

The academic profession and the rising knowledge societies in Africa: A comparative analysis of research, teaching and community outreach in Makerere University and the University *of the* Western Cape

Florence Ndibuuza

Student Number: 3774891

PhD Thesis submitted to the Institute of Post School Studies, Faculty of Education, University *of the* Western Cape



In partial fulfilment of the requirements for the Doctor of Philosophy (PhD) degree in Higher Education Studies

Supervisor: Prof. Patrício Langa

Prof. Ronald Bisaso

(Co-supervisor)

October 2020

Declaration

I hereby declare that this PhD thesis entitled *the academic profession and the rising knowledge societies in Africa: A comparative analysis of research, teaching and community outreach in Makerere University and the University of the Western Cape* is my work and that I have not previously submitted it at any university for a degree or examination. All sources that I have quoted are indicated and duly acknowledged by means of reference.

.....

Florence Ndibuuza

October 2020



Acknowledgement

This thesis is a product of the love and support of mentors, sponsors, family and colleagues. My greatest appreciation goes to my supervisors Prof. Patricio Langa and Prof. Ronald Bisaso for the opportunity to pursue this degree. It was also your constructive criticism, support and commitment to supervision that shaped this thesis.

Special thanks go to the Carnegie Corporation of New York and the University *of the* Western Cape for the financial and academic support throughout this journey.

I greatly appreciate the academic staff of Makerere University and the University *of the* Western Cape who created time for me to collect data for the project. It is your support that brought this project this far.

I specifically want to thank Prof. Joy Papier for the mentorship, motherly advice and support throughout this journey. I also want to thank the post-doctoral fellows: Dr. Nelson Nkoma, Dr. Patrick Swanzy, Dr. Ibrahim Harun and Dr. Doreen Rugendo for the academic support at different stages of this journey. I am indebted to colleagues at the Institute for Post School Studies, the post-doctoral fellows and the mentors from the postgraduate school of UWC that advised and guided me on this journey.

Appreciation goes to my mother and siblings whose prayers and encouragement pushed me through tough times.

I thank the Almighty God who has always guided my life with his grace.

Dedication

To the Almighty God for his grace and mercy upon my life.

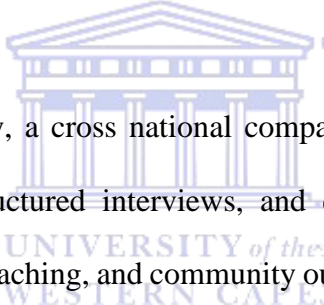
To my mother Mrs. Theopista Nambi Kibuguju Luzira for the love and prayers

To my siblings for the support and prayers.



Abstract

This thesis explores the fate of the academic profession at Makerere University [MUK], Uganda and the University of the Western Cape [UWC], South Africa. The study explores higher education as a strategy prioritized to drive knowledge production, innovation, ICT integration, and human resource development to position economies across Sub Saharan Africa among knowledge economies. While the study recognizes that the initiatives in Uganda and South Africa are at a policy rhetorical level hence categorizes the two as “rising knowledge societies”, the policy implications on universities as the main seat of knowledge and innovation in the two countries motivated the study to establish if the academic profession at MUK and UWC is changing in response to the policy interests of the rising knowledge society in the two countries.



Using the neo-institutional theory, a cross national comparative concurrent mixed methods design through survey, semi-structured interviews, and document analysis examined the trajectory of academic research, teaching, and community outreach in the two universities. The results show a rather moderate response of the academic profession to national policy needs in the two institutions though aspects unique to each institution exist. That is, academic research is leaning more towards application in both universities. Teaching rests more on learner-centered instruction and performativity in MUK than UWC. Community outreach is changing in MUK contrary to UWC due to institutional rather than national pressure. Overall, institutional reality specific to limited interest and capacity to innovate, enrolment patterns, and the influence of donors in knowledge production in each university sometimes overrule state influence in shaping the priorities of academics in their work.

Therefore, the study draws two conclusions, the first is that there is a rather common than divergent pattern in the practice of the academic profession in the two universities. The second

is that the academic profession in the two universities exhibits change, which could plausibly be in response to the policy interests of the rising knowledge society in the two countries. This implies that contemporary challenges for the academic profession overlook national socio-economic differences, which emphasizes the idea that universities in Uganda might have demands closely related to those required of universities in South Africa. This thesis extends the debate on how institutions can prepare the academic community for a pragmatic approach to the emerging demands of the knowledge age.



Keywords

Academic profession

Academics

Change

Community outreach

Neo institutional

Research

Rising Knowledge society

South Africa

Teaching

Uganda



Table of content

Declaration.....	i
Acknowledgement	ii
Dedication.....	iii
Abstract.....	iv
List of Abbreviations	xii
List of Tables	xiv
List of Figures.....	xv
Chapter One	1
Introduction.....	1
1.1 Background to the Study.....	1
1.2 Statement of the Problem.....	6
1.3 Main Research Question of the Study.....	8
1.4 Study Sub questions.....	8
1.5 Aim of the Study	9
1.6 Study Objectives	9
1.7 Justification of the Study	9
1.8 Thesis Structure	10
Chapter Two.....	12
Literature Review.....	12
2.1 Introduction.....	12
2.2 Knowledge Society	12
2.2.1 Origins of the Knowledge Society.....	12
2.2.2 The Global Perspective of the Knowledge Society	14
2.2.3 The Knowledge Society Agenda in Africa	16
2.2.4 The Knowledge Society Agenda in Uganda and South Africa.....	21
2.2.4.1 Uganda	22
2.2.4.2 South Africa	26
2.3 Academic Profession	29
2.3.1 The Concept of Academic Profession.....	29
2.3.2 Global Trends in the Academic Profession	30
2.3.2.1 Academic Research and the Knowledge Society	32
2.3.2.2 Teaching and the Knowledge Society	35

2.3.2.3	Community Outreach and the Knowledge Society	38
2.3.3	Academic Profession in Uganda and South Africa.....	41
2.3.3.1	Uganda	41
2.3.3.2	South Africa	43
2.4	Conclusion	44
Chapter Three.....		46
Theoretical Framework.....		46
3.1	Introduction.....	46
3.2	Origins of Neo institutionalism.....	49
3.3	Core Elements of Neo institutionalism	50
3.3.1	Institution	50
3.3.2	Legitimacy	52
3.3.3	Isomorphism	54
3.4	Neo Institutional Change	57
3.5	Criticisms of Neo Institutionalism.....	59
3.6	Conclusion	60
Chapter Four		62
Methodology.....		62
4.1	Introduction.....	62
4.2	Research Methodology	62
4.3	Research Design of the Study	64
4.4	Rationale for the Selection of MUK and UWC	66
4.5	Data Collection	68
4.5.1	Procedure for Data Collection	72
4.6	Reliability and Validity of the Data	73
4.6.1	Reliability and Validity of Qualitative Data	73
4.6.2	Validity and Reliability of Quantitative Data	74
4.6.2.1	Reliability Analysis of the Measuring Instrument (MUK).....	74
4.6.2.2	Reliability Analysis of the Measuring Instrument (UWC).....	75
4.7	Data Analysis.....	76
4.8	Researcher's Role and Reflexivity.....	77
4.9	Ethics Considerations.....	78
4.10	Conclusion	79

Chapter Five.....	80
Response of the Academic Profession to the Policy Needs of Uganda and South Africa.....	80
5.1 Introduction.....	80
5.2 Results and Discussion, Makerere University, Uganda.....	80
5.2.1 Knowledge Production for Innovation.....	82
5.2.1.1 Research Output	82
5.2.1.2 Innovation	85
5.2.1.3 Postgraduate Output	87
5.2.2 Human Resource Production	89
5.2.2.1 Quality and Quantity of Human Resource	90
5.2.2.2 Curriculum	93
5.2.3 ICT Integration in Universities	95
5.2.3.1 Academic Responsibility.....	95
5.3 Results and Discussion, University of the Western Cape, South Africa.....	97
5.3.1 Knowledge Production.....	100
5.3.1.1 Research Output	100
5.3.1.2 PhD Output.....	102
5.3.1.3 Innovation	104
5.3.2 Human Resource Development.....	105
5.3.2.1 Nature of Human Resource	106
5.4 Comparative Analysis of MUK and UWC	110
5.5 Conclusion	112
Chapter Six.....	114
Nature of the Academic Profession in Makerere University and the University of the Western Cape	114
6.1 Introduction.....	114
6.2 Background Information.....	114
6.3 Nature of Research, Teaching and Community Outreach in MUK and UWC	119
6.3.1 Research.....	120
6.3.1.1 Research Approach	121
6.3.1.2 Contribution to the Science Community	123
6.3.1.3 Collaboration.....	129
6.3.1.4 Scholarly Contributions.....	130
6.3.1.5 Fundraising.....	132

6.3.1.6	Teaching research nexus	133
6.3.1.7	Comparative Summary of the Features of Research in MUK and UWC.....	134
6.3.2	Teaching.....	136
6.3.2.1	Approach to Teaching	136
6.3.2.2	Institutional Load Targets	143
6.3.2.3	Teaching Enhancement	144
6.3.2.4	Comparative Summary of the Features of Teaching in MUK and UWC	146
6.3.3	Community Outreach.....	147
6.3.3.1	Research based Activities for Community Outreach	152
6.3.3.2	Teaching based Activities for Community Outreach	153
6.3.3.3	Importance of Community Outreach.....	155
6.3.3.4	Comparative Summary of the Features of Community Outreach in MUK and UWC	156
6.4	Conclusion	157
Chapter Seven		159
Trajectory of the Academic Profession in Makerere University and the University of the Western Cape		159
7.1	Introduction.....	159
7.2.1	Research in MUK	159
7.2.1.1	Dynamic Elements in Research.....	163
7.2.1.1.1	Research Identity.....	163
7.2.1.1.2	Collaboration.....	166
7.2.1.1.3	ICT in Research	167
7.2.1.2	Blended Approach to Research	168
7.2.1.2.1	Importance of Basic Research.....	168
7.2.2	Teaching in MUK	169
7.2.2.1	Dynamic Elements in Teaching	169
7.2.2.1.1	Approach to Teaching	170
7.2.2.1.2	Profile of the learners	171
7.2.2.1.3	The Contemporary Graduate.....	173
7.2.3	Community Outreach in MUK	174
7.2.3.1	Dynamic Elements in Community Outreach.....	174
7.2.3.1.1	Nature of Community Outreach.....	174
7.2.3.1.2	Conditions of Knowledge Sharing	176
7.3	Results and Discussion in UWC	177

7.3.1	Research in the University of the Western Cape	177
7.3.1.1	Dynamic Elements in Research.....	177
7.3.1.1.1	Approach to Research	180
7.3.1.1.2	Research Funding.....	181
7.3.1.1.3	Research Output	182
7.3.1.1.4	Tools for Research	183
7.3.2	Teaching in the University of the Western Cape	184
7.3.2.1	Dynamic Elements in Teaching	184
7.3.2.1.1	Teaching Styles	185
7.3.2.1.2	Technology.....	186
7.3.2.1.3	Nature of Graduates	187
7.3.3	Community Outreach in UWC	188
7.3.3.1	Nature of Community Outreach.....	188
7.3.3.1.1	Community Outreach as a Secondary Practice	189
7.3.3.1.2	Social responsibility.....	190
7.3.3.1.3	Career Growth.....	191
7.4	Comparative Analysis of the Trends in the Academic Profession in MUK and UWC	192
7.5	Conclusion	194
Chapter Eight		196
Summary and Conclusion		196
8.1	Introduction.....	196
8.2	Summary of the findings of the Study	196
8.2.1	Response of the Academic Profession to the Policy Needs of the Rising Knowledge Society in Uganda and South Africa.	197
8.2.2	Nature of the Academic Profession in MUK and UWC.....	200
8.2.3	Trajectory of the Academic Profession.....	202
8.3	Interpretation of the Framework for Analysis.....	204
8.4	Implications of the Study	210
8.5	Contributions of the Study	212
8.6	Direction for Future Research.....	213
References.....		214
Appendices.....		257

List of Abbreviations

AUC	African Union Commission
CHE	Council on Higher Education
CWUR	Center for World University Ranking
DHET	Department of Higher Education and Training
DST	Department of Science and Technology
DTPS	Department of Telecommunications and Postal Services
HRDC	Human Resource Development Council of South Africa
ICT	Information and Communication Technology
MFPEd	Ministry of Finance Planning and Economic Development
MICT	Ministry of Information and Communication Technology
MUK	Makerere University
NCHE	National Council of Higher Education
NPA	National Planning Authority
NPC	National Planning Commission
NRF	National Research Foundation
PDD	Planning and Development Department
RKS	Rising Knowledge Society
SAQ	Self-Administered Questionnaire
SPSS	Statistical Package for Social Sciences
STEM	Science, Technology, Engineering and Mathematics
STI	Science, Technology and Innovation
THEUR	Times Higher Education University Ranking
UNESCO	United Nations Educational, Scientific and Cultural Organization

UNCST Uganda National Council for Science and Technology

UWC University *of the* Western Cape



List of Tables

Table 4.1: Reliability Statistics for Research, Teaching, Community Outreach and the Rising Knowledge Society (MUK)	75
Table 4.2: Reliability Statistics for Research, Teaching, Community Outreach and the Rising Knowledge Society (UWC)	76
Table 5.1: Themes, Subthemes and Categories in the national policy documents of Uganda	81
Table 5.2: Themes, Subthemes and Categories in the national policy documents of South Africa	99
Table 6.1: Demographic characteristics of academics of MUK and UWC.....	116
Table 6.2: Rating of Research Activities by Academics of MUK and UWC.....	124
Table 6.3: Summary of the Rating of Research Activities by Academics of MUK and UWC	126
Table 6.4: Rating of Teaching Activities by Academics of MUK and UWC	140
Table 6.5: Summary of the Rating of Teaching Activities by Academics of MUK and UWC	142
Table 6.6: Academics responses about community outreach activities.....	148
Table 6.7: Summary of Academics' Ratings of Community Outreach Activities	150
Table 7.1: Themes, Subthemes and Categories in Research, Teaching and Community Outreach in MUK	161
Table 7.2: Themes, Subthemes and Categories in Research, Teaching and Community Outreach in UWC	178

List of Figures

Figure 3.1: Schematic Representation of Neo institutionalism in the study.....	61
Figure 5.1: Research Publications in the Scopus Database for MUK	84
Figure 5.2: Scopus Research Publications by Subject Area	84
Figure 5.3: Postgraduate Enrolment, MUK 2007-2008 & 2011-2018	88
Figure 5.4: Postgraduate Graduation, MUK 2008-2009 & 2011-2018	88
Figure 5.5: Undergraduate Enrolment, MUK 2007 & 2011-2018.....	92
Figure 5.6: Undergraduate Graduation, MUK 2011-2018.....	92
Figure 5.7: Undergraduate and Postgraduate Enrolment in ICT Fields, MUK 2007& 2011-2018.....	97
Figure 5.8: UWC publications Units 2008, 2010 & 2012-2018	101
Figure 5.9: Postgraduate Enrolment, UWC 2007-2018.....	103
Figure 5.10: Postgraduate Publication Units UWC, 2008, 2010 & 2012-2018.....	103
Figure 5.11: Total Student Enrolment UWC 2012-2017	107
Figure 5.12: Total Student Enrolment UWC 2012-2017 by Field of Study	108
Figure 6.1: Academics involvement in research in MUK and UWC	121
Figure 6.2: Features of Research in MUK and UWC.....	122
Figure 6.3: Teaching Research nexus in MUK and UWC.....	133
Figure 6.4: Academics' Involvement in Teaching in MUK and UWC.....	137
Figure 6.5: Academics' Teaching Load in MUK and UWC	137
Figure 6.6: Features of Teaching Styles in MUK and UWC.....	139
Figure 8.1: Neo Institutionalism: A modified Scheme	207

Chapter One

Introduction

1.1 Background to the Study

The twenty-first century has been dubbed a knowledge era to reaffirm the importance of knowledge as a salient factor in contemporary development (Kaur & Singh, 2016). Indeed, the discourse on the diminishing value of physical factors of production like land and labor has dominated literature in the past two decades as an affirmation that knowledge societies are the trend of the current age (Kaur & Singh, 2016; Fathollahi, Momeni, Elahi & Najafi, 2017). Participating in the knowledge age has therefore become a common sense position across the globe with entire continents and nations regardless of the level of development striving to build knowledge societies (Snellman, 2015; UNESCO, 2016a; World Bank, 2017).

Nevertheless, three groups of critics question the idea of a knowledge society, first are those who view it as a mere concept popularised by politicians, academia and the media as a tool of modern development (Asmal & Kahn, 2000; Bastalich, 2010; Eekelen, 2015). Ultimately, the three studies suggest that knowledge society is a myth that does not describe contemporary economic trends. The second group of critics questions knowledge as a factor of production given that it has always been part of human growth and development (David & Foray, 2003; Kefela, 2010; Ricaurte, 2016). The third group of critics questions the kind of knowledge required in the knowledge age given that scientific knowledge is favoured against indigenous and other traditional forms of knowledge in the modern age (Durie, 2005; Drahansky, Paridah, Moradbak, Mohamed, Owolabi, Ashiza...et al., 2017; Mavhunga, 2017).

UNESCO (2005) recognized that the knowledge assets of each society are important in the construction of a knowledge society, which suggests that subjugating some forms of knowledge is a shortfall of the knowledge age. However, contemporary literature has addressed other

criticisms of the knowledge society, that is, Hornidge (2011) and Gashi (2015) identify the knowledge society with high volumes of knowledge accompanied by innovation and technology, which sets it apart from prior stages of development in history. At the same time, the commitment reflected in national and international policy documents which Hooker (2010) and Hornidge (2011) noted as encouraging the construction of knowledge societies by governments globally present it as an undeniable element of the current age.

Ultimately, the African continent and nations have expressed interest in participating actively in the knowledge age though this is viewed with scepticism more so for those who think that African nations are still far from the knowledge society status (Holmner, 2008; Britz, Lor, Coetzee & Bester, 2013; Jiyane, Majanja, Mostert, & Ocholla, 2013). The three studies base on the low stock of knowledge reflected in indicators like the low knowledge creation, number of qualified researchers, investment in research and development, ICT, education and training, number of patents and researcher population ratio to denounce Africa as a knowledge society. Others claim that Africa is just a victim of misinterpretation; hence, the perceived is different from the actual Africa with a wealth of indigenous knowledge upon which its knowledge societies are built (Mudimbe, 1988; Hamel, 2004; Ndofirepi, 2017). Yet others are just optimistic, they claim that African nations can build knowledge societies and catch up with the advanced nations (UNESCO, 2016a; Asongu, 2017; Vadra, 2017).

In regard to the controversy about knowledge societies in Africa, I use the term rising knowledge societies for two reasons, the first is to acknowledge that African nations are at the initial stages of constructing knowledge societies (UNESCO, 2016a; Asongu, 2017; Asongu, Tchamyau, & Acha-Anyi, 2020). The second is the idea that knowledge societies have no standard model hence, nations can leapfrog from whatever stage of development to the knowledge society stage (Sundać & Krmpotić, 2011; Kornienko, 2015; UNESCO, 2016a).

Thus, the interest of the study in Uganda an agricultural economy (National Planning Authority, 2015) and South Africa an industrial economy (Industrial Development Corporation, 2017) striving for knowledge society status.

In the past decade, Uganda has committed itself to the transformation to a knowledge society with milestones reflected in the national vision (Bassi & Finquelievich, 2013). Vision 2040 specified, “Uganda will reorient its self to make science, technology, engineering and innovation the main driver of economic growth and the key pillar of competitiveness” (NPA, 2007: 75). This commitment has led to the formation of policies and strategies to aid the transformation to a knowledge society. These include the Science, Technology and Innovations Policy; the Information and Communication Technology Policy and the National Human Resource Development Plan. The policies call for boosting knowledge production, innovation and human resource training tailored to the knowledge age a basic preserve of the university sector in the country (Uganda National Council for Science and Technology, 2016). Therefore, rather than a physical environment, the rising knowledge society in Uganda is more of a policy environment with specific implications for the university (Bassi & Finquelievich, 2013; Swarts, Hooker, Chehidi, & Kumar, 2017).

In South Africa, the knowledge society agenda is referenced in national policy documents rooted in the national development plan for vision 2030 (National Planning Commission, 2011). This calls for all sectors of the economy to be promoted in a manner that will allow transition to the knowledge society (NPC, 2011). Thus, in the past decade, the government has produced white papers and policies aimed at propelling the nation to a knowledge society. These include the 2008-2018 plan of innovation; the National Integrated ICT Policy White Paper; the White Paper on Science Technology and Innovation; the National eStrategy and the Industrial Policy Action Plan.

The policy context conveyed by the knowledge society agenda has led to the emergency of three policy initiatives that directly affect operations in universities. The first is the white paper for post school education and training that requires universities to focus more on graduate education, deepening partnership with the industry and innovation for a growing knowledge society (Department of Higher Education and Training, 2014). The second is the Human Resource Development Strategy 2010-2030 that is calling for among other things, an increase in postgraduate degrees and honours graduates in science, engineering and technology from universities (Human Resource Development Council of South Africa, 2009). The third is the research output policy that is focusing on research and other knowledge outputs among public universities. Thus, the policy environment created by the knowledge society agenda in South Africa just like Uganda is raising expectations for universities.

The past decade has therefore been marked with the discourse on the role of the university in the knowledge age upon which Boaventura (2010) Cernat (2011) and Henkel (2007) and Snellman (2015) note that the mandate of universities is expanding. The four studies particularly suggest that the contemporary university exhibits three characteristics. The first is the growing value of knowledge, which is putting the university and consequently academics in competition and linkage with the industry leading to shift in research and knowledge production. The second is the increase in demand for higher levels of education to cater for the technology and knowledge intensive sectors of the knowledge age, which is affecting the teaching function. The third is the growing expectation for academia to transcend the ivory tower status by embracing both intellectual and social functions. Social responsiveness accelerated with the knowledge age requiring knowledge responsive to societal needs, which is bolding the university and academics responsibility to society (Henkel, 2009; Snellman, 2015).

Thus, a specific strand in literature notes that the academic profession is changing as the university attends to emerging demands instigated but not limited to knowledge societies (Scott, 2006; Teichler, Arimoto & Cummings, 2013; Bexley, James & Arkoudis, 2011; Kwiek, 2016; Turk & Ledić, 2016). This debate particularly points to the shift in the practice of academic research, teaching and community outreach given that they are direct avenues of implementing university mandate. This discussion points to two aspects; the first is that the debate majorly represents the western perspective. Hence, this study explores the debate from the African perspective specific to policy environment for the rising knowledge society in Uganda and South Africa.

The second is that competing forces exist in shaping the contemporary academic profession given that the literature on the subject does not claim sole influence from knowledge societies. This is true with the academic profession in Africa given the foundational role of neoliberalism specific to market driven research and teaching consistent with universities in Uganda (Ochwa-Echel, 2013; Sifuna, 2014) and South Africa (Baatjes, 2005; van der Walt 2017). At the same time are the effects of post-colonial development targets for academics through the higher education sector in Uganda (Bisaso, 2017) and the post-apartheid expectations for the academic profession specific to the perceived role of higher education as an instrument of socio-economic change in the democratic South Africa (Wolhuter, Higgs, Higgs, & Ntshoe, 2010; Wolhuter, 2015). In essence, past developments may contributively affect the academic profession but this study focuses on the debate on knowledge societies because it is the most recent dilemma for the higher education sector (Välismaa & Hoffman, 2008; Boaventura, 2010; Snellman, 2015; Molla & Cuthbert, 2018).

It is further important to note the possibility of the academic profession in Uganda and South Africa facing the same fate as the global academic community including but not limited to the

pressure for a teaching research nexus, research productivity and massification (Portnoi, 2015; Wolhuter, Higgs, & Higgs, 2016; Teferra, 2016). However, the policy environment and its needs highlighted in this discussion provides a unique layer for the exploration of the academic profession. In light of the discussion, this study focuses on establishing if the academic profession is changing in response to policy interests of the rising knowledge society in Uganda and South Africa. Specific interest rests on Makerere University (MUK) and the University of the Western Cape (UWC).

1.2 Statement of the Problem

The idea of knowledge societies is growing in popularity globally given that it is the most current internationally agreed upon framework for inclusive human progress in view of the 2030 sustainable goals (UNESCO, 2016). Consequently, the knowledge society agenda has put higher education systems at the centre of the continental and national economic plans in Africa (Molla & Cuthbert, 2018). At the continental level, Agenda 2063 expects an over 70% enrolment and graduation in science and technology to transform Africa into a knowledge society (AUC, 2015). The Science, Technology and Innovations Strategy 2024 expects an increased investment in research and development to boost innovation (AUC, 2014). Yet the Continental Education Strategy 2016-2025 expects the development of human resource with the knowledge and skills required for knowledge led development (AUC, 2016). Consequently, the revitalisation of higher education specific to increasing PhD output, publications, innovations and intellectual capital development has been identified as a strategy to address the knowledge society agenda for Africa (Molla & Cuthbert, 2018). The three studies therefore suggest that universities are under pressure to tailor their mandate to emerging expectations.

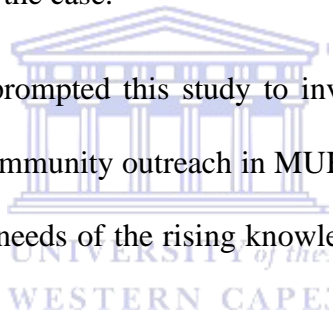
At the national level, more so with reference to the two countries under study, policies and strategies enacted in the last decade are challenging the university to contribute to the growth

and transformation to a knowledge society in Uganda (NPA, 2015; 2018) and South Africa (Blankley & Booyens, 2010). At the same time, literature that addresses the knowledge society in Uganda suggest more expectations for universities and consequently the academic profession. That is, Brar, Farley, Hawkins and Wagner (2011) established that it is science and technology that will sustain Uganda's pursuit of a knowledge society. Najjingo (2016) reports a call on universities in the country to focus on research to aid the creation of new knowledge and advance productivity in society. Yet Muvawala (2017) calls upon universities to focus on creating a workforce with knowledge and skills for all sectors of the economy for Uganda to participate favourably in the knowledge age. In Uganda, research, technology and human resource development are sustained by the academia which suggestively points to Leisyte and Dee (2012) call for an investigation of the academic work in the face of complex societal expectations. Hence, the academic profession in Makerere University as the leading institution in the country (Ochwa-Echel 2016) takes a focal point in this study.

As regards South Africa, studies like Blankley and Booyens (2010) investigated the idea of building a knowledge society in South Africa and recommended creating a highly skilled workforce, innovation and boosting knowledge generation, which are a preserve of universities in the country. Pouris and Inglesi-lotz (2014) recognised the university as a cornerstone to a knowledge society and called upon the institutions in the country to embrace their role with a purpose. Ramoroka, Tsheola and Sebola (2017) discovered that pedagogical transformation is a panacea to the country's creation of a knowledge economy suggesting a transformation of the teaching practice. Studies (Wolhuter & Higgs, 2006; Wolhuter et al., 2010; Wolhuter, 2015; Wolhuter et al., 2016) explored the idea of the changing academic profession and recognised the emerging pressure to serve contemporary South Africa. This possibly explains why Wolhuter (2015) advocates for establishing current trends in academic work in universities like UWC given that the last survey happened almost a decade ago.

There are three points to note from the discussion. The first is that at the national level, there are emerging expectations related to the policy needs specific to serving the rising knowledge society in Uganda and South Africa in the last decade. The second is that the cited literature like most literature on knowledge societies in Africa in the past decade explores the subject at a macro level (Cloete, Bunting, & Schalkwyk, 2018). That is, the focus is on what the university as an entity can offer towards growth and development. Hence, a need for a micro focus specific to the academic profession which is the direct link between the university and society (Scott, 2006; Altbach, 2013; Teichler et al., 2013). The third is that expectations seem to suggest spontaneous adjustment of the academic profession since Molla and Cuthbert (2018) note that universities will only remain competitive if they respond to the development needs of the knowledge age which may not be the case.

Therefore, the identified issues prompted this study to investigate the academic profession through research, teaching and community outreach in MUK and UWC to establish if there is change in response to the policy needs of the rising knowledge society in Uganda and South Africa in the last decade.



1.3 Main Research Question of the Study

In the context of the identified research problem, the study addressed the question:

Is the academic profession specific to research, teaching and community outreach in Makerere University and the University *of the* Western Cape changing in response to the policy needs of the rising knowledge society in Uganda and South Africa, 2007-2018?

1.4 Study Sub questions

- 1) To what extent do documented practices in research, teaching and community outreach in MUK and UWC demonstrate response to the policy needs of the rising knowledge society in Uganda and South Africa 2007-2018?

- 2) What is the nature of academic research, teaching and community outreach in MUK and UWC?
- 3) What is the trajectory of academic research, teaching and community outreach in MUK and UWC 2007 through 2018?

1.5 Aim of the Study

The aim of this research is to establish whether academic research, teaching and community outreach are changing due to the policy needs of the rising knowledge society in Uganda and South Africa. It specifically draws from the experience of two universities in Africa, Makerere and the University of the Western Cape to understand the response, nature and trajectory of the academic profession in the two universities.

1.6 Study Objectives

- 1) To establish the extent to which documented practices in research, teaching and community outreach in MUK and UWC demonstrate response to the policy needs of the rising knowledge society in Uganda and South Africa 2007-2018.
- 2) To establish the nature of academic research, teaching and community outreach in MUK and UWC.
- 3) To establish the trajectory of academic research, teaching and community outreach in MUK and UWC 2007 through 2018.

1.7 Justification of the Study

Altbach (2014: 1319) in his work on higher education as a field of study stated:

Higher education studies as a field is significantly unbalanced, most of the research and publications reflect the realities of industrialised nations despite the fact that most growth is taking place in developing and middle-income countries.

Indeed, the discourse on the knowledge society has been explored extensively in relation to the university and academia but from mostly a western perspective (Stensaker & Benner 2013; Snellman 2015; Akker & Spaapen 2017). The discourse on the knowledge society agenda in Africa has so far been on the challenges it poses for universities (Salmi, 2010; Asongu, 2015; Molla & Cuthbert, 2018). Thus, it is imperative to understand the situation from a more specific level, that is, the academic profession at the center of the needs of the knowledge age which Harle (2013) noted as ignored in the developing world. Thus, exploring the trends in the academic profession through MUK and UWC in Uganda and South Africa respectively will extend the body of knowledge in the field.

1.8 Thesis Structure

The thesis is organised into eight chapters. **Chapter One**, the introductory section contains the background, which presents the context of the study and the statement of the problem. It further presents the study question, sub questions, objectives, the aim and the justification of the study.

Chapter Two is dedicated to a comprehensive review of literature on the academic profession and the knowledge society. The debate focuses on academic research, teaching and community outreach. It explores the origins, trends and perspectives in each of the practices in the contemporary literature. It further explores the academic profession in Uganda and South Africa. On the other hand, it examines the concept of a knowledge society, its origin and constructs. It further explores Uganda and South Africa as rising knowledge societies.

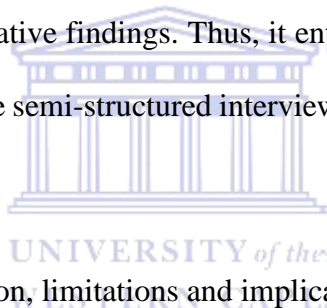
Chapter Three presents the theoretical framework of the study. It examines the neo-institutional perspective and the competing theories for the study. It further explores the aspects of institution, legitimacy; isomorphism and the neo institutional path of change in light of the academic profession in a rising knowledge society.

Chapter Four is dedicated to the methodology of the study. It examines neo institutionalism and the mixed methods methodology. It further discusses the research design, process, tools and assumptions. It also discusses the ethical considerations for the study.

Chapter Five focuses on the review of policy and institutional documents for Uganda and South Africa and MUK and UWC respectively. It presents the analysis and discussion of the emerging themes against secondary data from the neo institutional framework.

Chapter Six focuses on empirical evidence. Thus, entails the presentation, analysis and discussion of quantitative findings. The neo institutional framework guides the discussion in this chapter.

Chapter Seven focuses on qualitative findings. Thus, it entails the analysis and discussion of the findings that emerged from the semi-structured interviews. The discussion rests on the neo institutional framework.



Chapter Eight is on the conclusion, limitations and implications of the study.

Chapter Two

Literature Review

2.1 Introduction

This chapter examines the discourse on the academic profession in a rising knowledge society. It explores the origins, the global narrative and the experience from Uganda and South Africa. The chapter has two sections; the first covers the knowledge society. The focus in this section is the origins, the contemporary debate on the subject, the debate in Africa mostly at policy level and the policy leaning in Uganda and South Africa. The second covers the academic profession with specific focus on the conceptualisation of the academic profession, the academic profession in Africa and the debate on the trends in academic research, teaching and community outreach in a knowledge society.

2.2 Knowledge Society

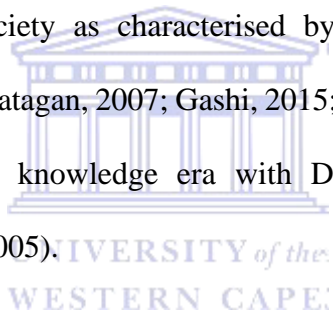
2.2.1 Origins of the Knowledge Society

The idea of a knowledge society traces its roots in the nineteenth century work of Karl Marx on society in which he predicted the rise of knowledge as a factor of production (Stehr, 2010) and the resultant social relations reflective of the rising dependency on technology and knowledge, which would minimise the use of physical labour (Stehr, 2010; Phillips, Yu, Hameed, & El Akhdary, 2017). Midway through the nineteenth century, the work of John Stuart Mill eluded to knowledge supremacy when he suggested that progress in his age would depend on intellectual accomplishments (Stehr, 2010). In the proceeding period, the age of optimism emerged, which the aforementioned study credits with instilling the hope that knowledge would create a society based on scientific reasoning. In essence, the notion of a knowledge society existed among intellectuals long before it received world appreciation.

The contemporary understanding of a knowledge society relates to its difference from two prior stages of development, which studies like (Drucker, 1993; Delanty, 2003; Carlaw, Oxley,

Walker, Thorns, & Nuth, 2006; Stehr, 2012) credits with shaping the development history. The first is the agrarian stage associated with technological improvement, which revolutionised agricultural productivity. The second is the industrial stage, which set its self apart with the use of new technologies, motive power and the reskilling of human labour from craft working. The third stage is the knowledge age, which has elevated the importance of knowledge as a factor of production compared to the earlier two stages of development (Drucker, 1993).

Studies (Drucker, 1993; Carlaw et al., 2012; Weber, 2011) suggest that the knowledge stage commenced after World War II with specific reference to Peter Drucker's work on "the age of discontinuity" in the 1960s in which he identified the modern society as a knowledgeable society with knowledge applied to knowledge. Relatedly is the work of Daniel Bell who identified the post-industrial society as characterised by the dominance of science and knowledge as values of society (Batagan, 2007; Gashi, 2015; Kornienko, 2015). Thus, Bell and Drucker formally identified the knowledge era with Drucker specifically terming it a knowledge society (UNESCO, 2005).



Further clarity to the knowledge age relates to the work of four other scholars, the first is Manuel Castell that identified and described an information age anchored on information and communication technologies (Castell, 2005; Stehr, 2010; Anttiroiko, 2015). The three studies relate the information society to the dominance and importance of knowledge upon which ICT emerged as a pillar of the contemporary society. The second is Masuda who also described an information society around the 1980s characterised by information as a central feature in production, innovation, and consumption, hence, emphasizing the power of technology in the modern society (UNESCO, 2005, 2016a).

The third is Powell and Snellman who describe a knowledge economy focused on knowledge gains as the main value of capital accumulation (Gashi, 2015; Kornienko, 2015; UNESCO,

2016a). The fourth are Robin Mansell and Nico Stehr whose work in the 1990s emphasized the growing importance of knowledge as a factor of production compared to land, labour and capital, which describes the reining knowledge society (Stehr, 2007; 2009; Stehr & Adolf, 2018). Whereas all the noted scholars highlight the salience of knowledge to modern societies, the knowledge society is preferred to define the current age because it does not only view knowledge as key to economic growth but also empowering and developing all sectors of society (UNESCO, 2016a). The ensuing subsection discusses further the global narrative on the contemporary knowledge societies.

2.2.2 The Global Perspective of the Knowledge Society

The idea of a knowledge society has dominated literature in the past two decades with controversy surrounding the concept and its application to contemporary social economic and political makeup of the twenty-first century (Carlaw et al., 2012; Roberts, 2009; Andrés, Asongu, & Amavilah, 2015; UNESCO, 2016; Asongu et al., 2020). Indeed, at the concept level, literature that tackles the knowledge society reflects two characteristics; the first is that it acknowledges that that the concept has no specific definition (Rieu, 2005; Carlaw et al., 2012; Roberts, 2009; Amavilah, Asongu, & Andres, 2014). The second is that at the practice level, there is no consensus on whether the concept represents anything new or the existence of the phenomena its self (Bratianu & Dinca, 2010; Britz et al., 2006; Carlaw et al., 2012; Roberts, 2009; Weber, 2011; Stehr & Adolf, 2018; Asongu et al., 2020).

However, the scholarly interest shown in the suggested “non-existent” concept in theory and practice simply affirms its significance in modern society, in any case the World Bank (2007) and UNESCO (2016a) representing two of the global influencing bodies recognise and associates it with contemporary social economic trends. At the same time, contemporary societies cannot ignore the scale and rate at which knowledge facilitates the production of

goods and services (Brinkley, 2006; Hornidge, 2011; Gashi, 2015). Neither can they ignore the technological changes in the past three decades and their effect on modern human life (Smith, 2000; Bratianu & Dinca, 2010; Pons, 2010; UNESCO, 2016b). This suggests that knowledge societies do exist especially among developed countries, which contrast sharply with developing nations particularly in Africa in terms of knowledge accumulation and use (Britz et al., 2006; Sanyal & Varghese, 2006; Asongu, 2013; Asongu & Nwachukwu, 2017).

Consequently, the idea of a knowledge society is described in various ways in literature to allude to specific characteristics, studies like (OECD, 1996; Brinkley, 2006; Stehr, 2009; Stehr & Adolf, 2018) associate it with the use of knowledge and information for development. Others including Pons (2010) and the Global eSchools and Communities Initiative (2011) relate a knowledge society to an economy where technology specifically ICT has revolutionised knowledge production and information processing. Yet UNESCO (2016a) and World Bank (2017) describe a knowledge society as one in which people have the capacity not just to acquire information but also to transform it into knowledge and understanding to enhance livelihoods and contribute to the social economic development.

The description suggests that knowledge and technology form the foundation upon which knowledge societies function. This possibly explains why research and development, knowledge production, innovation, ICT, and education constitute the pillars of the knowledge age (Britz et al., 2006; World Bank, 2007; Weber, 2011; Asongu, 2015; Asongu & Nwachukwu, 2017). It is against this backdrop that indicators like access and use of modern ICT, number of scientists in the country, research and development expenditure, production and exportation of technology, number of patents and knowledge accumulation demonstrate the participation of a country in the knowledge age (Britz et al., 2006; Roberts, 2009; Blankley & Booyens, 2010; Jiyane, et al., 2013). Consequently, there is competition and dedication at

the global, continental and national level, African countries inclusive to accelerate progress towards a knowledge society (Britz et al., 2006; Molla & Cuthbert, 2018; UNESCO, 2016a; Asongu, 2017). The ensuing subsection therefore discusses the initiatives towards creating knowledge societies in Africa.

2.2.3 The Knowledge Society Agenda in Africa

The ambition to build knowledge societies in Africa rests on three aspects; the first are forces of globalisation that are drawing nations into a knowledge race as a survival plan of the current age (AUC, 2015; Bassi & Finquelievich, 2013; UNESCO, 2016a). The second is pressure on African nations from international donor agencies like the World Bank to contextualise global policies aimed at transforming nations into knowledge societies (Molla & Cuthbert, 2018a). The third is the knowledge gap between developed and developing nations, which is motivating the inclusion of the knowledge society agenda into the social, economic, and political development plans of the continent (AUC, 2015). It is therefore against this background that a number of strategies dedicated towards constructing knowledge societies in Africa emerged. AUC (2015) suggests that Agenda 2063 centralises the continental efforts towards the knowledge society agenda through emphasizing five aspects. The first is the development and use of new knowledge through innovative research, knowledge sharing and transfer. The second is a skills revolution underpinned by science, technology, and innovation. The third is the preservation and use of indigenous knowledge and technology among societies across the continent. The fourth is human capital development to boost knowledge production and innovation among economies. The fifth is the revitalisation of tertiary education involving improving its quality, access and relevance; creating centers of excellence to boost postgraduate studies and the effective use of ICT in instructional delivery and collaboration. This forms the background upon which this study identified and discusses five strategies laying a foundation for Africa's active participation in the knowledge age.

The first is the Science, Technology and Innovations Strategy for Africa (STISA 2024) which the African Union considers as a tool for innovation led development in Africa (AUC, 2014). STISA 2024 rests on three expectations for the fulfilment of the set agenda; the first is an increase in scientific output and use of African indigenous knowledge. The second is a steady investment in science, technology, and innovation by the African Union member states to boost research and development institutions. The third is equipping human resource with knowledge and skills to aid innovation, adaptation to technology and research. In essence, strategic innovation will aid the fulfilment of Agenda 2063 given that the strategy operationalizes the continental drive for knowledge societies in Africa (AUC, 2015).

The second is the Continental Education Strategy for Africa (CESA) 2016-2025, which targets availing the necessary human capital not just for sustainable development but also contributing worthily to a knowledge led economy (AUC, 2016). CESA is advocating for three aspects, the first is re-orienting Africa's education and training system to meet the level of knowledge, skills, innovation, and creativity required to nurture African core values and targets. The second is a strategic focus on research for scientific and technological innovation. The third is formulating policies to integrate ICT in education and training with focus on building the ICT capacity of learners and educators. Thus, given that knowledge societies survive on skilled human capital (World Bank, 2007; Muvawala, 2017), the strategy is a pathway to the continental development target.

The third is the African leadership in ICT programme a flagship project of the African Union Commission committed to developing a group of ICT and knowledge society leaders in Africa (GeSCI, 2011; Faye, 2016; Swarts et al., 2017). The three studies note the programme as focusing on creating awareness among African leaders on issues pertaining to development in the knowledge age specific to ICT, science, technology, innovation, and education. Thus,

through the organised conferences, the target is that participating nations will spearhead the construction of knowledge societies on the continent (Faye, 2016).

The fourth is the establishment of the Pan African University (PAU) by the African Union in 2010, which entails a network of existing universities operating at a graduate level to revitalise Africa's higher education (African Union, 2010; Molla & Cuthbert, 2018). That is, Jomo Kenyatta University represents East Africa, University of Ibadan, West Africa, University of Yaoundé Central Africa and the South, and a University in South Africa. The African Union (2010) suggests that PAU is focusing on two interrelated aspects, the first is enhancing graduate education to cover the research capacity and productivity gap in Africa. The second is training and producing knowledge workers especially in science, technology and innovation sectors with capacity to nurture a knowledge society. This advances the continents' chances in the knowledge race given that transforming Africa's higher education systems is a certified avenue for ensuring the availability of human capital required in the strategic sectors of contemporary competitive development (African Development Bank Group, 2008; 2012).

Relatedly, the agenda to revitalise Africa's higher education led to the convening of conferences key of which is the 2014 Kigali Communique on Higher Education for Science, Technology and Innovation (Government of Rwanda & the World Bank, 2014). The Kigali conference rested on the premise that STI bears capacity to transform African nations into knowledge based economies, thus the call for action entailed three aspects. The first is national higher education sectors ensuring the relevance of education to the contemporary labour market. The second is African governments supporting the improvement of university industry relations. The third is national policy commitment to the revitalisation of higher education to increase PhD programmes and output.

The centrality of higher education in the contemporary development agenda in Africa is thus

unrivalled (Molla & Cuthbert, 2018), which possibly explains further gatherings to this effect. That is, in 2015, the Dakar Declaration and Action Plan on Higher Education underscored by the knowledge economy agenda heightened the revitalisation of higher education for Africa's future (Trust Africa, 2015). This suggests that Agenda 2063 is under implementation given the focus on the revitalisation of tertiary education, which it identified as a tool that will make knowledge societies a norm in Africa by the 2060s (AUC, 2015).

The fifth strategy is the donor role in the construction of knowledge societies upon which the World Bank dominates the drive in Africa (World Bank, 2014; 2018). The World Bank funded the higher education centers of excellence project, 2014-2018, which partially implemented Agenda 2063 initiative of revitalising higher education in Africa to cover its knowledge gap. Molla and Cuthbert (2018) further associate the Bank with funding over 250 projects in 2015 on “education for a knowledge led economy” in addition to spending over 20 percent of its budget on education on Sub Saharan Africa. Other players include the Coalition of African Research and Innovation which funds scientific breakthroughs in Africa (Coalition of African Research Innovation, 2018). At the same time, the African Development Bank through the Higher Education, Science and Technology project funds the rehabilitation of science and technology infrastructure as well as projects that link science and technology to the productive sector in African universities (AfDB, 2012). In essence, donor agencies support the implementation of Africa's strategies towards constructing knowledge societies.

The discussion points to strategies being in full effect with expectations for individual government/s and individual higher education institutions especially universities. However, the shortfalls outweigh registered achievement considerably. That is, the slight boost in knowledge production among mostly flagship universities (Cloete et al., 2018) co-exists with the reality that Africa contributes just one percent of the global science (Fonn, Ayiro, Cotton, Habib,

Mbithi, Mteng...Ezeh, 2018; Wondwosen, 2019). This trend is attributed to challenges like the limited PhDs and brain drain given that the continent has 25 and 28 times fewer researchers per million than USA and UK respectively (CARI, 2018).

At the same time, the investment in R&D improved across sub-Saharan Africa with countries like South Africa, Botswana and Kenya investing over 0.7% of GDP (UNESCO Institute for Statistics, 2019). However, this is still below the one percent of the GDP investment to R&D recommended by the Science, Technology and Innovation Strategy for Africa (AUC, 2014). Relatedly, data shows that by 2016, USA had a 28% of the global investment for R&D, China 20%, the European Union, 19%, Japan, 10% and the rest of the world Africa inclusive 23% (UNESCO, 2016b). The trend persisted given that by 2018, Africa's investment in R&D was just 1.3% of the global investment (CARI, 2018) and 0.42% of the continent's GDP by 2019 (Wondwosen, 2019). Such shortfall pose a challenge to the continental quest, thus Asongu (2017) and Asongu and Nwachukwu (2017) note that Sub Saharan Africa mostly identifies with low levels of knowledge use in socio-economic development.

Indeed, contemporary literature on the knowledge society agenda in Africa reflects three strands. The first covers the challenges universities face as they contribute to national development with issues established as including the limited researchers, limited funding, brain drain, restricted relationship between the industry and science and heavy teaching load (Sanyal & Varghese, 2006; Mooko, Sall, & Cobbold, 2009; Carmody, 2013; Amavilah et al., 2014; Asongu & Nwachukwu, 2017). The second covers the revitalisation of African higher education upon which emerging issues include increasing PhD and research output, expanding access, innovation, and relevance of education to society yet also dwells on underlying challenges to set targets (Singh, 2011; Jegede, 2012; Jowi, 2012; Halvorsen, 2016; Teferra, 2016). The third focuses on the role of universities specific to the knowledge era upon which

evidence identifies mostly with the failure to meet expectations (Salmi, 2010; Jiyane et al., 2013; Cloete & Maassen, 2015; Oanda & Sall, 2016; Molla & Cuthbert, 2018). This further suggests setbacks to the continental agenda of having knowledge societies by 2063.

This subsection therefore suggests two things; the first is that the continental agenda on the construction of knowledge led economies in Africa is constrained by perennial social economic challenges among individual nations. The second is that expectations mostly focus on science, technology and innovation, knowledge production, human capital development and the integration of ICT in education and training hence, a checklist for nations vying for knowledge society status. Consequently, countries have embarked on developing and adapting policies reflecting priorities of the knowledge age (Molla & Cuthbert, 2018; Asongu & Kuanda, 2020; Asongu & Nwachukwu, 2017). The ensuing subsection discusses the policy undertakings of the countries of interest to this study, Uganda and South Africa.

2.2.4 The Knowledge Society Agenda in Uganda and South Africa

The contemporary development trends dictate that for countries to be prosperous and remain competitive, they have to adjust and adapt to the rules of the knowledge age (Asongu & Tchamyu, 2020). Thus, GeSCI (2011) and Bassi and Finquelievich (2013) suggest that national policies targeting the creation of knowledge societies are both the foundation and mechanism for coping with globalisation. This re-emphasizes the study's categorisation of economies in Africa as rising knowledge societies given that the agenda to foster active participation in the knowledge age is mostly at policy level specifically in Uganda (Bassi & Finquelievich, 2013; Swarts et al., 2017) and South Africa (Blankley & Booyens, 2010). This section therefore discusses the foundation and progress of the agenda for the construction of a knowledge society in the two countries.

2.2.4.1 *Uganda*

The idea of constructing a knowledge society originated in the Uganda Vision 2040, which at its inception suggested a knowledge driven transformation from a peasant to a modern and prosperous economy in a space of 30 years (NPA, 2007). Thus, in the past decade, policy makers and the government stressed the agenda with enacting policies on foundational targets for the construction of a knowledge society including science, technology and innovation, ICT, human resource development (Bassi & Finkelievich, 2013; Swarts et al., 2017). The two studies further suggest that the nations' policy focus does not only allude to the continental targets but also re-emphasizes the idea that the rising knowledge society in Uganda is more of a policy rather than a physical environment.

Henceforth, the trends in the policy agenda point to the 2007 document on the Uganda Vision 2040, which emphasizes focus on research and development, the production and use of scientific knowledge, knowledge networks and technology in the development of contemporary Uganda (NPA, 2007). The first traces of impact of the national development direction emerged in revision of the education sector strategic plan in 2008 characterised with an elevated focus on science, technology and expanding access to tertiary education to improve the quality and quantity of the national workforce (Ministry of Education and Sports, 2008). This was proceeded with a policy focus specific to the national science, technology and innovations policy formulated in 2009 with a goal of boosting the national capacity to generate and transfer knowledge (Ministry of Finance Planning & Economic Development, 2009). The STI policy came to full effect with the current operationalization under the 2012 national STI policy plan 2012/2013-2017/18, which focuses on research and development, university industry relations and human capital development for national development (MFPED, 2012).

Thus, the government recognises the role of applied STI for the desired knowledge led

development, which the African Leadership in ICT programmes associates with education, ICT and innovation as pillars for the construction of knowledge societies in Africa (GeSCI, 2011). GeSCI views education especially at the tertiary level as a requirement for boosting capacity in science and technology with ICT as the enabler of both innovation and education. ICT is associated with easing the sharing and retrieval of information as well as knowledge beyond geographical boundaries, which national education systems and institutions are compelled to embrace (Mouyabi, 2011; Adesina, 2015; Gashi, 2015). At the same time, ICT is a tool of globalisation with capacity to avail a nation with a competitive advantage in socio-economic goals (GeSCI, 2011). Thus, the aforementioned study notes that African countries, Uganda inclusive are prioritising ICT use in education and development.

Consequently, the government came up with a national ICT policy in 2014 rooted in Vision 2040, which associates ICT with exponential economic growth and improved productivity relevant to the construction and sustainability of a knowledge society (Ministry of Information and Communication Technology, 2014). This possibly explains why the second phase of the national development plan targets enhancing the use of ICT services in the strategic development sectors of the economy and increasing the quality and quantity of the ICT workforce (NPA, 2015). Thus, at the implementation level, the aforementioned document emphasizes a review of the student curriculum and retooling educators to improve the ICT capacity of the two parties for the competence of the national workforce.

Human capital development is therefore an issue of national concern as reflected in the implementation strategy of the national development plan that emphasizes increasing the stock of workers with the knowledge and skills required in the contemporary Uganda (NPA, 2015). NPA thus calls for improving the quality of tertiary education through availing avenues of creating, sharing and applying knowledge to produce professionals for all sectors of the

economy. This possibly explains why the national human resource development framework launched in 2018 prioritises securing a competitive workforce especially in the areas of science, technology and innovation highly needed for a knowledge based society (NPA, 2018).

The national goal rests on the fact that Uganda has a young population with 78% of citizens below the age of 30 and 52%, 15 years and below (Uganda Bureau of Statistics, 2014; Walugembe, 2012). This young generation has little interest in agriculture which is the backbone of the country due to the shortage of land for large scale agriculture and the existence of an education system that prepares them for formal employment (Walugembe, 2012). This reality and the looming oil boom with the discoveries in the Albertine region (Effective States and Inclusive Development, 2013) compelled the government to seek new avenues concerning the nation's development. Ultimately, the prevailing reality has set the country on a path to transform into a knowledge-based society first to accommodate the profile of its population. Second to ensure a sustainable utilisation of natural resources by creating a workforce with the knowledge, skills and technology literacy necessary for the country's development needs (MFPED, 2009; NPA, 2015).

This discussion suggests three things; the first is that education especially at the tertiary level is in the spotlight of national goals specific to knowledge led development. The second is that the noted policies point to an almost repetitive focus on human capital development, ICT adaptation and use at the tertiary level and national development and a focus on STI which implies pressure on universities the main source of high skilled labour, knowledge, and innovation in the country (UNCST, 2016). The third is that the policy environment in the country insinuates progress among national targets however, existing data and literature suggests otherwise.

That is, in terms of STI, studies (Bassi & Finkelievich, 2013; Ecuru & Kawooya, 2015; Swarts et al., 2017) note three challenges, the first is that research and innovation is mostly confined in universities which have limited capacity to apply the produced knowledge massively. The second is that the country has 38 researchers per million people relative to the world average of 1200; 13 technicians per million in research and development and an annual investment in R&D below 0.5%, which is below the 1% recommended by the African Union. The third is that the public universities that receive funding from government only dedicate 2% or less to research and innovation annually. In essence, perennial shortfalls from both government and institutions compromise policy directives in STI.

Relatedly are challenges specific to ICT use and application that is; the country has a low ICT development index which points to its low contribution to the growth and development of the economy (Bassi & Finkelievich, 2013; Muvawala, 2015). At the same time, Uganda as a land locked country has no direct access to any submarine capable system which contributes to low access and quality internet (Swarts et al., 2017). In terms of human capital development, there are challenges including the low enrolment in science, technology, engineering and mathematics (STEM) programmes and a high focus on teaching compared to research in universities (Ecuru & Kawooya, 2015). In the same vein, the limited number of competent workers with capacity to offer the economy favourable competition globally compromises national interests (MoES, 2008; NPA, 2015; Brandner & Abbo, 2019).

The existence of challenges in the support structure of the policy directive suggests a gap between policy initiatives and implementation which almost make the knowledge led development agenda in Uganda unrealistic (Bassi & Finkelievich, 2013; Hosman, 2010; Ecuru & Kawooya, 2015; Swarts et al., 2017; Brandner & Abbo, 2019). Yet the five studies further suggest that the existence of challenges against national policy directives represents

double pressure on universities and consequently academic work since the demands rest in their domain. The discussion in chapter five provides further explanation to the views in this subsection.

2.2.4.2 South Africa

South Africa like most countries across Africa embraced the vision of building a knowledge society to benefit favourably in the globalisation process, hence, the target is a stable knowledge driven economy with sounding ICT and physical infrastructure (Holmner, 2011). However, the observation from studies (Paterson, 2002; Cloete, 2014; Jiyane et al., 2013; NPC, 2020a) suggest that South Africa is still in the process of creating a knowledge economy due to the shortfalls in three areas. The first is the widening gap between the rich and the poor, which frustrates inclusive development demonstrative of a knowledge society. The second is the economy being mostly dependent on low skilled labour, mineral extraction and exports. The third is the big gap between passive consumption of technologies and productive use yet overall, the ICT capacity of the nation does not compare well with developed countries even though it is better than that of most African countries Uganda inclusive.

Thus, in line with the national development plan for vision 2030, policies and white papers have emerged mostly in the past decade to address inclusive development with a systemic shift to knowledge led development (NPC; 2011; 2020a). To this end, the two documents note that South Africa has prepared extensively at policy level for the transition upon which this study identified five relevant policies to this effect. The first is the 2008-2018 plan for innovation towards a knowledge based economy targeting economic growth spearheaded by the production and use of knowledge in all socio economic development fields (DST, 2007). In line with the pillars of building a knowledge-based economy including innovation, ICT and education, the aforementioned document highlights four aspects that will drive South Africa to

its development targets. They include human capital development, knowledge generation and exploitation, knowledge infrastructure and the innovation chasm. The end goal is to have an innovation driven economy with capacity to compete favourably globally (DST, 2007).

The second is the 2009 Human Resource Development Strategy 2010-2030 that is targeting enhancing the skills, knowledge and abilities of South Africans to improve productivity in all fields of work in the economy (HRDC, 2009). As a replacement of the 2001 human resource strategy, HRDC notes the plan to curb challenges constraining the current national development agenda. These include poverty, income inequality, threats to social cohesion, demographic inequalities and the impact of globalisation. This possibly explains why the national development plan mandates developing a trained workforce to boost the national capacity to fit the contemporary development trends (NPC, 2011).

The third is the 2016 National Integrated ICT Policy White Paper through which the government views ICT as a means of facilitating inclusive socio-economic transformation of the economy (Department of Telecommunications & Postal Services, 2016). This policy replaced prior white papers and laws on ICT with a target that “by 2030, ICT will underpin the development of a dynamic and connected information society and a vibrant knowledge economy that is more inclusive and prosperous” (DTPS, 2016: 1). Relatedly is the National e-Strategy that targets a digital transformation of the government, human capital development in the field, ICT development and knowledge access for all citizens (DTPS, 2017). However, the DTPS cites challenges including the low e-literacy levels, slow economic growth and innovation. Consequently, the national development plan calls for technology adaptation and use (NPC, 2011).

The fourth is the 2017 Industrial Policy Action Plan focusing on enhancing the productivity of the industrial sector of the economy, hence, it is advocating for a strategic focus on research

and development, innovation and human capital development (Department of Trade & Industry, 2017). The end goal as suggested by the aforementioned study is improving the quality and quantity of goods produced to ease the competition at the global market.

The fifth is the White Paper on Science Technology and Innovation which presents STI as a prerequisite to the transformation of South Africa into a knowledge society (Department of Science & Technology, 2019). The post-apartheid government through the National System of Innovation and the 1996 white paper on STI demonstrated commitment to innovation in the past two decades, however, DST points to a limited number of patents and products to tackle the technological changes required globally. Thus, the STI policy targets human capital development, knowledge expansion, innovation performance and investment frustrated by the limited research and development expenditure given that the latest figure show a 0.83% expenditure which is below the 1% recommended by the African Union (DST, 2019).

This discussion suggests that knowledge generation, human resource development, innovation and ICT are the key policy interests for the transformation of the nation to a knowledge-based society. This mandates the higher education sector to rise to national policy needs given that it is the engine for boosting the workforce, research and innovation capacity of the nation (Council on Higher Education, 2016; 2020). Indeed, the department of higher education and development endorsed two policies that speak to the needs of the knowledge age, the first is the white paper for post school education and training that requires universities to focus more on graduate education, deepening partnership with the industry, and innovation (DHET, 2014). The second is the research output policy that is focusing on boosting research and other knowledge outputs among public universities (DHET, 2015).

NPC (2020a) revealed a positive response of the higher education sector to issues pertaining to research culture, publication and postgraduate output, academic staff capacity and student

graduation rate, however, the document notes a general shortfall to the policy interests of the sector meant to contribute to the national development targets. At the same time, NPC (2020b) notes a digital divide, low capacity and use of ICTs suggesting a shortfall to the national development plan mandate to universities to spearhead the adaptability and use of technologies. Yet in general, the policies targeting the construction of the knowledge society are too broad given that they address issues of growth and development as well (Booyens & Blankley, 2010). Thus, the policy needs, socio-economic constraints and challenges of policy structure and implementation form the foundation unto which universities and consequently academic profession operate in the country. The discussion in chapter five provides further explanation to the views in this subsection.

2.3 Academic Profession

2.3.1 The Concept of Academic Profession

The term academic profession emerged from two concepts, “academe” and “profession” which describe an intellectual career whose scope in meaning has evolved over the years (Williams, 2008). The term academe is traced in the schools of Plato in ancient Athens and the museums founded by Ptolemy I in the third century as well as the subsequent ones formed in Paris and London in 1635 and 1660 respectively (Teichler et al., 2013). The aforementioned study suggests that the main role of the academies was discussing new developments in knowledge, so membership was for independent intellectuals though in the later years most of such individuals identified with a university. It is therefore against this backdrop that intellectuals from academies earned the term academics with the rise of the medieval university (Enders, 2006).

The main role of academics at the foundation of the intellectual career was teaching but with the rise of the modern university in the nineteenth century, a teaching research interest emerged

which professionalized the academic estates (Enders, 2006; Perkin, 2007; Höhle & Teichler, 2013; Arimoto, 2014). The four studies thus suggest that the modern university popularised the practice of research in the career of an academic. The contemporary description of academic work however entails service/community outreach, which emerged with the American universities that realised that it was important for faculty to use their expertise to serve the public (Enders, 2006). Henceforth, teaching, research and community outreach/service tasks define the career of an academic.

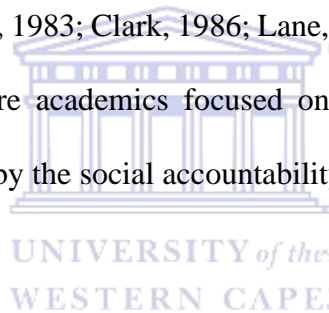
On the other hand, the controversy surrounding the concept “profession” as a contributing term to the phrase “academic profession” renders the scope of the concept complex. This possibly explains why Williams (2008) portrays the term “profession” as a social construct with limited capacity to define academics and their roles in practical terms. At the same time, Teichler et al (2013) note that the specialisation by discipline, the hierarchies and the diversity in practices makes it difficult to describe what the profession and professional is in the academic community. Teichler and associates however settled with the idea that as long as academics make a living through a contract that guarantees money in exchange for work, they belong to a profession. It is upon this background that this study considers the concept academic profession as the work of individuals employed in a university to research and/or teach as well as do community outreach.

2.3.2 Global Trends in the Academic Profession

The academic profession identifies with three waves of development that have shaped human history, the first is the agricultural revolution associated with the twelfth century medieval university that focused on teaching, hence, academics taught to serve the interests of the age (Enders, 2006; Perkin, 2007; Arimoto, 2014). The second is the eighteenth and nineteenth industrial revolution whose influence extended academic work to research beyond teaching in

the modern university (Höhle & Teichler, 2013; Teichler et al., 2013; Arimoto, 2014). The third is the knowledge society associated with the twenty first century future university, which fosters discovery, dissemination and application of knowledge, hence an academic is a creative teacher and researcher accountable to society (Teichler et al., 2013; Arimoto, 2014).

Thus, the contemporary academic profession especially in the developed nations of the west and the emerging Asian economies is under pressure to serve the needs of the knowledge age (Bentley & Kyvik, 2012). This stems from the contrast in trends between the current dilemma and prior regimes of concern of the profession. That is, literature in the 1970s and 80s shows that the academic profession was mostly concerned about the growing emphasis on research mostly at the basic level, bureaucracy and the legitimacy of academic work (Altbach, 1977; Martinotti & Alberto, 1977; Scott, 1983; Clark, 1986; Lane, 1987). The five studies point to an in-ward looking profession where academics focused on meeting the expectations of the academic community threatened by the social accountability predicted to destroy professional etiquette.



The literature in the 1990s depicts a sense of crisis in the academic profession emanating from massification, social accountability, discipline bound academics pressured to diversify and a teaching biased profession pressured to research (Altbach, 1995, 1996; Levine, 1997; Massey, 1997; Enders, 1999). Thus, the five studies suggest an academic profession under pressure upon which academic work was on a trajectory of change. On the other hand, literature from the early 2000s to date depicts an academic environment subject to forces within and beyond the higher education circle including greater social accountability, globalisation, technology, knowledge craze and massification (Altbach, 2003; Stewart, 2007; Bexley et al., 2011; Bentley & Kyvik, 2012; Teichler et al., 2013; Gonzales, Martinez, & Ordu, 2014; Kwiek,

2016). Thus, the eight studies point to an outward looking commitment due to pressure from external forces upon which the academic profession is changing.

This is reflected in the emerging demands meant to serve the needs of contemporary societies, one of which is the production of knowledge relevant to the needs of society (Akker & Spaapen, 2017). The other is the creation of a critical mass of knowledge workers with capacity to create knowledge, increase innovation and manage complex technological changes (Ježić, 2015). Accordingly, the demands of knowledge societies are said to be putting pressure on universities, which is challenging their mandate (Snellman, 2015). Academic research teaching and outreach are therefore suggested as changing given that the academic profession operationalises university mandate (Gopaul, Jones, Weinrib, Metcalfe, Fisher, Gingras & Rubenson, 2016; Höhle & Teichler, 2013; Locke & Bennion, 2013; Teichler et al., 2013). The ensuing subsection discusses further details to this effect.

2.3.2.1 *Academic Research and the Knowledge Society*

Academic research viewed from a methodological point of view points to a purposive inquiry into a specific phenomenon (Williams, 2007). However, Cernat (2011) and Kauppinen (2014) and Klemenčič, Flander, Pečjak and Teichler (2015) suggest an inquiry that involves sharing research results within and outside the academic community, which speaks to the notion of the inclusion of society and its needs in the academic research arena more pronounced in the knowledge age. This idea contrasts the pursuit of research for its own sake and peer groups of scholars establishing its reputation as pursued under the modern university at the inclusion of the activity in the academic profession (Enders, 2006).

That is, studies like (Gibbons, Limoges, Nowotny, Schwartzman, Scott & Trow, 1994; Shinn, 2002; Nowotny, Scott, & Gibbons, 2003; Scott, 2006) describe a model of research termed as mode I characterised by discipline driven science with traditional quality control mechanisms,

highly homogeneous and autonomous that is losing ground to mode II. The five studies speak to the idea that the process of knowledge production is radically changing from the old paradigm of science of discovery hosted in universities to the science of application. Thus, there are three characteristics consistent with the emerging developments, the first is the unity of knowledge characterised by a shift from disciplinary bound research to inter and multidisciplinary teams to make knowledge more responsive to societal concerns (Nowotny et al., 2003; Arnold, 2013).

The second is the validation of research involving supplementing peer review with a multiplicity of quality control mechanisms to address the diversity in contemporary research undertakings (Shinn, 2002; Bresnen & Burrell, 2013; Veit, Lacerda, Camargo, Kipper, & Dresch, 2017). The third is the commercialisation of knowledge especially in the hard sciences which is disorienting academics in the humanities whose research is considered less attractive to the development in science (Cernat, 2011). Consequently, a progressive shift from basic to application-oriented research has emerged, hence contemporary academic research is exhibiting features leaning towards mode II knowledge production (Cernat, 2011; Kauppinen, 2014; Gopaul et al., 2016).

This discussion therefore suggests three practical manifestations of the developments in contemporary science; the first is the quantity of research output defined by the number of publications and PhDs supervised (Cadez, Dimovski, & Zaman, 2017; Ndofirepi, 2017; Sivak & Yudkevich, 2017). For example, the number of journal articles, books, book chapters produced and conferences attended define an academics' career (Brew, Boud, Namgung, Lucas, & Crawford, 2016). At the same time, beyond knowledge production, research outcomes are expected to support and sustain the society, which the aforementioned study suggest as the growing norm in the academic community. In essence, research should reflect

both academic and social worth, which is highly representative of the focus on productivity of contemporary science (Brew et al., 2016).

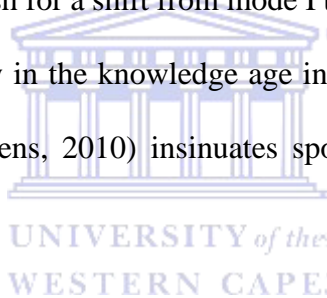
The second is the competition for research funding associated with the growing global dependency on knowledge and its relevance to society upon which market oriented research dominates the intellectual community (Jessop, 2017; Kauppinen, 2012; Park, 2012). The monetary focused attitude may relate to neoliberalism, but the three studies acknowledge that the growing values of knowledge especially among developed nations has intensified the monetary interest among academics. It is upon this background that a price tag on journal articles, books and book chapters as well as other forms of packaged knowledge like consultancy services have become a common trend in the contemporary academic community (Cernat, 2011; Kauppinen, 2014).

The third is research collaboration associated with teamwork across disciplines, institutions and countries as an avenue of improving quality and relevance of academic knowledge (Sooryamoorthy, 2013). Collaboration is further associated with capacity to lighten the research process and bond science between mature and developing higher education systems (Shin, Jeung Lee, & Kim, 2013). However, Shin and his associates identify it mostly with mature higher education systems in developed countries where researchers and institutions have strong networks contrary to those in developing countries. Nevertheless, collaboration characterises many research undertakings in the contemporary academic community upon which Turner, Benessaiah, Warren and Iwaniec (2015) suggest that it is mostly successful in universities with structures to support the process.

Important to note is that though this seems apparent in academic work; heavy criticism exists more so with the claimed shift to mode II given that there is no empirical foundation to affirm the change (Hessels & van Lente, 2008). This claim may hold true to some extent but faces

resistance from the debate on academic capitalism due to the effect of market forces on academic work (Slaughter & Leslie, 2001; Slaughter & Rhoades, 2009; Kauppinen, 2012; Hauge, 2016; Jessop, 2017), yet intensified by the growing value of knowledge in contemporary development (Cernat, 2011; Gibbons, Limoges, & Scott, 2011; Snellman, 2015). Thus, the trends identified in this subsection may hold true in defining trends in contemporary academic work especially in developed countries.

That is, mode II research is mostly associated with developed countries with the technology, human capital and commitment to research and development investment contrary to developing economies specifically Uganda and South Africa with investment less than 1% of GDP to R&D regardless of their difference in stage of development (UNESCO Institute for Statistics, 2019). At the same time, the political push for a shift from mode I to mode II in the two countries due to the need to participate actively in the knowledge age in Uganda (Swarts et al., 2017) and South Africa (Blankley & Booyens, 2010) insinuates spontaneous change which point an assumption requiring exploring.



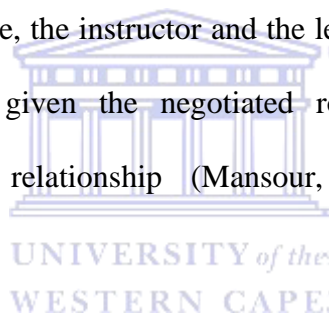
Thus, the study specifically focuses on the uniqueness of the environment in Uganda and South Africa to explore the debate on the changing academic research associated with knowledge societies from the perspective of a rising knowledge society. This gap aids establishing the trajectory of the academic research in MUK and UWC. The discussion in section 2.3.3 provides further details to this effect.

2.3.2.2 *Teaching and the Knowledge Society*

Teaching involves sharing knowledge and experience between a learner and an instructor (Hénard & Roseveare, 2012; Kimoga, 2012). The activity further relates to the dissemination of researched knowledge to learners which points to research based teaching associated with the knowledge age (Kauppinen, 2014). This speaks to the uniqueness of knowledge societies,

which has put the practice of teaching in a flux (Moreno, 2005; Hargreaves, 2005; Mansour, 2016). Consequently, contemporary literature identifies two aspects specific to instruction methods and curriculum as the bearers of the change in the practice of teaching.

Studies like (Moreno, 2005; Hénard & Roseveare, 2012; Mansour, 2016; Iloanya, 2017; Rawn & Fox, 2018) suggest a shift from a teacher dominated to a learner centred teaching and learning model through which a learner's interest and voice is central for a meaningful pedagogical experience. This points to active learning pedagogies that involve integrating instruction with experiential learning (Rawn & Fox, 2018). Therefore, teaching is to a level where faculty have to design techniques that bridge scholarly and the learner's knowledge, which the two studies note as motivating student engagement and stimulating the next generation of scholars. In essence, the instructor and the learner are almost equal partners in the teaching learning process given the negotiated roles and responsibilities in the contemporary teacher learner relationship (Mansour, EL-Deghaidy, Alshamrani, & Aldahmash, 2014).



Relatedly is collaborative teaching, which stems from the idea that in training learners for the knowledge society, creativity and flexibility should guide the choice of class instruction (Alam, 2016). Thus, teaching is no longer an individual but a team sport composed beyond a group of instructors to include students, industry and government (Mansour, 2016). It is against this backdrop that the aforementioned study suggests that external players influence learner instruction targeting graduates fit for purpose in the contemporary labour market.

In light of the above, the curriculum is changing to suit the labour market given the extensive narrative that higher education needs to respond to the challenges of emerging global knowledge societies (Mansour et al., 2014). This idea relates to two strands in literature, the first is mass higher education due to the demand for higher levels of education in the

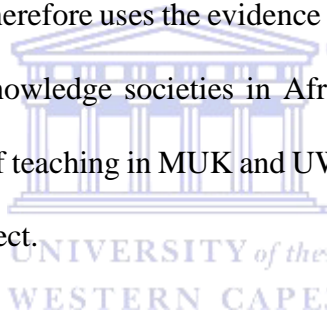
contemporary labour market, which is responsible for the high numbers and diversity of student prompting academics to adjust content and instruction strategies to meet emerging needs (Henard & Leprince-Ringuet, 2008; Hénard & Roseveare, 2012; Altbach, 2017; Yonezawa & Inenaga, 2017). The second strand relates to the rate of technological and social change upon which faculty must look into what, how and why learners are taught (Mansour et al., 2014; Alam, 2016; Mansour, 2016). Thus, effective teaching goes with adjusting to emerging expectations, which the three studies note as involving equipping learners with knowledge and skills that meet requirements of a workforce for the knowledge society.

Therefore, teaching should foster critical thinking, problem solving, entrepreneurialism, adaptability and collaborative learning given that the skills and knowledge acquired by graduates define the profile of any knowledge society (Alam, 2016). In essence, faculty are not just training a workforce but determining the destiny of a nation. Hence, the scale of teaching implies deep knowledge capacity, creativity and ingenuity of faculty which suggests that the quality of the teacher determines the quality of the labour force, which in turn determines the nature of the knowledge society (Beck, 2008).

The noted developments contrast the practice which has proved different given the noted gap between expert and practitioner knowledge in the curriculum (Laurillard, 2002). Laurillard suggests that faculty find it easier to pass on knowledge unto learners compared to imparting skills given that the latter is not a natural part of university curricula. This implies little to no shift from theoretical instruction upon which the trained learners may not fit a knowledge society requiring creativity in the local and global labour market. Thus, studies (Alam, 2016; Hargreaves, 2005; Laurillard, 2002) opine that as long as the curriculum is defined by subject knowledge rather than practical knowledge and skills, faculty are falling short in their role to a knowledge society.

Consequently, faculty have become lifelong learners to keep abreast with new developments in order to prepare learners better for the work environment (Moreno, 2005; Devecioglu & Kurt, 2013; Mansour et al., 2014). The underlying idea suggested by the three studies is that life experiences and professional development keeps academics updated with the variations in career demands. Lifelong learning therefore seems crucial for academics in a knowledge society though (OECD/CERI, 2008) advocates for the preparation of the learners to this effect as well. The argument is that knowledge workers are required to generate creative ideas, theories, knowledge and services throughout their career, thus learners as future knowledge workers need to be prepared for lifelong learning.

This discussion provides evidence of the changing academic activity of teaching due to knowledge societies. This study therefore uses the evidence as a yardstick to explore the debate from the perspective of rising knowledge societies in Africa specific to Uganda and South Africa to establish the trajectory of teaching in MUK and UWC. The discussion in section 2.3.3 provides further details to this effect.



2.3.2.3 *Community Outreach and the Knowledge Society*

The idea of community outreach is a subject of contention, which may account for the disparity in conceptual scope and practice of the activity among universities and academics (Crookes, Else, & Smith, 2015; Kasworm, Aira, & Abdrahim, 2014). The general perception however suggests academics sharing knowledge and expertise beyond the academic community in a rather reciprocal relationship between the university and society (Perkmann, Tartari, McKelvey, Autio, Brostrom, D'Este et al., 2013; Mugabi, 2015; Franz, 2016). In essence, community outreach involves two direct parties, academics and society, which the knowledge age require to lean towards the science of application rather than discovery (Shah & Brennan, 2011; Brackmann, 2015; Bowers, 2017).

This identifies with the ideas of Ernest Boyer and Ernest Lynton who laid the foundation to the scholarship of application that advocated for putting knowledge to practical use to tackle societal concerns (Boyer, 1996; Lynton, 1996). Hence, universities and consequently academic knowledge has for long benefited society, however, the growing influence of external forces on higher education are raising the commitment of the academic community to society (Mugabi, 2015; Piirainen, Andersen, & Andersen, 2016). The overriding idea is the growing need for the social economic relevance of universities, which the two studies suggest that the changing needs of society are setting the trend of the academic activity to this effect.

Consequently, the contemporary operational environment requires universities to engage with society to improve their legitimacy (Piirainen et al., 2016). However, community outreach carries little to no interest for many academics for three reasons, the first is that it infringes on research time, hence many equate it to writing one less paper (McCann, Cramer, & Taylor, 2015). The second is that some institutions do not consider outreach in the promotional criteria, hence academics consider it extra load that poses a threat to the balance of their work (Mamiseishvili, Miller, & Lee, 2016). The third is that some scholars object the very notion of universities bearing any social responsibility, hence community outreach is limited to personal motivation and values (Keynan, 2014; Holland, 2016; Farner, 2019). In essence, the activity lies at the periphery of academic work, which possibly explains why contemporary literature focuses on ideals for universities.

That is, four aspects dominate the narrative to this effect, the first is collaboration, which speaks to the idea that societal concerns are of different types and magnitude, hence, academics need to co-produce knowledge to deal with the diversity of societal concerns (Fitzgerald, Bruns, Sonka, Furco, & Swanson, 2016). Thus, knowledge intended for application should not only cross-disciplinary boundaries but also draw from local knowledge (McNall, Barnes-Najor,

Brown, Doberneck, & Fitzgerald, 2015). This serves as a reminder that academic knowledge serves society best if it evolves from a diversity of individual expertise upon which the aforementioned study suggests that community outreach should take on a team approach.

The second aspect is partnership between the university and the community, which speaks to the idea that there is great knowledge and expertise beyond the walls of the academic community (Fitzgerald et al., 2016). This implies that the community is a potential contributor rather than a passive recipient of academic knowledge. Henceforth, Franz (2016) notes that working with the community enhances the knowledge of academics, discipline and individual citizens. This points to mutual community academic partnership upon which the knowledge age requires fusing scientific and local experience in the production and application of knowledge (Eaton, Wright, Whyte, Stephen, & Gehrke, 2014; Strier & Shechter, 2016).

The third aspect is utilising a civic based curricular given that outreach based activities enhance the knowledge and skills of learners (Matthews, Karls, Doberneck, & Springer, 2015). At the same time, outreach enabled pedagogy introduces students to active citizenship which enhances the teaching and learning experience (Hicks & Radtke, 2015). Indeed, Sherman (2013) established that students found outreach related classes as the most informative, hence academics picked outreach related classes as key avenues of acquiring evidence of student's learning. This implies that community outreach is beneficial to both learners and academics, hence, a salient curricular direction in the contemporary study environment.

The fourth is the fast growing university industry partnership characterised by the transfer of academic knowledge upon which academics demonstrate their worth to national economic development (Perkmann et al., 2013; Eaton et al., 2014; Tijssen, Lamers, & Yegros, 2017). To this end, Brackmann (2015) notes that the declining government financial support of higher education laid the foundation to the engagement of the university with the industry. At the same

time, the growing demand for applicable knowledge in the contemporary private sector is further advancing academic outreach given that it is an avenue of generating institutional funds (Fitzgerald et al., 2016; Keynan, 2014; Tijssen et al., 2017). Thus, the three studies point to the inevitability of adjusting the academic task to suit emerging trends.

The ideals as evidence to the practice of community outreach in the knowledge age serve as a point of reference for this study to explore the debate from the perspective of a rising knowledge society specific to Uganda and South Africa. This study therefore explores the trajectory of community outreach in MUK and UWC. The discussion in section 2.3.3 provides further details to this effect.

2.3.3 Academic Profession in Uganda and South Africa

2.3.3.1 *Uganda*

The academic profession in Uganda is a replica of the colonial and post-colonial developments of the higher education sector given that the pioneer university in the country like most institutions across Africa were set up with the triple mission of research, teaching and service for national benefit (Andoh, 2017). The literature to this effect points to four phases, which may account for the current description of academic work in the country, the first relates to the colonial era specific to the 1920s when Makerere Technical School was established (Bisaso, 2017). Higher education then focused on human resource development for the colonial government, which suggests a concentration on teaching among academics.

The second phase relates to the “development university” in the 1960s and 70s when the universities across Africa were entrusted with human resource development for national development (Badsha & Cloete, 2011; Cloete, Bailey, Pillay, Bunting & Maassen, 2011). This post-colonial period in Uganda rotated on teaching, academic work focused on creating a critical mass of experts to cover the human resource gap left by colonial experts and

administrators (Bisaso, 2017; Ochwa-Echel, 2016). The third phase relates to the onset of neoliberalism in the 1980s following the reduction in funding of higher education in Africa by the World Bank, which led to a market driven university characterised by mass student entry and the general commercialisation of knowledge (Mamdani, 2008; Ochwa-Echel, 2013). This period led to a heightened focus on teaching, which the three studies note to have hampered research though it provided alternative financial survival to universities.

The fourth phase relates to the revitalisation of higher education specific to increasing PhD output, publications, innovations and intellectual capital development as a strategy to address the agenda of constructing knowledge societies in Africa (Molla & Cuthbert, 2018). This discussion suggests a push beyond teaching in the contemporary academic community. Thus, Uganda like most countries across Africa vying for knowledge society status expect academics to contribute towards knowledge production, dissemination and application under the pretext of universities contributing towards national development (Muvawala, 2017). Thus, national expectations suggest that academics must focus on research in traditionally teaching universities, which stems from the fact that the university sector is still the main contributor to knowledge and innovation in the country (UNCST, 2016; Buwule & Mutula, 2017).

The specificity of national expectations lie in the policy needs related to four aspects, the first is ICT adoption and integration for national development (MICT, 2014). The second is knowledge production to foster innovation in the economy (MFPED, 2009; 2012). The third is human resource development to create a human capital base necessary to run an economy in the knowledge age (Muvawala, 2017; NPA, 2018). This co-exists with the reality that most universities in the country have poor infrastructure and mostly focus on teaching than research (MFPED, 2009; Muriisa, 2014; Muriisa & Rwabyoma, 2019). In essence, academics operate

in an environment characterised by high expectations and minimal support, which compromises the academic profession.

It is therefore the nature of the identified issues surrounding the academic profession in Uganda that provide the unique environment of exploring the subject from the perspective a rising knowledge society. This contrasts the debate on the changing academic profession specific to research, teaching and outreach due to the needs of knowledge societies, which provides one of the gaps that this study covers.

2.3.3.2 South Africa

The contemporary academic profession in South Africa is a reflection of the socio political reconstruction of the post-apartheid society given the challenges evoked for the higher education sector in the country (Hugo, 1998; Wolhuter et al., 2010; Wolhuter, 2015). This relates to two aspects, the first is the perception of the university as an instrument of change to aid adaptation to the democratic South Africa (NPC, 2011). The second is the recent elevated pressure to contribute to the knowledge led development agenda given that the higher education sector is still the custodian of knowledge and innovation in the country (Department of Science and Technology, 2017).

The academic profession is therefore key to the higher education agenda in the country given that it is the direct implementer of the university mandate (Ntshoe, Higgs, Higgs, & Wolhuter, 2008; van der Walt et al., 2011). The contemporary academic profession however faces great pressure emanating from challenges the apartheid era shielded it from more especially neoliberalism (Wolhuter, 2015). This possibly explains the rise of issues of performativity and managerialism, which the aforementioned study suggests as putting the academic profession under noteworthy pressure. At the same time, the debate on the policy demands for the construction of a knowledge society suggest elevated pressure for the academic community

due to the increase in demand for knowledge workers and knowledge to foster innovation (Blankley & Booyens, 2010; NPC, 2020a).

Thus, literature in the past two decades reflects commitment to understand the fate of the academic profession with specific emphasis on research, teaching and community outreach through the Carnegie and the Changing Academic Profession surveys (Wolhuter & Higgs, 2006; Wolhuter et al., 2010; van der Walt et al., 2011; Wolhuter, 2015). The three studies show that the comparison with international higher education systems showed among other things challenges in research productivity, teaching challenged by student numbers and the little interest in outreach. This discussion points to a rather problematic trend for an academic profession whose expectations are progressively increasing upon which Wolhuter (2015) suggested an investigation of contemporary trends.

Relatedly, the academic profession in South Africa is associated with a rather teaching focused environment where a number of academics are professional teachers rather than researchers (van der Walt et al., 2011). At the same time, the rising student numbers against the aging white professoriate pose a challenge to the academic profession despite the relatively well qualified and expanding academic community (Wolhuter, et al., 2016). This discussion therefore points to a unique environment upon which this study explores the academic profession to establish the trajectory amidst emerging needs and expectations.

2.4 Conclusion

The chapter addressed the background to the focus area of the study, the academic profession and the rising knowledge societies specific to Uganda and South Africa. The literature revealed an almost repetitive expectation for knowledge expansion, innovation, human capital development and the adaption and use of ICT in education and development in the quest of constructing a knowledge society in the two countries. Such emerging policy needs co-exist

with challenges specific to the gap between policy targets and implementation at national level, which affect universities and consequently the academic profession. However, the literature has little to no specific focus on the effect on academic research, teaching and outreach through which progress towards the policy needs manifests. Thus, the study covers this gap by exploring two aspects; the first is the extent to which the academic profession is responding to the policy needs. The second is the status of the academic profession specific to research, teaching and outreach.

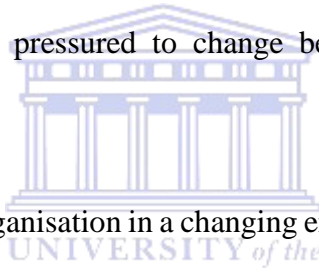
The literature review further showed evidence of the changing academic research, teaching and outreach due to the emerging needs of knowledge societies. The academic profession in Africa may be comparable to the identified developments but the context, conditions and expectation unique to either Uganda or South Africa provide an extra layer upon which this study explores the debate from the perspective of a rising knowledge society. The identified gap therefore aid exploring the trajectory of the academic profession specific to academic research, teaching and community outreach in MUK and UWC. The aggregate of the identified gaps therefore contribute to establishing if the academic profession is changing in response to the policy needs of RKS. The neo institutional theory examines the issue to this effect.

Chapter Three

Theoretical Framework

3.1 Introduction

Neo institutionalism is the theoretical framework used in this study to explore if the academic profession in MUK and UWC is changing in response to the policy needs of the rising knowledge society in Uganda and South Africa. The central theme of the theory depicts environmental pressure as the force upon which change occurs in organisational practice given that organisations like universities tend to get deeply embedded in their social and political environment to a point that their practices reflect rules, beliefs and conventions built in the wider environment (Meyer & Rowan, 1977; DiMaggio & Powell, 1983; Powell & DiMaggio, 1991). Consequently, the contemporary higher education landscape is characterised by universities that continually feel pressured to change because the world around them is changing (Papadimitriou, 2011).



The idea of the university as an organisation in a changing environment is often associated with a number of theories three of which relate to this study. The first is the open systems theory which presents organisations as open systems that exist in a close relationship with their environment (Katz & Kahn, 1978; Scott, 1981; Morgan, 1998). The open systems theory emphasizes three ideas; the first is that the survival of an organisation depends on its relationship with the environment, hence, the two entities must interact appropriately (Morgan, 1998). The second is that organisations are not just open to but also dependent on resources beyond their system, hence, they exist in a rather symbiotic relationship with the environment (Scott, 2003). The third is that there is a close connection between the conditions of the environment and the characteristics of a system within it (Scott, 2003), which suggests that the environment has capacity to influence operations of an organisation.

Thus, the open systems theory just like neo institutionalism recognise the role of the environment in creating the pressure upon which the contemporary university may change as a survival mechanism (Papadimitriou, 2011). The open systems theory however simply provides a rather general assumption that universities spontaneously change in response to the environment. Neo institutionalism takes the idea further by providing the specific path of change emerging from environmental pressure increasing organisational homogeneity in the process of securing legitimacy (DiMaggio & Powell, 1983).

The second is the resource dependence theory which argues that the survival of an organisation depends on the extent to which it can effectively acquire and maintain resources (Pfeffer & Salancik, 1978; Oliver, 1991; Gornitzka, 1999). There are two assumptions Pfeffer and Salancik (1978) identified with the theory, the first is that the resource environment limits organisational choice and action. The second is that organisations must respond to the demands in the environment if they are to survive, hence, a change in the environment implies a change of organisational activities and the alternative a reduction of survival prospects. Thus, both the neo institutional and resource dependence theories recognise that external pressure drives organisations to secure legitimacy (Oliver, 1991; Scott, 1995). However, while the resource dependence theory accounts for only conformity in explaining an organisational quest for legitimacy, neo institutionalism goes a step further and provides three explanatory forces specific to conformity, habit and convention (Oliver, 1991). Arguably, neo institutionalism provides extensive avenues of understanding the university and consequently its internal operations as it seeks to survive in a changing working environment (Papadimitriou, 2011).

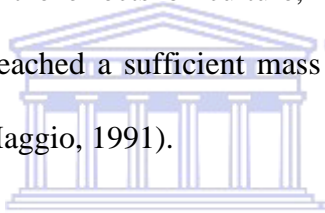
The third is old institutionalism unto which neo institutionalism builds though the difference between the two is quite significant (Powell & Dimaggio, 1991; Greenwood & Hining, 1996). That is, the two studies point to the continuity from old institutionalism specific to the

relationship between the organisation and the environment and the role of culture in shaping organisational reality that has not prevented three areas of divergence in the two perspectives. The first covers the conceptualisation of the environment where the old institutionalism describes organisations as embedded in local communities yet the new institutionalism focuses on non-local environments specific to industries, professions and national societies. The second covers the aspect of institution where the old version regards organisations as both the units institutionalised and the loci of the process. Neo institutionalism on the other hand views the institutionalisation as occurring at societal level and consequently inter organisational in locus. The third entails emphasis of the old institutionalism on character, which describes a high degree of symbolic and functional consistency within each institution. Neo institutionalism on the other hand emphasizes homogeneity of organisations and stability of institutionalised elements through which the path of organisational change is set. Neo institutionalism therefore offers an understanding of the mechanisms that explain organisational change in a ‘societal’ environment (DiMaggio & Powell, 1983; Powell & Dimaggio, 1991; Greenwood & Hinings, 1996; Greenwood, Suddaby, & Hinings, 2002), the key focus of this study. Overall, the open systems theory, resource dependency theory and old institutionalism could be important in understanding the implications of the relationship between organisations and their environment. However, neo institutionalism takes an upper hand for this study because it covers contributing elements from the three frameworks.

This chapter therefore focuses on discussing the key tenets of neo institutionalism, which aid the understanding of the fate of the academic profession in a changing context of operation. It covers the origins of neo institutionalism and the core elements of the theory specific to institution, legitimacy and isomorphism. The proceeding sub sections cover neo institutional change and the conclusion.

3.2 Origins of Neo institutionalism

Neo institutionalism emerged from the 1977 seminal work of Meyer on “The effects of education as an institution” and Meyer and Rowan on “Institutionalised organisations: formal structure as myth and ceremony” (Powell & Dimaggio, 1991; Lawrence & Suddaby, 2006; Meyer, 2008). The theory advanced the social constructivist idea that there are three levels at which organisational activities are institutionalised, inter organisational, organisational and the individual, which attributes institutionalised activities to norms, habit and conformity (Berger & Luckman, 1967; Oliver, 1997). This idea was replicated in organisational institutions, hence, by the early 1980s, literature of interest articulated institutional principles in the context of formal organisations (Powell & Dimaggio, 1991; Meyer & Rowan, 2006). By 1985, the number of scholars intrigued by the effects of culture, ritual, ceremony and higher level structures on organisations had reached a sufficient mass for neo institutional theory to be named and reified (Powell & DiMaggio, 1991).



Thus, neo institutionalism has a sociological leaning, which focuses on the ways in which action is structured and order made possible by a shared system of rules that both constrain the inclination and capacity of actors to optimise as well as privilege some groups whose interests are secured by prevailing rewards and sanctions (Powell & DiMaggio, 1991). This possibly explains why the institutional focus is on conformity, the idea therefore is to have a common understanding about what is appropriate and fundamentally meaningful behaviour (Scott, 1987). It is against this backdrop that organisations end up aligning with practices and procedures institutionalised in society (Meyer, 1977; Meyer & Rowan, 1977; Papadimitriou, 2011). The three studies further suggest that organisations that conform increase their survival prospects contrary to those that do not.

Neo institutionalism therefore argues that organisations like MUK and UWC operate in an environment dominated by rules, requirements, understanding and taken for granted assumptions of what constitutes appropriate or acceptable organisational forms and behavior (Scott, 1987; Oliver, 1997). Consequently, the pressure from the institutional environment like that associated with the policy needs for the rising knowledge societies in Uganda and South Africa forces organisations like the two universities to become similar to institution within their environment to survive (DiMaggio & Powell, 1983; Scott, 1987; Powell & DiMaggio, 1991). Thus, the social environment is viewed as affecting the behavior, practices and ideas of actors like academics in organisations (Meyer, 2008), which Papadimitriou (2011) likens to the pressure contemporary universities are subjected to in the knowledge age. The assumption therefore is that academic work in the two universities is vulnerable to environmental forces.

The core elements of neo institutionalism including institution, survival/legitimacy and isomorphism provide further details to this effect in the ensuing subsection

3.3 Core Elements of Neo institutionalism

3.3.1 Institution

The concept institution takes on various descriptions, which point to outlines, norms and human devised regulations that allow or constrain the behaviour of social actors and make social life predictable and significant (Dimaggio, 1991; Scott, 1995; Powell & Colyvas, 2008). While Björck (2004) limits institution to rather taken for granted formal or informal rules that control behaviour at a social level. North (1990) extends the scope of influence beyond the social to political and economic interactions. Nevertheless, the ultimate goal of institution is to guide and shape behaviour of actors that accrue to a society or environment.

Meyer and Rowan (1977) suggest that institutions take on two forms; the first are social processes, obligations or actualities that take on the rule like status in social thought and action.

The second are products, services, techniques, policies and programmes that function as powerful myths and many organisations adopt them ceremonially. Henceforth, the element of institution suggests convergence around prescribed rules which lead to rewards for those that comply and sanctions for default (North, 1990; Greenwood et al., 2002). Consequently, the idea that organisations must follow specific rules is a common practice given that rules contributively define relationships between roles and expectations in the organisation (North, 1990). Neo institutionalism therefore suggests that institutions are the rules of the game given that they exercise high control over structure and operation in organisations (Scott, 1995).

Institutions entail three pillars, which together provide stability and meaning to social life (Scott, 1995; Hoffman, 1999; Powell, 2007). The first is the regulatory pillar, which focuses on the capacity to establish rules, inspect the conformity of others to the very rules and if necessary, manipulate, sanction, reward or punish in an attempt to influence future behaviour. The second is the normative pillar, which focuses on values and norms with the former emphasizing desirable behaviour and the latter legitimate means of pursuing valued ends. The third is the cultural cognitive pillar, which emphasizes paying attention to taken for granted aspects like routines that influence behaviour of actors.

The cognitive perspective of the pillar emphasizes the relationship between an organism and its environment, to which (Scott, 1995:228) notes that “what a creature does is in large part a function of the creature’s internal representation of its environment”. This implies that an action is social only to the extent that the actor attaches meaning to the behaviour, therefore, to understand or explain any action, one must take into account not only objective conditions but also the actor’s subjective interpretation of them (Scott, 1995). The cultural dimension further emphasizes objective and subjective beliefs unique to each individual, hence, the cultural

cognitive pillar points to the importance of individual actors in the institutionalisation process given that they transmit what is socially defined as real (Scott, 1995).

Ultimately, institutions denote a combination of enforced, standard and routine guidelines that influence actions of actors in organisations upon which this study chooses academics to provide understanding of the trends in the university mandate that they operationalise (Hughes & Hughes, 2013; Mugabi, 2015). This further relates to the idea that “formal structure of many organisations in the post-industrial society dramatically reflect myths in their institutional environment instead of the demands of their work” (Meyer and Rowan, 1977: 4). Thus, the academic profession subject to the needs of the policy environment is likely to conform to the emerging pressure given that responding to the rules and norms of society ensures legitimacy for contemporary higher education institutions (Diogo, Amaral & Carvalho, 2015; Mugabi, 2015; Hladchenko, 2016). The ensuing subsection discusses the notion of legitimacy in details.

3.3.2 Legitimacy

Legitimacy refers to a generalised perception that the actions of an entity are desirable and proper within some socially constructed system of norms, values, beliefs and definitions (Hughes & Hughes, 2013). The rise of neo institutionalism therefore marked the extension of the argument on why and how organisations attempt to conform to their institutional environment not for efficiency but social legitimacy (DiMaggio & Powell, 1983). The answer lies in the idea that organisations need social acceptability and credibility to survive. Hence, neo institutionalism presents universities as organisations that can only survive by incorporating socially rationalised elements in their formal structures (Meyer & Rowan, 1977; DiMaggio & Powell, 1983; Oliver, 1991; Suddaby & Greenwood, 2005). This possibly explains why contemporary institutions operate with policies, programs and procedures enforced by public opinion (Meyer & Rowan, 1977). This therefore means that the higher the

degree of legitimacy required, the higher the likelihood that an organisation will conform to environmental pressure (Oliver, 1991).

Legitimation therefore accounts for institutional order given that the legitimacy of an organisation is subject to the number and diversity of authorities over it (Scott, 1995). It is against this background that the aforementioned study makes three observations about organisations. The first is that they must conform to regulative requirements by abiding with set laws and regulations. The second is that they must conform to normative controls by adhering to professional standards. The third is that they must conform to the cultural cognitive controls specific to constitutive rules that embrace taken for granted things. This implies that the survival of an organisation rests almost entirely in organising along socially prescribed lines.

Legitimacy is therefore socially constructed given that “it reflects congruence between the behaviour of the legitimated entity and the shared beliefs of some group” (Suchman, 1995: 6). Thus, it is possessed objectively and created subjectively.

In light of the above, global trends show that universities like MUK and UWC are undergoing reform in order to meet the demands of the contemporary society (Gonzales & Terosky, 2016; Khvatova & Dushina, 2017; Musselin, 2013). Consequently, universities are embracing practices considered appropriate and legitimate by peers at the institutional and individual levels (Fleming, 2010). This possibly explains why Gonzales and Terosky (2016) note that the quest for professional legitimacy more so in research has become a common trend among faculty. Overall, the practices of research, teaching and outreach are yielding to pressure from the institutional environment as the university vies for legitimacy (Hughes & Hughes, 2013; Khvatova & Dushina, 2017).

Arguably, neo institutionalism endorses the idea that universities improve their odds of survival by conforming to commonly laid out expectations of what a successful organisation should be (DiMaggio & Powell, 1983; Suchman, 1995; Suddaby, Seidl & Ke, 2013). Securing legitimacy therefore involves recognising and reacting upon emerging changes which entails incorporating structural elements isomorphic with the institutional environment into organisational order (Meyer & Rowan, 1977; Suchman, 1995). Isomorphism therefore offers practical understanding of the implications of the institutional environment on an organisation as further discussed in the ensuing subsection.

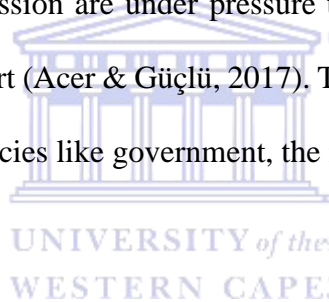
3.3.3 Isomorphism

Isomorphism refers to a constraining process that forces one unit in a population to resemble other units that face the same set of environmental conditions which raises the question of why and how organisations tend to become isomorphic as they attempt to attain legitimacy (DiMaggio & Powell, 1983). Studies like Meyer and Rowan (1977) and DiMaggio and Powell (1983) identified two types of isomorphism. The first is, competitive isomorphism which points to a system of rationality that emphasizes market competition, niche change and fitness measures. The second is institutional isomorphism, which focuses on the success and survival of organisations. This study focuses on the later because “institutional isomorphism is a useful tool for understanding the politics and ceremony that pervade much of modern organisational life” (DiMaggio & Powell, 1983: 55).

Under the pretext of understanding why homogeneity is a contributing factor for organisational change, DiMaggio and Powell (1983) identified institutional isomorphic change as occurring through the coercive, mimetic and normative mechanisms. Coercive isomorphism stems from political influence and the problem of legitimacy. It is specifically associated with “formal and informal pressure exerted on organisations by other organisations, which they are dependent”

(DiMaggio & Powell, 1983: 55). This is because some organisational field have environmental agents powerful enough to impose structural forms and practices on subordinate organisations (Scott, 1987). An organisational field describes a community of organisations that partake of a distinct set of institution with their actors interacting more frequently and fatefully than with those outside the field (Hoffman, 1999; Phillips, Lawrence, & Hardy, 2004). The two studies further suggest that the field includes major resource providers like government and regulatory oversight agencies.

Thus, public organisations like the two universities under study are likely to adopt government policy like that associated with the needs of the knowledge society agenda in the two countries and reject those that are prohibited (Zucker, 1987). This explains why universities and consequently the academic profession are under pressure to meet state demands in order to secure resources and social support (Acer & Güçlü, 2017). The assumption therefore is that the more universities depend on agencies like government, the more similar their focus will be on national demands.



Mimetic isomorphism stems from standard response to uncertainty, which encourages imitation, thus, if uncertainty exists in the environment, organisations model themselves or other organisations (DiMaggio & Powell, 1983). Well as organisations may take a deliberate move to benchmark organisations more legitimate than them, sometimes the modeling is implicit due to taken for granted practice and action (Powell & DiMaggio, 1991). Nevertheless, the approach speaks to the homogeneity in major university systems across the globe as institutions respond to external pressure and government policy changes (Croucher & Woelert, 2016). Relatedly, Altbach (2010) observed that the international knowledge system has created an environment in which participating academics and universities from the global south look unto the global north for validation. This further speaks to mimetic forces upon which

academics enhance prestige and reputation at individual and institutional level (Joo, Larkin, & Walker, 2017). The assumption therefore is that the greater the uncertainty in the working environment, the greater the extent to which the university and its academics will mimic individuals and/or institutions perceived legitimate. Academics in MUK and UWC are no exception.

Normative isomorphism stems from professionalization, which is a “collective struggle of members of an occupation to define the conditions and methods of their work and establish a cognitive base and legitimation for their occupational autonomy” (DiMaggio & Powell, 1983: 58). Professionals like academics across universities are usually guided by the same principles, norms and values that tend to override variations in organisational control that would otherwise shape the behavior of actors differently (DiMaggio & Powell, 1983; Scott, 1995; Greenwood et al., 2002; Muzio, Brock, & Suddaby, 2013). Thus, elite control influences the academic profession given that academics follows standardised knowledge, procedure and values (Hughes & Hughes, 2013). The assumption therefore is that the more the academics in MUK and UWC rely on professional etiquette, the more similar academic work will be across institutions and nations.

This discussion suggests that the response to the pressure from authority bearers like government and other resource controllers, formal and informal benchmarking and elite control shape practice among actors. Thus, as coercive, mimetic and normative forces draw organisations towards homogeneity, the behaviour and consequently the actions of actors like academics in the two universities change (DiMaggio & Powell, 1983; Tolbert & Zucker, 1983; Hoffman, 1999). The ensuing subsection discusses further the identified path of change in respect to the academic profession and a rising knowledge society.

3.4 Neo Institutional Change

Institutionalised environments like the policy environment in Uganda and South Africa pressure organisations like MUK and UWC to become similar to other institutions as they adjust in quest for legitimacy (Meyer & Rowan, 1977; Zucker, 1987). This study therefore dwells on the capacity of isomorphic forces to explain the process of organisational homogeneity as a pathway to organisational change. This is specific to the isomorphic role of incorporating external elements into organisational structure through which actions of actors are modified towards organisational compatibility with the environment (DiMaggio & Powell, 1983; Powell & DiMaggio, 1991). The idea therefore is that the approach of academics to their work specific to research, teaching and community outreach may reflect rules and structures built in the wider environment (Powell & DiMaggio, 1991).

Academics are either directly or indirectly influenced by society given that actors and their interests are institutionally constructed (Powell & DiMaggio, 1991). The response of the actors therefore rests on two reasons, the first is that regulations are backed by incentives and sanctions (Scott, 1995). The second is that individuals sometimes prefer routine and predictable environments which sustain institutions leading to homogeneity (Dimaggio, 1988). This points to coercive, mimetic and normative pressure, which academics under study predictively face in their work. However, studies (DiMaggio, 1988; Barley & Tolbert, 1997; Meyer, 2008) note that actors sometimes step out of actor hood and demonstrate agency, though it is still collectively legitimated. Nevertheless, individual actors contribute towards change in an organisation more so in universities where most power rests at the bottom in the hands of professionals with high control over their work, hence, bottom up change happens despite the rigidity in higher education (Papadimitriou, 2011).

Organisational change takes two forms; the radical that involves a shift from an existing orientation and the incremental that occurs slowly and gradually that observers and participants are hardly aware of the change (DiMaggio & Powell, 1983; Tolbert & Zucker, 1983; Greenwood & Hinings, 1996). This study focuses on the later because most changes in organisations emerge from a gradual interaction with the institutional environment (DiMaggio & Powell, 1983). Barley and Tolbert (1997) further note two things; the first is that the rate of response to external pressure varies across organisations, hence while some may change quickly, others may take long. The second is that if wide spread change is to occur, a relatively large number of actors must alter their behaviour in similar ways. In essence, the timeframe and quantity of actors are important in exploring organisational change, which the study put into consideration.

Neo institutionalism appears in a number of studies that focused on various research areas in higher education. For example, Croucher and Woelert (2016) shows that isomorphic change can play an important role in understanding a unified national system of higher education. Fay and Zavattaro (2016) demonstrated that isomorphic pressure influences branding in higher education. Hughes and Hughes (2013) show that the theory can aid the understanding of professionalism and professional institutions in times of change. Yet Papadimitriou (2011) a study on quality in Greek higher education shows that neo institutionalism aids the understanding of the university in the changing higher education landscape. The variation in the cited studies found commonality in the quest for understanding the implications of a relationship of an entity with its environment. It is therefore against this backdrop that this study uses neo institutionalism to explore the fate of the academic profession against the policy needs of a rising knowledge society.

3.5 Criticisms of Neo Institutionalism

The criticisms of neo institutionalism question the relevance of some concepts, the entity of ‘an organisation’ and the role of actors in practice. Therefore, this section addresses three concerns, which neo institutionalist scholars identified and addressed especially in the most recent literature. The first questions the importance of myth and ceremony in the institutionalisation process as endorsed by John Meyer and his students given that it does not address how the models arise and whose interests they serve (DiMaggio & Powell, 1983). At the same time, the aforementioned study notes that the contended idea is difficult to mesh with organisation realities due to the difference in efficiency and productivity of organisations. However, studies (Scott, 1995; Suchman, 1995; Phillips et al., 2004; Suddaby & Greenwood, 2005) identified the solution as rooted in understanding the foundation of legitimised models and organisational fields, which the study takes into consideration.

The second concern relates to the neo institutional perception of an organisation as a passive entity given that issues of behavior and influence do not seem thoroughly addressed in the institutionalisation process (DiMaggio, 1988). However, the work of Oliver (1991) on “strategic responses to institutional processes” addresses the issue in two ways. In the first instance, she shows that the neo institutional framework through legitimacy is capable of handling responses from the institutional environment even beyond other organisational theories like the resource dependence theory. In the second instance, she specifically notes that the rate of response to constraints in the institutional environment varies across organisations, hence, organisations are actually active participants in the course of their fate.

The third concern relates to the role of actors, which specifically addresses the issue of agency an idea under developed in neo institutionalism (DiMaggio, 1988). The question therefore lies in why some organisations conform to pressure from the institutional environment and others

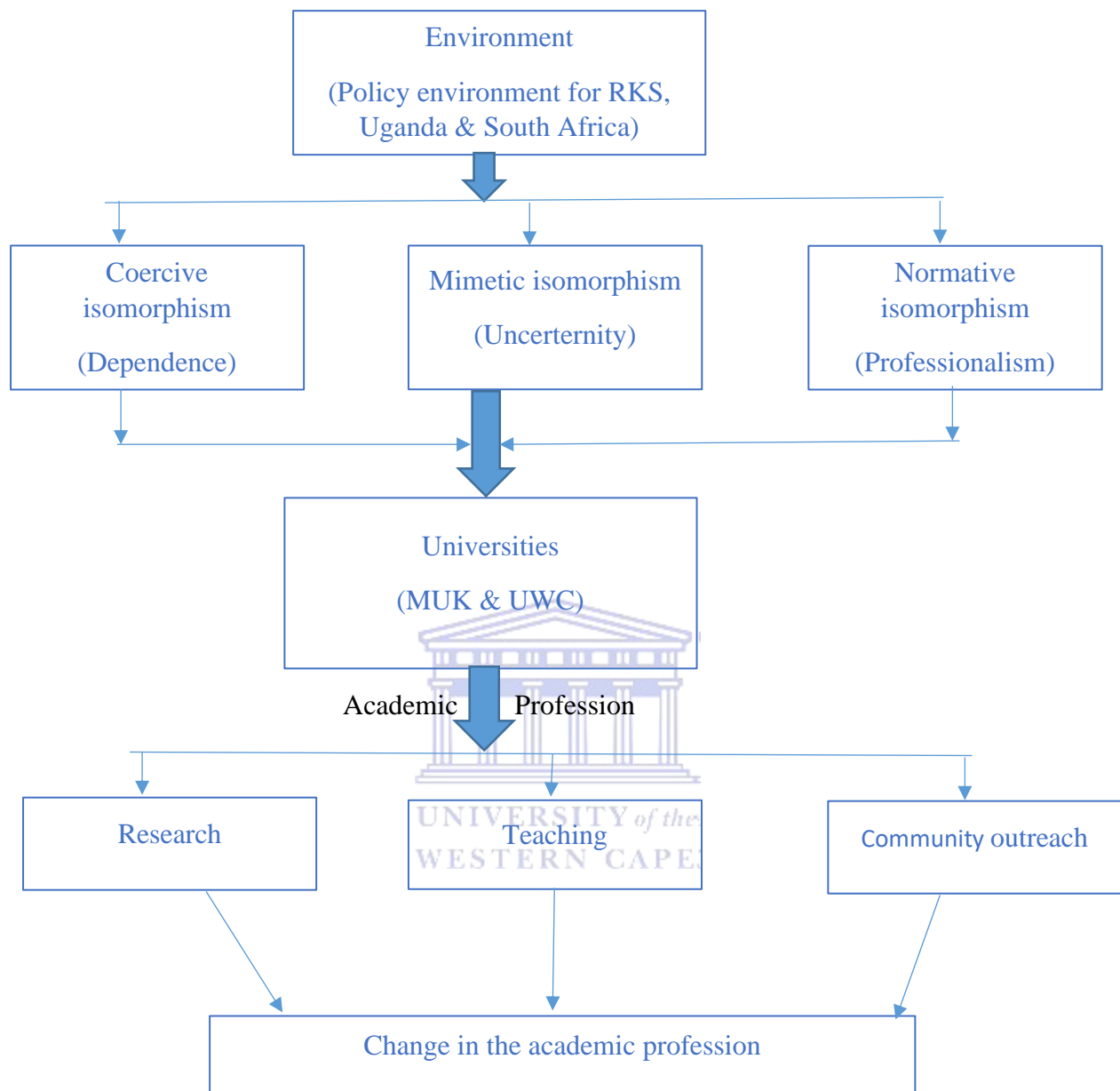
do not, which Zucker (1987) attributes to legitimacy, internal goals and values but does not identify the actor's role to that effect. However, portraying the actors as compliant responders to the institutional environment may not be practical given that Scott (2008) notes that sometimes there is outright defiance at organisational and consequently actor level.

3.6 Conclusion

This chapter discussed the theoretical framework of the study specific to neo institutionalism. The central theme of this framework is that organisations operate in an environment dominated by rules, requirements, understanding, assumptions, beliefs and procedure about what constitutes appropriate or acceptable organisational forms and behaviour. Thus, organisations end up responding to the institutional environment to secure legitimacy for an increase in resources and survival prospects. This leads to isomorphic tendencies upon which coercive, mimetic and normative forces not only contribute towards homogeneity but also modify the behaviour of actors leading to change in actions and aggregately, organisational change.

Neo institutionalism therefore provides insights and suggestions that point to MUK and UWC as organisations subject to the policy needs of the rising knowledge society in Uganda and South Africa as their context of operation. Consequently, the pressure from the environment affects academics and consequently the academic profession through which university mandate is exercised. Therefore, the assumption is that academic research, teaching and community outreach are changing in response to the policy needs of the institutional environment. Figure 3.1 provides a schematic representation of this discussion.

Figure 3.1: Schematic Representation of Neo institutionalism in the Study



Source: Adapted from DiMaggio and Powell (1983)

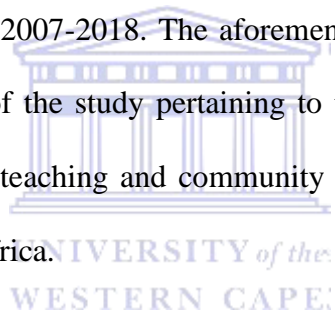
Neo institutionalism is therefore an appropriate framework for this study because it provides an understanding of the path of change salient for the study question. This is specific to the provided proxies for counting and exploring the meaning behind the dynamics of change in an organisation (Suddaby, 2010). The mixed methods methodology explored in the ensuing chapter is thus congruent with the tenets of neo institutionalism.

Chapter Four

Methodology

4.1 Introduction

This chapter entails the research methodology of the study. It presents the journey from data collection in terms of procedures that informed field work, the presentation, and the analysis of data. Thus, it covers the research design, data collection, sampling, validity and reliability, data analysis procedures, reflexivity, and ethics. In line with neo institutionalism that guided this study, a cross national mixed methods methodology through survey, document review and semi-structured interviews is used to establish if the academic profession in MUK and UWC is changing in response to the policy needs of the rising knowledge society in Uganda and South Africa in the past decade, 2007-2018. The aforementioned research journey therefore seeks to address the objectives of the study pertaining to the levels of response, status and trajectory of academic research, teaching and community outreach in the rising knowledge societies of Uganda and South Africa.



4.2 Research Methodology

The epistemological standpoint is salient to every research undertaking given that it informs the choice of research intentions, design, method and sampling (Grix, 2004; Hesse-Biber & Leavy, 2011). Therefore, the way one views the construction of social reality and knowledge impacts on the way knowledge from the phenomena under study is uncovered and evaluated (Mack, 2010). In this regard, neo institutionalism is coupled with the mixed methods approach for this study because they both endorse prulalistic techniques of identifying processes, understanding the sources of dynamics of the processes and their outcomes in establishing organisation change (Suddaby & Greenwood, 2009; Suddaby, 2015). This is exhibited in a social world manned by actors, that is, individuals or groups of individuals interpret the

situation they face, assign meaning to action and in the process create a social stock of knowledge upon which objective and subjective meaning is constituted (Meyer, 2008; Suddaby, 2010).

Important to note is that “the neo institutional theory is not closely tied to broader philosophical concerns but has rather developed a set of sociological explanatory ideas which attest to highly qualitative research” (Meyer, 2007: 798). This possibly explains why there is a growing condemnation of focusing on shifts in observable outcomes in determining institutional change, hence focus is on understanding the ways in which institutional pressures are perceived by actors that experience them to determine change both at a macro and micro level (Suddaby, 2010; 2015). However, the two studies further advocate for a nuanced understanding of institutional change. Thus, Meyer (2008) and Suddaby and Greenwood (2009) suggest a balanced research reflecting at least two of the four major epistemological categories of institutional research. That is, interpretive, historical, and dialectical that endorse qualitative methods and the multivariate that endorses quantitative methods. Therefore, the neo institutional perspective suggested the use of mixed methods design in this study. It further guided the collection, analysis and interpretation of data in the study.

The neo institutional perspective presents quantitative methods of investigating change as focusing on outcomes of institutional pressure (Suddaby & Greenwood, 2009; Delbridge & Edwards, 2013). Therefore, the two studies identified observable and countable elements like attending to frequency of appearance as avenues of determining institutional change. Consequently, a survey through a self administered questionnaire was used to collect data for this study. At the same time, the theoretical perspective presents qualitative methods as focusing on institutional pressure and how it is subjectively perceived by actors (Suddaby & Greenwood, 2009; Suddaby, 2010). Thus, document review and semi structured interviews

were used to understand the context in which academics work and their perceptions about the profession respectively. Academics as actors link institution to action, hence have conferred agency based on exposure to the institutional context (Meyer, 2007), therefore, academics provided the data for this study based on their lived experience. The ensuing subsection provides further understanding of the research design of this study.

4.3 Research Design of the Study

The research design associates with the entire process of a research right from the formulation of the research questions, to the methods of data collection, the analysis and interpretation of data as well as report writing (Babbie, 2008; Babbie & Mouton, 2007; Lodico, Spaulding & Voegtle, 2010; Creswell, 2014). Therefore, it is by the nature of the research problem that a researcher determines the research design for a study (Creswell, 2014). Given that the study intended to establish if the academic profession in MUK and UWC is changing in response to the rising knowledge society in Uganda and South Africa, a cross national concurrent mixed methods design was selected for this study.



The mixed methods element was chosen for the study to extract the strength and diminishes the weaknesses of the qualitative and quantitative data collection methods used in the study for a nuanced understanding of the research problem (Johnson & Onwuegbuzie, 2004; Dellinger & Leech, 2007; Johnson, Onwuegbuzie, & Turner, 2007; Onwuegbuzie, Gerber & Abrams, 2017). In this study, data were collected concurrently through survey, document review and semi structured interviews, analysed separately and results integrated. The combination of methodologies triangulated results, which boosted the credibility of the study findings (Creswell, 2014).

The research design of this study further constitutes a comparative cross-national element. DiMaggio and Powell (1983: 68) note, “there is much to be gained by attending to similarity

as well as variation among organisations and in particular to change”. Yet Zucker (1987) and Greenwood and Hinings (1996) specifically endorse comparative case studies based on populations of organisations subject to similar institutional pressure and explored in real time. Hence, neo institutionalism suggested the comparative cross-national focus for this study. Hantrais and Mangen (1996: 1-2) explain that:

A study can be said to be cross national and comparative if one or more units in two or more societies, cultures or countries are compared in respect of the same concepts and concerning the systematic analysis of phenomena usually with the intention of explaining them.....the intention is for the research to gather data about the object of the study with in different contexts and by making comparison gain a greater awareness and a deeper understanding of social reality.

Thus, this study examines academic research, teaching and community outreach in two universities located in different countries, that is, MUK in Uganda and UWC in South Africa. Important to note though is that the unit of analysis for this study are academics of the two universities, the two nations simply provide context to the two universities in which academics operate.

Context is a salient part of a cross-national study because it aids understanding of conditions that shape the phenomena under study (Hantrais, 1999; Brannen & Nilsen, 2011). This study therefore considered three analytical levels, the first is the national level relating to the policy context under which the two universities and consequently the academic profession operate. The second is the institutional level relating to the trends in academic work through the strategic plans and the annual reports of the two universities 2007 through 2018. The third is the individual level relating to the experiences of academics in MUK and UWC. This was done with the aim of identifying and providing explanation to the similarities and/or difference

across the two cases (Hantrais, 1999) in research, teaching and community outreach. The comparison of cases is premised on the idea that social phenomena in like settings may parallel each other sufficiently to permit comparison and contrast (Bradshaw & Wallace, 1991; Ragin, 1997; De Vaus, 2008). The two universities were thus purposively selected for this study on the principle of similarity and difference (Brannen & Nilsen, 2011) as further discussed in the ensuing sub section.

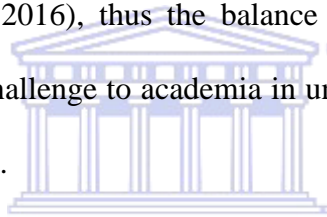
4.4 Rationale for the Selection of MUK and UWC

The justification for the selection of the two universities rests on three practical aspects including the nature of the two universities, university rankings and the feasibility of the study. In terms of the nature of the two universities, there are three important aspects to note, the background, the policy context and their public status. Makerere University is the oldest university in Uganda set up in 1922 to serve British East Africa, the institution remained the only university in the country until 1988 when the first private university was established making it the emblem of higher education in the country (Ochwa-Echel, 2016; Bisaso, 2017). At the turn of the century when it became evident that the construction of knowledge societies would depend largely on tertiary education, the University was at the centre of the debate with expectations to take a lead in research and development outputs (Nakayiwa, 2016).

Consequently, Makerere University has the highest student and staff population in the country with a record 39546 students and 1632 academic staff (National Council for Higher Education, 2019). However, the high student population against expectations in research and knowledge production is a constraint to faculty given the colonial legacy of the University which prepared it for majorly teaching (Sifuna, 2014). The problems of contemporary academics have coincided with the government agenda embedded in Vision 2040 aimed at using science, technology and innovation to build Uganda's economy (NPA, 2007). Key to this debate is

boosting research, knowledge production, innovation and human resource development to create a knowledge society (UNCST, 2016), which is all manifested in academic work. As a public university with obligation to government, its mandate is under considerable pressure.

UWC on the other hand is one of the historically disadvantaged universities in South Africa with a history of resistance against apartheid and oppression (Daniels, 2018). This university is regarded as a vanguard of the nation's historic change since its inception in 1959 upon which it is committed to aid intellectual, social and economic progress in democratic South Africa (Daniels 2018). It has a student population of 22443 supported by 678 academics (DHET, 2018) by which it contributes to the higher education sector in the country. Important to note is that universities in South Africa were designed for teaching with research more less an optional extra (Wolhuter et al., 2016), thus the balance of teaching against research and community outreach remains a challenge to academia in universities like UWC regardless of its relatively low student numbers.



The national development plan for Vision 2030 suggests that universities have to spearhead knowledge production, innovation and human capital development to propel the country to a knowledge society (NPC, 2011). Academic work in public universities like UWC rests on high expectations from the government. Therefore, despite the difference between the two universities, they were partly selected for comparison due to the inherent challenges they face in the face of national aspirations.

In terms of university rankings, the interest lay in the idea that the position an institution holds speaks to its research capacity a basis upon which its importance to the knowledge age is portrayed (Altbach, 2013). To this end, The Times Higher Education University Ranking (THEUR) and the Centre for World University Ranking (CWUR) were considered as a justification point for the two institutions. The THEUR rankings 2020 show that the two

universities are among the best twenty in Africa given that both took the eleventh position lying between 601-800 (Lumu, 2019; THEUR, 2019). The CWUR 2019-2020 results also show that the two universities are among the top twenty in Africa with MUK at ninth position and UWC at fourteenth position (CWUR, 2019). Thus, UWC emerged as the closest in ranking among South African universities to MUK.

Important to note is that despite the contradictions and scepticism surrounding ranking given the biased measures of capturing the research contribution of Africa, the system still captures the interest of university stakeholders (Cloete, Bunting, & Maassen, 2015; Cloete, Langa, Nakayiwa-Mayega, Ssembatya, Wangege-Ouma, Tebeho, 2016; Teferra, 2015). This possibly explains why the ranking is still an indicator of institutional research capacity, hence, the favourable ranking of the two universities points to their worth to a rising knowledge society. At the same time, the two universities are comparable given the close positions they occupy among universities in Africa. Therefore, MUK and UWC were partially selected for this study due to the importance of the university to the knowledge led development agenda in Africa (Salmi, 2009; Halvorsen, 2016; Teferra, 2016).

In respect to feasibility, elements like logistics, proximity, availability and accessibility of the research sites (Dörnyei, 2003) further influenced the choice of the two universities. That is, I had access to the gatekeepers of MUK, thus, it was easy to negotiate access to the academics in the university. As regards UWC, I am part of the student body, thus, familiarity and ease of access influenced the selection of the university. Constraints in terms of accommodation and transport were reduced by the proximity of the two universities to the researcher.

4.5 Data Collection

I collected the data at three levels, the national, institutional and individual levels in MUK and UWC for a nuanced exploration of the research question. At the national level, policy

documents, specifically the National Development Plan and national policies on ICT, human resource development, science, technology and innovation for Uganda and South Africa were reviewed. At the institutional level, the study considered the annual reports 2007 through 2018, strategic plan and institutional operating plan for MUK and UWC respectively. Stensaker, Lee, Rhoades, Ghosh, Castiello, Gutierrez et al (2019) suggest that institutional documents are salient to the understanding of how institutions are building legitimacy which offers a glimpse into their mandate. Thus, the institutional documents selected provided specific details to research, teaching, and community outreach activities in each university, which aided the establishment of institutional response to national interests. The period 2007 through 2018 was selected because it allowed an over ten-year span to trace trends. In addition, the relevant documents were available up to 2018 at the time of writing the thesis, which further guided the selection. At the individual level, data were collected from academics through whom research, teaching and community outreach is implemented in universities (Teichler et al., 2013). Survey and semi-structured interviews were used to collect data in the two universities. Thus, this study used three methods to collect data, that is, survey, interviews and document review.

The survey through the aid of a self-administered questionnaire was the main data collection method. The advantage of the survey lies in its capacity to make large samples feasible, it is flexible and a number of varying topics can easily be covered (Babbie & Mouton, 2007). Thus, a close ended self-administered questionnaire (SAQ) was used due to its capacity to provide specific data (Creswell, 2014) on academic research, teaching and community outreach in the two universities. The SAQ has four subsections, Section A focuses on the demographic characteristics of the academics. Sections B, C and D focus on academic research, teaching and community outreach respectively. The SAQ is based on a five-point Likert scale where one represents the lowest and five the highest rank. Academics in the two universities were met on

appointment in their office at each institution premise for the exercise. The collection of the data was done cross sectionally in consideration of the costs and time (Creswell, 2014).

Surveys entail a numerical description of the opinions of a sample from a given population (Lewis-Beck, Bryman, & Liao, 2004; Creswell, 2014). The sample for the study was therefore drawn using stratified sampling to ensure that it had the same structure as the population and that all subgroups of the drawn sample are properly represented (Lewis-Beck et al., 2004; Fowler, 2009). I identified eleven departments, which were the only structural point of commonality between the two universities. The departments include Education Studies, Education Psychology, English, Library and Information Science, Economics, Accounting, Law and Jurisprudence, Information systems, Computer science, Chemistry and Biotechnology. The departments were represented by all academic ranks common between both universities. That is, Professor, Associate Professor, Senior Lecturer, Lecturer and Teaching Assistant. The departments yielded a population of 377 academics from both universities. That is MUK contributed 245 academics and UWC 132.

I used Krejcie and Morgan's table of sample size determination to get the sample. This is given by

$$s = \frac{X^2 NP (1-P)}{d^2 (N-1) + X^2 P (1-P)}$$

Where s = required sample size; X^2 = table value of the Chi square for the degree of freedom at the desired confidence level (3.841); N = population; P = the population proportion (assumed to be .50 since this would provide the maximum sample size); d = the degree of accuracy expressed as a proportion (.05) (Krejcie & Morgan, 1970). Therefore, the sample size used in this study is 191 with 124 for MUK and 67 for UWC. I used stratified sampling to ensure that each department in each university is represented according to the contribution to the study population (Fowler, 2009). At the administering level, questionnaires were randomly

distributed, that is academics in each academic rank in each department had a chance to be selected, which limited bias in the sample (Lewis-Beck et al., 2004). Overall, 91 questionnaires were retrieved from MUK representing a 73.4% response rate. In UWC 62 questionnaires were retrieved leading to a 92.5% response rate. Thus, 153 academics provided data by the self-administered questionnaire for this study.

Semi structured interviews were the second source of data for the study. The interviews were specifically conducted to provide insight about the results from the survey data. The interview guide used addressed the academic practices of research, teaching and community outreach between 2007 through 2018. Twenty academics, ten from each university were purposively selected and interviewed because they were knowledgeable (Denzin, 1970; Bryman, 2012) about their work given that they were all part of the university service 2007-2018. The selection cut across sex, academic rank and departments with five female and five male academics constituting a professor, an associate professor, a senior lecturer and two lecturers. Each of the academics represented a department including English, Education Studies, Psychology, Economics, Accounting, Law and Jurisprudence, Library and Information Science, Computer Science, Chemistry and Biotechnology. This aided capturing variations in academics opinions across sex, academic rank and discipline lines in the social and natural sciences. At the same time, all interviewees were part of the survey, which enhanced the accuracy of the gathered data. Interview sessions were conducted at the office of each participant for convenience. Each interview took between 45 minutes to an hour to allow data saturation (Lincoln & Guba, 1985). The interview sessions were audio-recorded with permission from the academics to enhance accuracy of the information captured (King & Harrocks, 2010).

Document review was the third source of data for the study. Documentary information was gathered from relevant documents to the study. These include the National Development Plan

of Uganda and South Africa. The national policies enacted between 2007 through 2018 on Information and communication technology (ICT), science, technology and innovation and human resource development. The annual reports 2007 through 2018, strategic plan and institutional operating plan for MUK and UWC respectively. The identified document were considered for the study because they are legally unassailable and are grounded in the study context (Lincoln & Guba, 1985). The purpose of the document review was therefore to establish the policy context with in which the academic profession is exercised.

4.5.1 Procedure for Data Collection

Data collection in the two universities followed the following procedure: MUK, I started by seeking for permission to collect data through the Academic Registrar of the University, which he granted. In respect to the survey, I then contacted individual academics by email a month before travelling to the institution. While some academics filled and returned the questionnaires by email, for others I had to meet them and leave a hard copy, which I collected in case one filled it. In respect to the interviews, I identified the ten interviewees during the survey period, I either physically or by email requested for an interview.

In UWC, I still commenced with seeking for permission through the office of the Deputy Academic Registrar, which he granted. I then contacted the academics by email about the survey; some responded by filling and sending the questionnaire back to me by email and others were contacted in their offices. In terms of interviews, I identified and requested the academics by email for an interview. In terms of the documents, I downloaded the annual reports and strategic plan from the website of the Planning and Development Department of the University. The annual reports and operating plan of UWC were downloaded from the University website, reports sections. The national policy documents were downloaded from the corresponding website of each document in each country, Uganda and South Africa. As regards the

documents for both universities and nations, there was no formal authorisation required given that the documents are in the public domain.

4.6 Reliability and Validity of the Data

4.6.1 Reliability and Validity of Qualitative Data

The equivalent of validity and reliability in qualitative research is the trustworthiness of the research findings from a researchers' point of view (Creswell, 2014). To this end, four steps were taken to ensure accuracy of data in this study. The first is that the interview process was simulated right from the interview process to the analysis of recorded data before the actual data collection. The doctoral fellows in the Department of Higher Education Studies and a visiting scholar supported the process. Thus, interviews were conducted with prior knowledge of the process, hence gathering relevant data for the study. The second is that anonymity was assured to the interviewees limiting hesitance in providing information on the interview questions. The third is that interview transcripts, were sent back to the interviewees with a request to either add or retract information as one saw fit. Though not all interviewees responded, those who did clarified on a few things and others confirmed accuracy of the captured information. The fourth is that transcripts were double analysed by the researcher and a colleague after which results were compared for consistence (Creswell, 2014).

In terms of document review, the reliability and validity of information gathered was ensured through identifying credible documents. That is, the study used only official institutional and government documents. That is, the annual reports of the two universities have the endorsement of both the University Council and the Vice Chancellor's office. The national development plan and policies are all government publications in both Uganda and South Africa. Thus, the authentic source of the documents made the extracted information credible for this study.

4.6.2 Validity and Reliability of Quantitative Data

In this study, quantitative data was collected with the aid a self-administered questionnaire based a five-point Likert scale. Thus, ensuring the validity of the data entailed two aspects, the first is that the tool was adapted from the Academic Profession in the Knowledge Society Tool (APIKS) traced in two global studies on the academic work. The study tool was further informed by contemporary literature pertaining to academic work in Africa which ensured sufficient representation of the content domain (Cronbach & Meehl, 1955; Reinard, 2006; Salkind, 2007) of the study. The second is that the doctoral and postdoctoral fellows of the Institute for Post School Studies jointly reviewed the questionnaire in a seminar session. The supervisors of the research project further reviewed the SAQ to ensure that it measured the variables relevant to achieve the research objectives (Reinard, 2006).

In respect to reliability, three steps were taken to ensure that the SAQ generated reliable data. The first is that the SAQ was divided into four sections in order to capture each construct in a specific section as part of the evaluation of the internal consistence of the tool. The sections represented background information, research, teaching, community outreach and the knowledge society given as A through D respectively. The second is that the SAQ was pretested through a pilot survey at MUK. The revised tool was used as is to gather data in UWC to maintain the comparison of academic practice between the two universities. The third is that Cronbach's alpha coefficients were generated for each construct in each university to ascertain the reliability of the tool and the captured data. This process is reflected in the ensuing subsection.

4.6.2.1 Reliability Analysis of the Measuring Instrument (MUK)

The reliability index, Cronbach's alpha (α) was computed on all the four subscales of the self-administered questionnaire pertaining to research, teaching and community outreach. The

reliability index was computed separately for each of the four subscales. The SPSS reliability technique available in SPSS version 25 (IBM, 2017) aided the process. In terms of research, the subscale has 16 items from the four five-point Likert scaled questions under the construct. Table 4.1 shows that it registered an internal consistency of $\alpha = 0.868$ which is sufficient since Tavakol and Dennick (2011) suggest it to be at least 0.7. Thus, the items under the research subscale are reliable measures of the construct.

Table 4.1: Reliability Statistics for Research, Teaching and Community Outreach (MUK)

Variable	Number of items	Cronbach alpha
Research	16	0.868
Teaching	13	0.731
Community outreach	21	0.867

Source: Field Survey

In terms of teaching, Table 4.1 shows a Cronbach alpha of 0.731 from 13 items under the two questions Likert scaled from the five that make up the construct. The community outreach subscale has an internal consistency coefficient of $\alpha = 0.867$ from 21 items under the four questions of the construct Likert scaled. Thus, the items under teaching and community outreach are reliable measures of the construct they represent given the reliability index of 0.7 and above for each subscale (Tavakol & Dennick, 2011).

4.6.2.2 Reliability Analysis of the Measuring Instrument (UWC)

Table 4.2: Reliability Statistics for Research, Teaching and Community Outreach (UWC)

Variable	Number of items	Cronbach alpha
Research	16	0.861
Teaching	13	0.505
Community outreach	21	0.861

Source: Field Survey

The academics in UWC were subjected to the same tool thus the reliability index cronbach's alpha was computed on the four subscales of the SAQ. Table 4.2 shows that the items under the constructs of research and community outreach registered an internal consistence coefficient of $\alpha = 0.861$. Thus, the items are reliable measures of each of the construct they represent. On the otherhand, the construct of teaching registered a cronbach alpha of 0.505. This is below the recommended 0.7 (Tavakol & Dennick, 2011; Pallant, 2016) but above the shreshold of 0.5 (Amin, 2005). Thus, the items are also reliable measures of the the construct.

4.7 Data Analysis

Data analysis in this study adopted both the comparative and triangulation method. That is, it focused on identifying the commonality and differences of the study phenomenon (Rust, 2003) specifically in academic research, teaching and community outreach in MUK and UWC. The study further validated quantitative data and results with the qualitative, which (Creswell & Creswell, 2005; Collins, Onwuegbuzie & Jiao, 2008; Creswell, 2009) identify as aiding the comparison for data concurrently gathered as done in this study. The comparison in this study focused on the academic profession in the two universities but with the awareness of the context in which the institutions operate. Thus, policy implications emerging from the knowledge society agenda for the academic profession were compared in the two universities.

That is, the National Development Plan and national policies on ICT, human resource development, science, technology and innovation of Uganda and South Africa were examined against the strategic documents and annual reports 2007 through 2018 of MUK and UWC. The focus was on academic research, teaching and community outreach. Data extracted from the national documents were analysed thematically in order to make meaning out of them. The statistical data extracted from the institutional reports was analysed descriptively using Microsoft Excel 2007 with frequencies and percentages generated. The results were compared

to national policy needs to determine the level of response from the academic profession. Attention was given to the similarities and/or differences that exist between the two universities.

Yet academics views captured through the survey and semi structured interviews on research, teaching and community outreach were also analysed and emerging ideas compared. That is, academic research was compared in terms of approach, number of publications, patents, research funding, Masters and PhD output and collaboration. Teaching was compared in terms of student intake, output, teaching styles, ICT and instruction, staff development and teaching load. Community outreach was compared in terms of type of outreach activities, partners for the outreach activities and the importance to research and teaching to outreach.

The survey data was subjected to statistical analysis at the descriptive level. Descriptive statistics provided a summary of the study sample (Frey, 2018) in terms of the background information and the nature of the academic practices. Tables and graphics were generated to this effect. The Statistical Package for Social Scientists (SPSS) 25.0 aided the process.

Interview data was analysed thematically. Thematic analysis enables identification, analysis and reporting on themes and concepts with in data (Braun & Clarke, 2006) in relation to the research questions. Thus, data were transcribed, coded, categorised and thematically analysed to extract meaning (Bryman, 2012) from academics responses about their practice. NVivo 11 a software for qualitative data analysis that supports researchers in varied ways that they work with data (Jackson & Bazeley, 2019) aided the process.

4.8 Researcher's Role and Reflexivity

Guillemin and Gillam (2004: 275) suggest that a reflexive researcher is one who is aware of potential influence and is able to take a step back and take a critical look at his or her own role in the research process. Awareness of the "self" is key to every research endeavour given that

a researcher actively reconstructs interpretations (Guillemin & Gillam, 2004; Probst & Berenson, 2014). Therefore, it is important to note that my perception of the academic profession in the realm of the knowledge age was shaped majorly by literature on the subject. I am acquainted with both MUK and UWC being an alumna and student of the two universities respectively, thus, the exposure from literature did not seem far from what I thought I knew about academics in the two institutions, which turned out relatively different. The initial idea was that academics would easily share information of what seemed to be routine in their work. I experienced first-hand the hesitation of academics, the “researchers” practically expressing fear of being researched. I realised that the fear came from two closely related issues, first, being evaluated by an outsider even though the questionnaire was anonymous. The second is that while some academics were more into teaching, some were more into research and community outreach seemed secondary. Thus, rating or answering interview questions about some of the practices seemed difficult.

Nevertheless, I endeavoured to remain objective, I documented this experience, which may have undoubtedly influenced the way I understood and interpreted the data. However, the mechanism for reflexivity lies in the attitude with which it is carried out (Probst & Berenson, 2014: 813). Therefore, self-reflection was a constant companion during the entire research process, hence, I worked towards limiting the biases with potential of affecting the outcomes of the research process in the two universities.

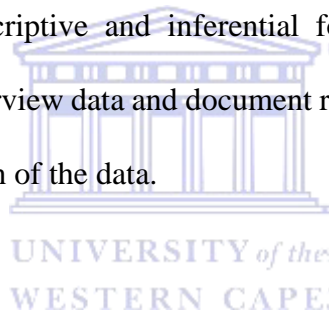
4.9 Ethical Considerations

Bryman (2008) stresses the importance of confidentiality, respect for privacy and informed consent, which were ensured with the protection of the rights of the academics that participated in the study. To this end, I sought for approval from the ethics committee of MUK and UWC. Then, I contacted the academics, first by email and later physically for the survey and interview.

The purpose of the study was explained and the consent sought to ensure voluntary participation in the study (Foreman-Peck & Winch, 2010). Overall, I ensured anonymity and confidentiality by use of pseudo names to seal the identity of the respondents. Data was secured in a safe place with access limited to the supervisor and researcher.

4.10 Conclusion

In order to scrutinise a certain matter, one has to conduct research whose phenomenon is understood by a process of data collection, analysis and interpretation (Lodico et al., 2010). It is therefore in this spirit that this study was implemented based on a cross-national comparative concurrent mixed methods design guided by the neo institutional framework. Data collection procedures including survey, interviews and document review were used to collect data. Data analysis procedures that is descriptive and inferential for survey data and the thematic framework were used for the interview data and document review. The ensuing chapter covers the presentation and interpretation of the data.



Chapter Five

Response of the Academic Profession to the Policy Needs of Uganda and South Africa

5.1 Introduction

Universities among other entities are expected to partake of the national quest of constructing a knowledge society in Uganda and South Africa. Thus policy needs including knowledge expansion, innovation, human capital development, the adaption and use of ICT in education and development emerged in literature. These are consistent with national policies on ICT, science, technology and innovation, human resource development and the national development plan/s of both countries. This chapter therefore provides specific details consistent with emerging themes to this effect. These are analysed from a neo institutional perspective against documented undertakings in research, teaching and community outreach. The annual reports 2007 through 2018, strategic plan and institutional operating plan for MUK and UWC respectively facilitate the process. This is due to specific details that they provide upon which the extent to which the academic profession is responding to the policy needs of the two countries is determined. I present, analyse and discuss results from the two universities independently after which I present a comparative discussion. The ensuing subsections provide further details to this effect.

5.2 Results and Discussion, Makerere University, Uganda

In this section, I examine the themes that emerged from a thematic analysis of relevant national policy documents of Uganda. This entails three themes associated with six subthemes and the corresponding categories. Details to this effect are reflected in Table 5.1. This is discussed alongside the secondary data on academic research, teaching and community outreach 2007 through 2018 and the strategic plan 2008/09-2018/19 of MUK. I present, analyse and discuss the details to this effect in the ensuing subsections.

Table 5.1: Themes, Subthemes and Categories in the national policy documents of Uganda

Themes	Subthemes	Categories	Analytical Framework
Knowledge production for innovation	Research output	Quantity and quality of the publications	Coercive and normative isomorphism
	Innovation	Patents registered Collaboration between the industry and the university	
	Postgraduate output	Community based knowledge production Quantity of postgraduates produced annually	
Human Resource production	Quality and quantity of human resource	Knowledge and skills for twenty first century graduates Science versus arts	Coercive, mimetic and normative isomorphism
	Curriculum	Labour supply versus demand Life long learning Teaching approach Theoretical versus practice based curriculum	
ICT integration in universities	Academic responsibility	Training for the knowledge society ICT competence among academics Prioritising research on ICT integration for societal benefit	Mimetic Coercive isomorphism

5.2.1 Knowledge Production for Innovation

This theme emerged from the highlights of three policy documents, the first is the science, technology and innovations policy which notes that Uganda's foundation for a knowledge society lies in the adoption and utilisation of science, technology and innovation (Ministry of Finance Planning and Economic Development, 2009). However, the policy indicates that there is a shortage of skilled manpower and over dependence on foreign technology. The second is the national science, technology and innovation policy plan which identified the government's targets as involving creating a critical mass of scientists and engineers for research and scientific innovation (MFPED, 2012).

The third is the the national development plan which specifically identified academia as one of the key prayers to spearhead research and knowledge transfer (NPA, 2015). Thus, despite existing challenges, the national target is to accumulate scientific knowledge to foster innovation, hence the theme of knowledge production for innovation. Thus academia has to prioritise research output, innovation and postgraduate output for the fulfilment of the set agenda. This provides an avenue for understanding the practical terms through which the university is meant to heed to the national need. Further details to this effect are discussed in the ensuing subthemes.

5.2.1.1 Research Output

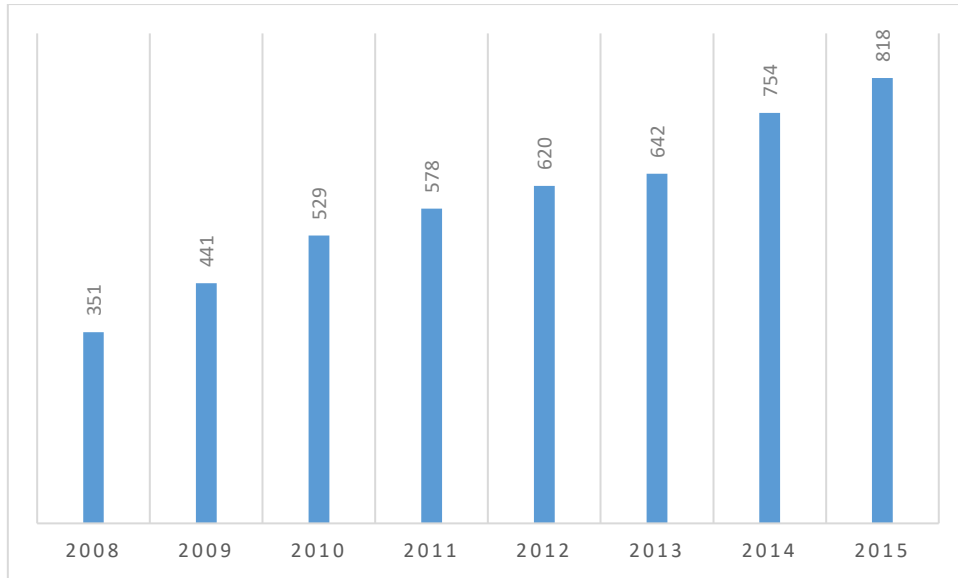
Academic research in MUK is expected to generate knowledge worth to the knowledge age as targeted by the government. Evidence to this effect is reflected in the national science, technology and innovation policy plan that notes:

Key among national aspirations [is the] transformation of the economy from an agrarian to an industrial and knowledge based economy and enhancing Uganda's participation in global trade and development process (MFPED, 2012).

This presents an opportunity and a challenge to scientists...to transform scientific knowledge into programmes for the realisation of Uganda's development aspirations (MFPED, 2012).

This suggests that a public university like MUK that houses majority scientists in the country (Planning and Development Department, 2017) is to prioritise research to serve national interests. This insinuates coercive isomorphism upon which public institutions are abiding by national policies to appear legitimate for state support (Croucher & Woelert, 2016). Henceforth, the strategic plan of the university 2008/09-2018/19 based on the “increasing shift of the country to a knowledge society” (Planning and Development Department, 2007a: 9) and set research as a strategic thrust for the generation of the requisite knowledge to power the economy.

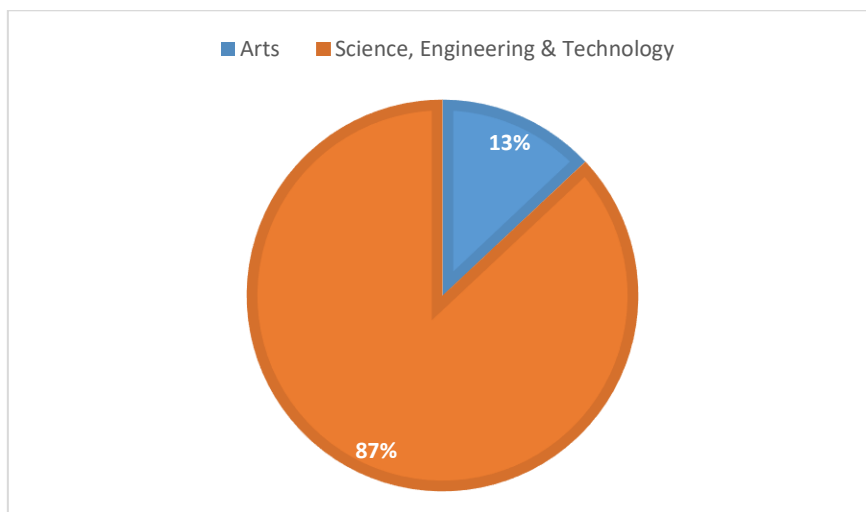
There are three practical steps that the university took, the first is that it effected a research policy in 2008 to boost the quality and volume of knowledge produced (PDD, 2008; 2009). The second is that multidisciplinary in research was administratively encouraged for the production of knowledge worthy of tackling a multiplicity of contemporary challenges (PDD, 2016). The third is that partnerships were made with universities in the Nordic countries to develop the research capacity of academic staff through doctoral and postdoctoral training (PDD, 2015; 2016; 2017). Consequently, the number of publications identified with the university has noticeably increased over the years. A case in point is the pattern reflected from the data of the 2017 annual report of the university on the publications from Scopus database 2008 through 2015. Figure 5.1 provides the details to this effect.



Source: (PDD, 2017)

Figure 5.1: Research Publications in the Scopus Database for MUK

Figure 5.1 shows a persistent increase in number of publications which suggests commitment of the university to knowledge production. In the same vein, data from the same database, that is, Scopus shows that most of the publications are from the science, engineering and technology related fields (PDD, 2017). This further reinforces progress in knowledge production in the university given the alignment to the desired science sector. Figure 5.2 provides the details to this effect.



Source: PDD (2017)

Figure 5.2: Scopus Research Publications by Subject Area

The two figures further point to the idea that academics in the university yielded to normative principles reflected in publishing in the peer-reviewed journals and top-notch publishing houses for the capture of their publications in one of the leading databases, Scopus. Thus, the university took deliberate efforts to focus on the quality and quantity of the knowledge produced in the institution. This suggests that MUK is making relatively good progress towards fulfilling its role of knowledge production. This finding corroborates with the findings of Mugimu, Nakabugo and Katunguka (2013) that established an increase in volume of research in Makerere University with the highest productivity registered in the science related disciplines. The knowledge production attest to the university's attempt to fulfil its obligation to the rising knowledge society in Uganda.

5.2.1.2 Innovation

Knowledge produced in the university is expected to aid innovation; however, at the time of enacting the Science, Technology and Innovations Policy in 2009, the innovation capacity in the country was limited. It emerged that the university was still a weak entity to generate innovations for the desired economic transformation in the country. The evidence to this effect is reflected in the STI policy, which notes:

Ugandan universities and research and development institutions have a weak research capacity...the bulk of research work is of basic nature with limited potential for industrial development. In situations where applied and development research exists, it is rarely transformed into feasible technological packages for the production of goods and services (MFPED, 2009).

In the case of patents, very few applications are received annually. According to the recent UNCST [Uganda National Council for Science and Technology] survey data, only 40 patents have so far been granted for local inventions and usually,

less than three patent applications are submitted in any given year (MFPED, 2009).

Thus, the underlying expectation is for the university to turn the situation around and boost innovation to the level of the national need. To this end, MUK identified research as the locus of scientific discoveries to boost national development (PDD, 2014). This strategic focus has so far led to extensive research, which has yielded discoveries in mainly three areas; the first is health where discoveries are registered in nutrition, maternal health and medicine (PDD, 2016; 2017; 2019). The second is agriculture where new crop species, animal breeds, solar powered irrigation, agro-processing technologies and value addition define achievements of the field annually (PDD, 2016). The third is ICT where apps have been developed like the Farmers Mobile app and Bulamu Mobile to ease access to information on agriculture and health respectively in communities across the country (PDD, 2017).

Thus, the university seems to be making fair strides towards innovation considering that in 2016 alone, 150 innovations specific to discoveries in the fields of agriculture, health, engineering and governance were identified (PDD, 2016). This points to two aspects, the first is that the university seems to be responding to the national quest on innovation which aligns with the contemporary university survival mechanism of responding to the needs of the environment of operation (Acer & Güçlü, 2017). The second is that the transformation of knowledge into innovations suggests a practical approach to research in the university. This corroborate with the findings of studies (Bazeley, 2010; Gibbons et al., 2011; Gopaul et al., 2016) that identify practical oriented knowledge with the knowledge age that requires knowledge to tackles contemporary societal needs. Thus, MUK may be making fair progress in responding to the policy needs pertaining to knowledge production and transfer for the rising knowledge society in Uganda.

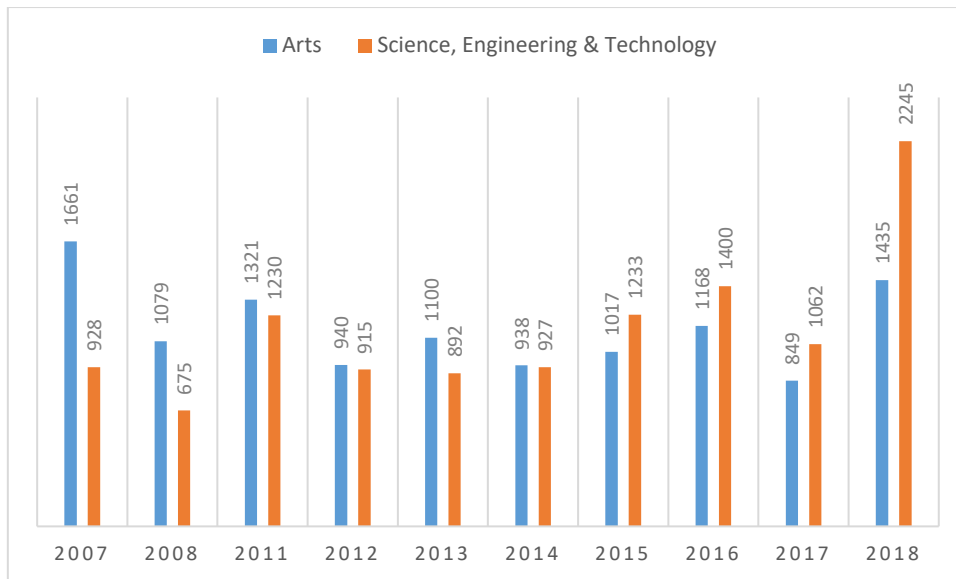
5.2.1.3 *Postgraduate Output*

The findings show that there is a shortage of human resource to spearhead knowledge production for the national need. It emerged that universities in the country are producing a limited number of postgraduates in the desired science and technology sectors. Evidence to this effect is reflected in the Science, Technology and Innovations Policy that notes:

Uganda's resources in science and technology of 0.5 researchers per 1000 members of a workforce is far inadequate compared to over 5 per 1000 for the developed world (MFPED, 2009).

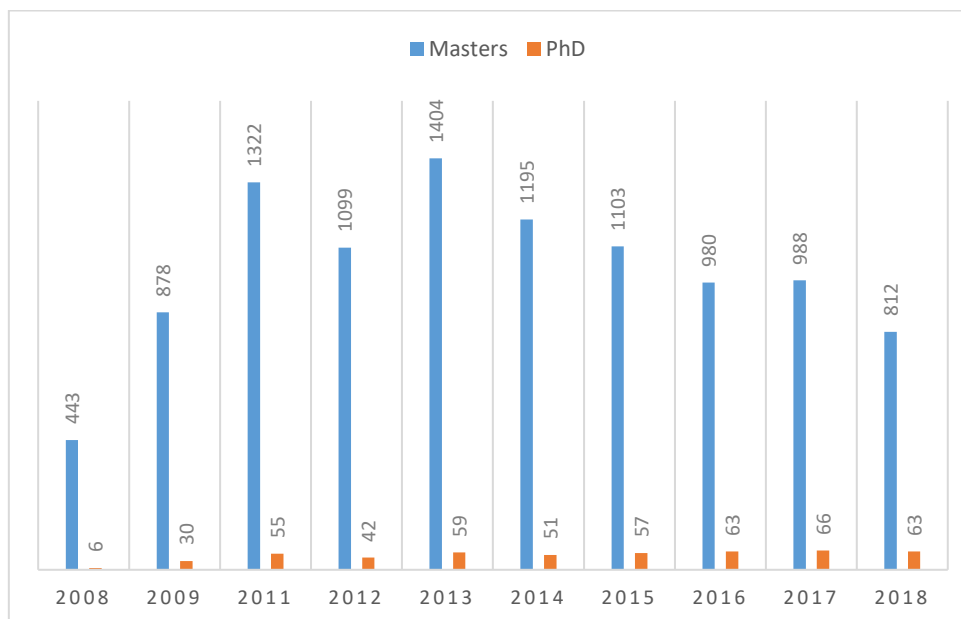
An analysis of postgraduate training has revealed that graduates at masters and doctoral levels in science and technology fields are relatively low: less than 10 PhDs in science and technology per annum (MFPED, 2009).

This provides evidence of the relationship between a typical university output like postgraduate graduates and the national development needs. This suggests coercive isomorphism upon which universities in the country like MUK must respond to environmental forces to secure legitimacy (Papadimitriou, 2011). Consequently, MUK has embarked on two avenues to boost its postgraduate output. The first is that a number of scholarships are offered to staff and students through its partners like the German Academic Exchange Service, the Carnegie Corporation of New York and the Consortium of Advanced Research Training in Africa to propagate Masters and PhDs for the improvement of postgraduate supervision capacity in the university (PDD, 2019). The second is that the institution embarked on training more postgraduates. However, the number of students enrolled in the science related programmes may have increased gradually but the general output more so for PhDs is still low (PDD, 2007; 2008; 2019). The available data 2007 through 2018 shows the details in Figures 5.3 and 5.4.



Source: PDD (2007-2008 & 2019)

Figure 5.3: Postgraduate Enrolment, MUK 2007-2008 & 2011-2018



Source: PDD (2008-2009 & 2019)

Figure 5.4: Postgraduate Graduation, MUK 2008-2009 & 2011-2018

Figure 5.3 shows that 2014 was the decisive year when the numbers in the science related programmes outweighed those from the arts related programmes. This suggests a shift in focus that reflects the national priority given that the last four years are characterised by a dramatic interest in the science fields. The figures in Figure 5.4 however show that there is limited

continuity from Masters to PhD given the trends in PhD output. Furthermore, the figures may not reflect whether the PhDs are in the Arts or Science related fields but it is evident that they are not high enough to create a critical mass of knowledge workers to boost the innovation in the country.

This suggests that the university may be making effort to boost postgraduate output but the limited output more so for PhD point to limited progress in relation to the national need. The findings are in agreement with the findings of a study on building PhD capacity in Sub Saharan Africa which established the limited number of PhD output in the sub region (African Network of Internationalisation of Education, 2018). Relatedly are the findings of a study on Makerere University among other research universities in Africa, which established that there were few PhD graduates in all but the South African institution (Cloete et al., 2018). Thus, in terms of postgraduate output, MUK may have limited response to the policy need for the rising knowledge society in Uganda.



5.2.2 Human Resource Production

The human resource development policy associates active participation in the knowledge age with the availability of a solid workforce specific to knowledge workers. Thus, the government indicated a need for “highly skilled, well educated, competent and productive citizens in line with the national development agenda” (NPA, 2018: ii). Relatedly, the science, technology and innovations policy notes that “economies that are driven by scientific and technological innovation rely on existence of a critical mass of scientists and engineers” (MFPED, 2009: 9). Yet the national STI policy plan notes that “knowledge workers are critical to the strategic integration of science and technology in the national development process” (MFPED, 2012: 4). This discussion highlights the importance of human resource for the national development agenda, which led to the theme of human resource production, which explores the idea of

workforce development for knowledge led development. This discussion suggests three factors to checkoff for the labour force to meet the mark. These include the quality of the human resource, its quantity and the nature of the curriculum it is subjected. This forms the yardstick for understanding the measure of alignment of MUK to the national interest.

5.2.2.1 *Quality and Quantity of Human Resource*

The findings indicate that human capital is required for the quested knowledge society. However, the skills and knowledge exhibited by the existing workers require more emphasis on training offered to students. The science, technology and innovation fields emerged as the priority areas for the nation to this effect. Evidence pertaining to the issue is reflected in the national human resource development-planning framework that notes:

The Uganda Vision recognises that among the strategic bottlenecks constraining the country's socio-economic development since independence are the under developed human resources (NPA, 2018).

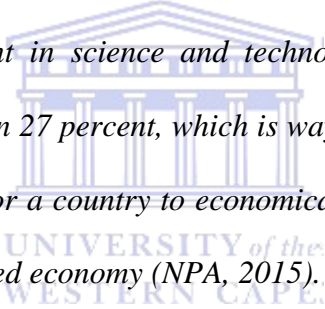
The underlying focus is to ensure that the country's human resource is well educated, healthy, skilled and competitive on the continent; underpinned by science, technology and innovation for a knowledge based society (NPA, 2018).

Thus, the nature of the desired human resource rests on higher education institutions like universities nationally designated to train high-level labor. This points to isomorphism, that is public universities like MUK seek to tailor the training of students to the level compelled by the government which reiterates the conformity to societal forces by formal structures of organisations in the post-industrial society (Greenwood, Oliver, Sahlin, & Suddaby, 2012). Thus, MUK made a strategic decision to focus on the learner-centred pedagogy to aid the production of graduates with problem solving knowledge and skills suitable for contemporary

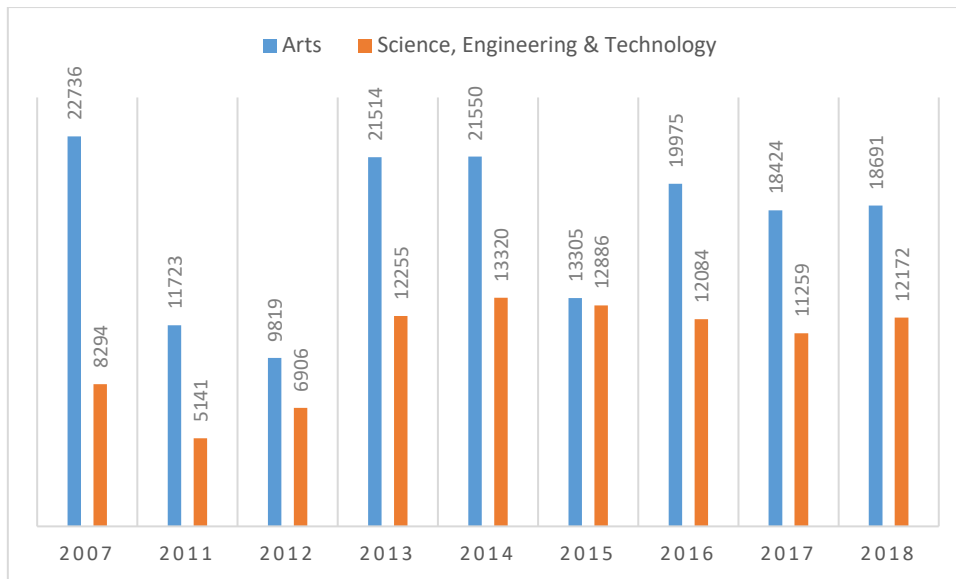
Uganda (PDD, 2007a: 2017). Trainings are therefore conducted annually for academic staff to build their competence in delivering an outcomes based curriculum (PDD, 2008; 2011; 2015; 2019). Given the measures taken, it is likely that graduates from the university are better prepared to serve contemporary Uganda. This resonates with the findings of Ecuru (2011) who established an improvement of the quality of education at all levels universities inclusive which he concluded as contributing to a steady supply of a skilled workforce in Uganda.

Relatedly, the number of graduates especially in the science, technology and innovation fields is expected to be high enough to meet the national need. The evidence from the National Development Plan however shows that by 2015, the number of STI graduates was still way below the required. This is reflected in the evidence that notes:

The student enrolment in science and technology at both private and public universities is less than 27 percent, which is way below the UNESCO minimum of 40 percent required for a country to economically take off and participate in the global knowledge based economy (NPA, 2015).

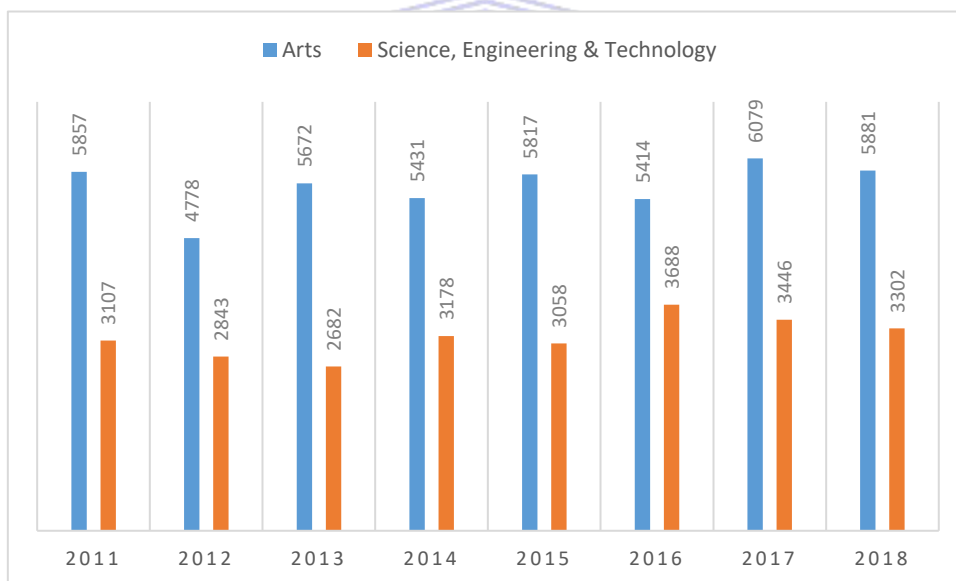


The idea that universities cannot meet the bear minimum suggests an imbalance in student intake and output at a disciplinary level more so at the undergraduate level, an entry level for majority students. Indeed, the evidence from MUK shows that undergraduate figures at both enrolment and graduation are low in the science compared to the arts related fields. Available data 2007 through 2018 provides the details to this effect in Figures 5.5 and 5.6.



Source: PDD (2007 & 2011-2019)

Figure 5.5: Undergraduate Enrolment, MUK 2007 & 2011-2018



Source: PDD (2011-2019)

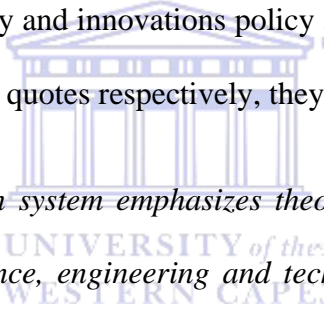
Figure 5.6: Undergraduate Graduation, MUK 2011-2018

The two figures suggest that the number of workers in science, engineering and technology is still limited in the country given that MUK which takes on majority students in all education fields in the country (NCHE, 2018) still registered a shortage. Thus, the national knowledge led development agenda is hampered by the low chances of creating knowledge workers to

boost the capacity for knowledge production for innovation in the country. Hence, the university may have succeeded in improving the quality of its graduates but not the quantity in relation to the national need. This finding corroborates with findings of NCHE (2018) that established a low output of graduates in the science related fields in the universities across the country MUK inclusive. The instruction practices in MUK may therefore have a low response to the policy needs of the rising knowledge society in Uganda.

5.2.2.2 *Curriculum*

The findings indicate that the Ugandan labour market receives graduates short of the required knowledge and skills. It emerged that the universities are grooming learners with a curriculum less befitting of the contemporary labour needs of the country. The evidence to this effect is reflected in the science, technology and innovations policy and the national development plan represented in the first and second quotes respectively, they note:



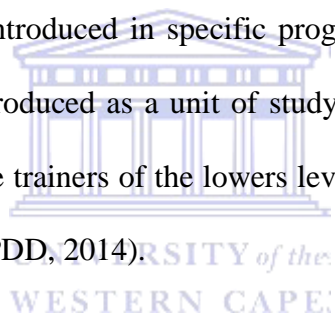
The current education system emphasizes theoretical academic work with little depth of applied science, engineering and technical skills which are central to technological innovation (MFPEd, 2009).

There is a mismatch between the curriculum at the tertiary institutions and the labour market requirements which explains the high graduate unemployment rates on Uganda's labour market (NPA, 2015).

This provides evidence of an expected reform of the curriculum in universities with an obvious urgency for the science related fields. This possibly explains the centrality of curriculum reform in MUK given that it dominated all annual reports of the university 2007 through 2018 with a listing of revised and introduced programmes (PDD, 2007b; 2008; 2011; 2012; 2013;2014; 2015; 2016; 2017; 2019). Important to note though is that the reform seems to cut across all

fields of study fairly contrary to the rather preferred heightened focus on science related fields by government. Regardless of the approach, MUK's response points to political pressure which studies (Kezar & Bernstein-Sierra, 2019; Mejía, Del Val, & Coscollar, 2020) associate with coercive isomorphism as a motivator of curriculum reform among contemporary universities typical of the expectation to train for the rising knowledge society in Uganda.

Consequently, MUK embarked on content and delivery reform as strategies of situating the university curriculum in the contemporary national and global socio-economic trends (PDD, 2017). In relation to content, the university popularised the competence-based curriculum, which led to problem based learning that focused on learning outcomes and skills development to meet the needs of the labour market in the country (PDD, 2007a: 2011; 2016). At the same time, new areas of focus were introduced in specific programmes. For example, integrated sustainable development was introduced as a unit of study in the College of Education and External Studies to prepare future trainers of the lower levels of education for the changing economic trends in the country (PDD, 2014).

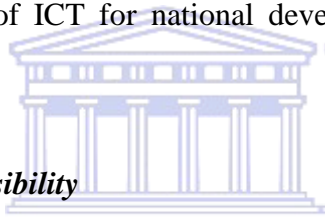


In terms of curriculum delivery, four aspects were and are still emphasized, the first is a research informed teaching to cater for the changing societal needs (PDD, 2007). The second is the use of learner centred approach to produce independent graduates with a predisposition to lifelong learning (PDD, 2008; 2013; 2019). The third is the introduction of a multidisciplinary PhD programmes in the social science to produce more knowledge rounded graduates (PDD, 2011). The fourth is the joint training of students with the government and private firms through internship (PDD, 2016). This suggests a rather detailed response to the national quest of curriculum reform. This finding is line with the findings of Dumitru, Stanciu, Dumitru and Feleagă (2014) and Yin, Lee and Wang (2014) that established that the quest for knowledge, skills and competence required in the modern world is forcing the university to

reform the curriculum according to stakeholders needs. Thus, in terms of the curriculum, its reform and delivery, MUK may be fairly responding to the policy needs of the rising knowledge society in Uganda to this effect.

5.2.3 ICT Integration in Universities

This theme covers the intricacies of what and how ICT can aid Uganda’s quest to operate as a knowledge society. The theme emerged from the highlights of two policy documents, the first is the national ICT policy, which calls for “mainstreaming the teaching of ICTs in all aspects of education and training curricular of universities and colleges” (MICT, 2014: 53). The second is the national science, technology and innovations policy plan that calls for the promotion of national productivity through ICT (MFPED, 2012). Thus, the government expects universities to teach and research the field of ICT for national development. The ensuing discussion provides the details to this effect.



5.2.3.1 Academic Responsibility

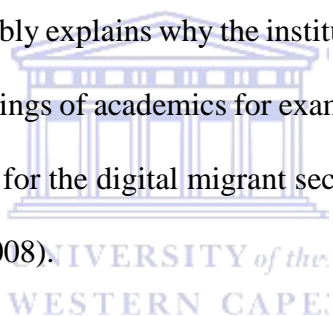
The findings indicate that universities are expected to build the competence of the learners in ICT to prepare them for service in the technological age in the best way. At the same time, university research in the area of ICT is expected to permeate the walls of the academic community for national development to be achieved. The evidence to this effect is reflected in the national ICT policy that notes:

Leverage ICT for the transformation of Uganda into a knowledge society by 2025....currently, the professional ICT human resource in both public and the private sector is in adequate and lacks relevant professional skills (MICT, 2014).

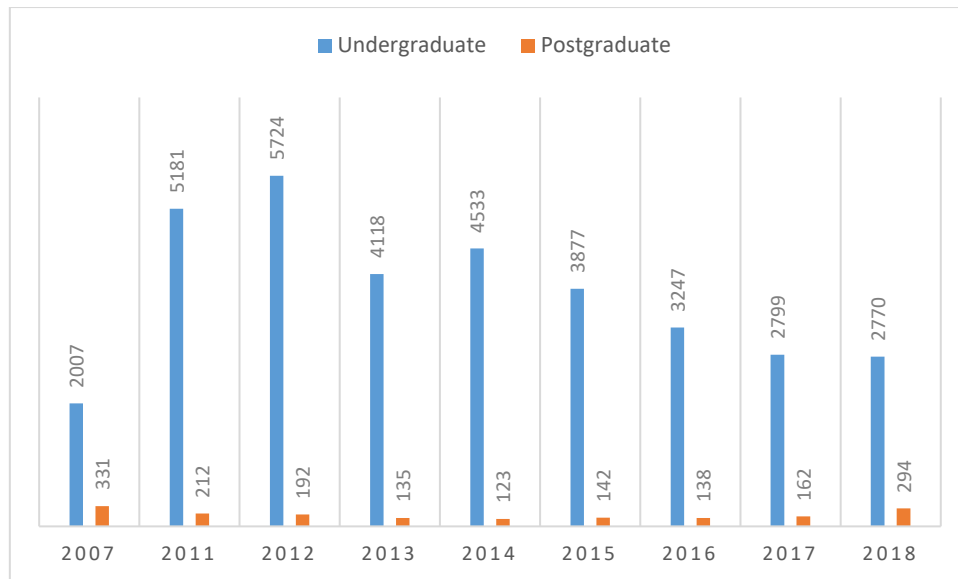
The nation’s colleges, universities and research institutions shall play a significant role in implementing this policy by: developing the nation’s critical human and

technical expertise as well as its scientific and industrial research capacity (MICT, 2014).

Ultimately, universities in the country like MUK are obliged to respond to the competitive pressures from both the market and state. This points to isomorphism given that Mejía et al (2020) note that universities trapped under forces from the environment in which they operate have embarked on two things. The first is that institutions especially public ones are conforming to standard guidelines from government to survive the turbulent higher education landscape. This may explain why the strategic plan 2008/09-2018/19 designated ICT as a “vehicle for teaching and learning, research and innovation” (PDD, 2017: 13). The second is that the uncertainty surrounding the adoption and use of ICT has been confronted with professional flexibility. This possibly explains why the institutionalisation of ICT in MUK took three steps, the first involved trainings of academics for example in designing and managing e-Learning course modules to cater for the digital migrant section of academics teaching digital natives in the university (PDD, 2008).



The second involved mainstreaming learner centred approaches in the teaching and learning process by creating e-Learning platforms like the Makerere University e-Learning Environment (MUELE) (PDD, 2012). At the same time, pedagogical enhancements like the use of video and audio content were and are still used to boost learners discipline and ICT knowledge and skills (PDD, 2016). The third involved boosting the number of entrants into ICT related fields of study. However, available data 2007, 2011 through 2018 shows relatively worrisome figure as reflected in Figure 5.7.



Source: PDD (2007& 2011-2019)

Figure 5.7: Undergraduate and Postgraduate Enrolment in ICT Fields, MUK 2007-2018

Figure 5.7 points to a relatively fair number of enrolled undergraduates in the university though the skewness of numbers to the decline end in the most recent years depicts a rather frustrating picture. At the same time, the low and fractuating enrolment figure for postgraduates point to a grim situation. This suggests relatively low progress in building human capital in the ICT related fields in the institution. However, the overall initiatives in the field suggests that MUK is committed to responding to the technological world though the results do not seem to satisfy the desired national need. The finding corroborates the findings of Jowi and Obamba (2013) who established a mismatch between national level policies and institutional realities devastating the realisation of the knowledge based economy. Given that the discussion points to a shortfall in the teaching mandate, the practice in MUK may have rather limited response to the policy needs of the rising knowledge society in Uganda.

5.3 Results and Discussion, University of the Western Cape, South Africa

In this section, I examine the themes that emerged from a thematic analysis of relevant national policy documents of South Africa. The data revealed two themes associated with five

subthemes and the corresponding categories. Details to this effect are reflected in Table 5.2. This is discussed alongside the secondary data on academic research, teaching and community outreach 2007 through 2018 and the Institutional Operating Plans 2010-2014 and 2016/2020 for UWC. I present, analyse and discuss the details to this effect in the ensuing subsections.



Table 5.2: Themes, Subthemes and Categories in the national policy documents of South Africa

Theme	Subtheme	Categories	Analytical Framework
Knowledge production	Research output	Number of publications Knowledge transfer	Coercive, mimetic and normative isomorphism
	PhD output	Quantity of PhDs Knowledge workers	
	Innovation	Knowledge transfer Number of patents	
Human capital development	Nature of human resource	Quality and quantity of graduates ICT competence of graduates Number of graduates Arts versus science graduates Research process Knowledge transfer ICT in the teaching and learning process	Coercive, mimetic and normative isomorphism

5.3.1 Knowledge Production

This theme emerged from the interest of three policy documents, the first is the national development plan which specifically noted that sufficient knowledge production will enable South Africa respond better to the twenty first century challenges (NPC, 2011). The second is the human resource development strategy which calls for improvement in research and innovation by increasing “the percentage of the global share of research publication” (HRDC, 2009: 41). The third is the ten year plan for innovation which indicated that South Africa must urgently address the PhD deficit and the limited commercialisation of scientific research (DST, 2007). Therefore knowledge production as a theme emerged from the national need to boost the research output, PhDs and innovation. The details in the ensuing subsection provide an understanding of UWC’s stand against the expected outcomes.

5.3.1.1 Research Output

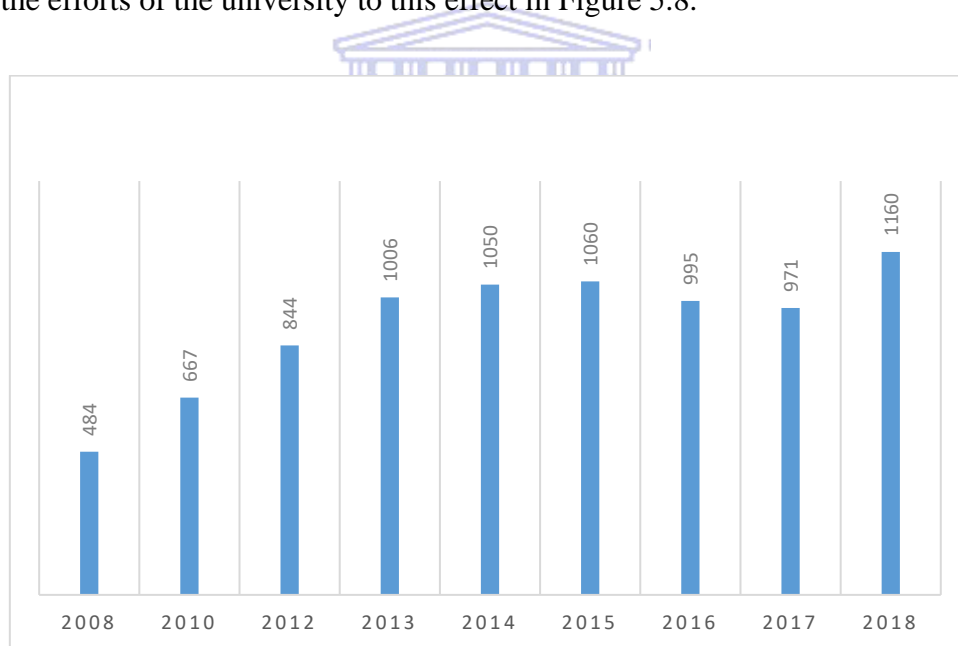
The findings indicate that knowledge is salient to the contemporary development agenda of South Africa. Thus, its production in qualitative and quantitative terms, the number of PhDs produced and their contribution to knowledge production as well as the innovations that arise are a matter of national concern requiring responsible parties to respond accordingly. This is reflected in the evidence portrayed in the national ten year plan 2008-2018 for innovation towards a knowledge based economy which notes:

This ten year innovation plan is to help drive South Africa’s transformation towards a knowledge based economy in which the production and dissemination of knowledge leads to economic benefits and enriches all fields of human endeavour (DST, 2007).

Progress towards a knowledge based economy will be driven by four elements; human capital development, knowledge generation and exploitation, knowledge

infrastructure [and] enablers to address the “innovation chasm” between research results and socio economic outcomes (DST, 2007).

Universities cited as the main source of knowledge in the country (DST, 2007) are evidently expected to address the national need. The state university relationship suggested points to coercive isomorphism. It speaks to the commitment of public universities like UWC to meet national expectations which in turns aids it to secure recognition for survival (Acer and Güçlü 2017; Hughes & Hughes, 2013). Needless to say, the Annual Report (2014) and the Institutional Operating Plan 2016-2020 (UWC, 2016) indicated that the University has committed to cutting edge research and innovation to generate new knowledge essential to South Africa’s development. Available data on the publication units 2008, 2010 and 2012-2018 portrays the efforts of the university to this effect in Figure 5.8.



Source: UWC (2018)

Figure 5.8: UWC publications Units 2008, 2010 & 2012-2018

Figure 5.8 shows a persistent increase in the research outputs of the university though with a slight decline 2016 through 2018. However, the high figures point to a general commitment towards knowledge production in the university as further evidence shows that the University

surpassed the 1.25 research units expected per permanent academic staff member by 2011 (UWC, 2012). Relatedly when the publications of South African researchers were measured against impact to society, the university took the fifth position out of over twenty universities (UWC, 2012) which points to the relevance of the knowledge produced for the nation. There are two points of focus from this discussion; the first is the increasing research output in the university, which finding resonates with the finding of CHE (2016) and DHET (2018) that reflect a statistical manifestation of a rise in publications in South African universities. The second is the relevance of the knowledge produced which finding corroborates the findings of Fonn et al (2018) that recognised the positive steps of African universities towards knowledge production as a foundation for effective transition to a knowledge economy.

5.3.1.2 *PhD Output*

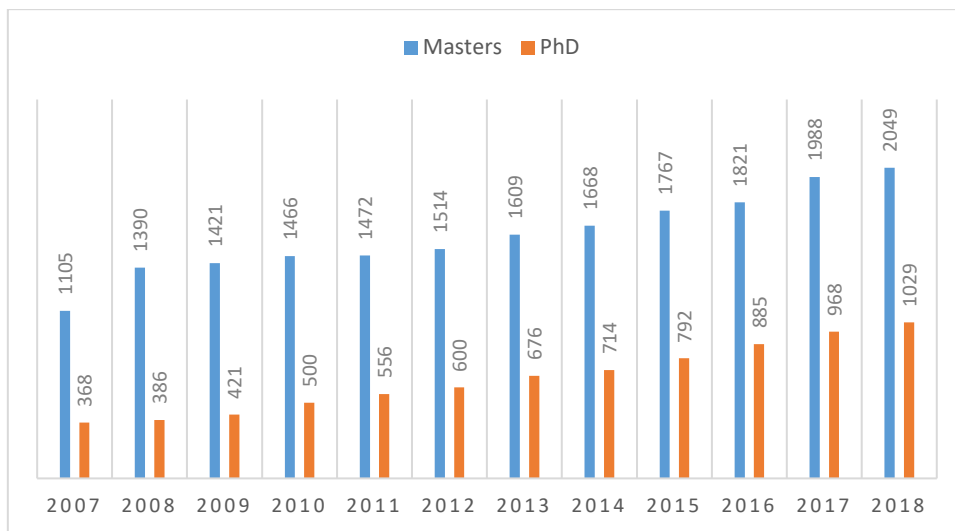
An examination of the PhD output in relation to knowledge production shows a rather worrisome picture. That is the national targets require a high number of academic staff with PhDs to mentor an equally high number of postgraduates to completion more so PhDs to boost knowledge production. This is reflected in the national development plan and the national ten year plan 2008-2018 for innovation towards a knowledge based economy which note:

To build a knowledge based economy positioned between developing and developed countries, South Africa will need to increase its PhD production rate by a factor of about five over the next 10-20 years (DST, 2007).

Increase the percentage of PhD qualified staff in the higher education sector from the current 34 percent to over 75 percent by 2030 (NPC, 2011).

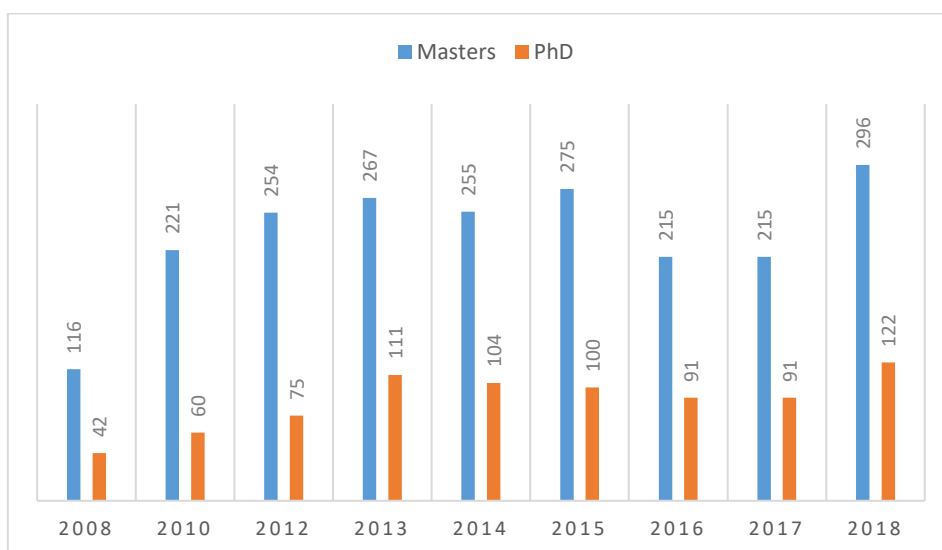
This provides the evidence that universities in the country are expected to rise to this challenge yet the figures pertaining to the two targets in UWC point to a shortfall. That is, the latest annual report shows that the university failed to meet its own target of having at least 59 percent

of its academic staff with a PhD since only 55.2 percent met the criteria (UWC, 2018). This is still way below the national target of 75 percent. At the same time, the postgraduate enrolment and research output also show inconsistency. That is while the enrolment shows a persistent increase in number of both Masters and PhD students in the university; the research output particularly for PhD achievers is low. The details to this effect are reflected in Figures 5.9 and 5.10 respectively.



Source: UWC (2007-2018)

Figure 5.9: Postgraduate Enrolment, UWC 2007-2018



Source: UWC (2018)

Figure 5.10: Postgraduate Publication Units UWC, 2008, 2010 & 2012-2018

There are two suggestions emanating from the two figures. The first figure, 5.9 points to a low conversion from Masters to PhD given that less than half the students enrolled at Masters are enrolled at PhD for all cited years but 2018. The second figure, 5.10 further points to a relatively low number of postgraduate degrees in relation to the enrolment in Figure 5.9 given that the publications are a reflection of the papers extracted from the completed thesis (UWC, 2016; 2018). This is more apparent with the PhDs, which suggests that the university may not be contributing as expected to the national quest simply because it has little to no control over student interest in pursuing a PhD to completion. This finding contradicts with the findings of De Jager, Frick and Van Der Spuy (2017) that established a substantial increase in number of PhDs in a university in South Africa. Contradictory findings are further noted with Cloete, Sheppard and Bailey (2015) that present South Africa as a PhD hub for Africa. Thus, UWC may still have more to do to contribute to the policy needs of the nation to this effect.

5.3.1.3 Innovation

The national ten year plan 2008-2018 for innovation towards a knowledge based economy expects that by 2018, South Africa will have “210 research chairs at universities and research institutions across the country by 2010 and 500 by 2018” (DST, 2007: 31) to mentor and spearhead research to boost knowledge generation and exploitation. Henceforth, the innovation plan indicated that by the same period, there will be “24000 patent applications at the South African patent application office” (DST, 2007: 31). As one of the identified entities, universities are expected to contribute to the targets. This possibly motivated the setup of the set up a technology transfer office by 2009 (UWC, 2009), which marked the first major step towards bolding the university’s innovation contribution to the country.

In the subsequent years, the university committed its self to support the country’s innovation aspirations by availing human capital and knowledge to the industry, government and the society (UWC, 2012). By 2015, the university had sixteen patent disclosures, four patent

applications three option and license agreements and twenty one commercialization projects (UWC, 2015). UWC (2018) identified two more aspects that further boosted the innovation capacity of the university. The first is the increase in number of National Research Foundation (NRF) rated academics to 150 by 2018 from 61 in 2009. The second is the increase in the number of South African Research Chairs to 19 from the initiative of the Department of Science and Technology and NRF. This suggests commitment of the University to the national quest given the measures taken to ensure the quality of the academics for the task.

In the same vein, the national recognition of the university's scholars points to accepted isomorphism. That is, the university has embraced the selection norms like other universities in the country for recognition as an entity with the capacity to contribute to knowledge production and innovation identified as necessary for South Africa's growing knowledge-based economy (UWC, 2017). Important to note is that the developments in innovation exist in tandem with knowledge transfer practices in fulfillment of the university's choice to make partnerships and networks with the industry, public and the private sector to further its mandate (UWC, 2012; 2015; 2018). This discussion suggests that UWC may be making relatively fair progress in innovation to the national need. This finding however contrasts the findings of Jakovljevic (2018) and Patra and Muchie (2018) who established that there were low levels innovation among the researched South African universities.

5.3.2 Human Resource Development

This theme emerged from the highlights of three policy documents, the first is the human resource development strategy which calls for a match between the supply and demand of human resource (HRDC, 2009). The second is the national development plan which considers the enhancement of human capital as key to boosting productivity at the national level (NPC, 2011). The third is the white paper on science, technology and innovation which calls for an expansion and transformation of human resource in order to boost STI (DST, 2017). The theme

therefore captures the basic characteristics required of the human resource to serve the contemporary South African economy. It emerged that the skills, knowledge and experience required is expected to be nurtured at the university. Thus, exploring this theme aids the understanding the level of response of UWC to this effect.

5.3.2.1 Nature of Human Resource

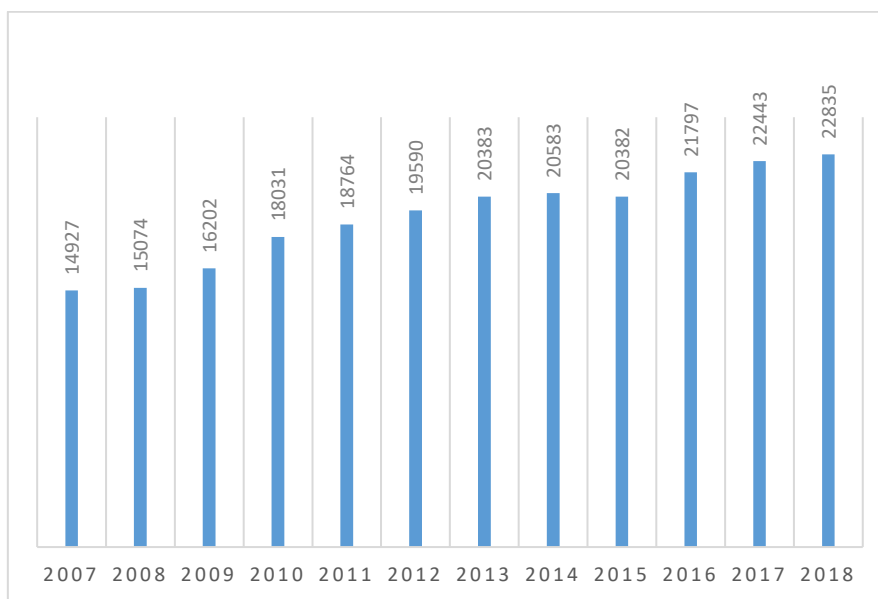
The findings indicate that the competence and quantity of human resource particularly in the science related fields are key to the national development agenda. It thus emerged that universities must train in line with the emerging need. The evidence to this effect is reflected in the national human resource development strategy 2010-2030 and the National development plan in the first and second quotes respectively.

The government economic policies require human resource development on a massive scale. Improved training and education are fundamental to higher employment, the introduction of more advanced technologies and reduced inequalities (HRDC, 2009).

Inadequate human capacity will constrain knowledge production and innovation.....increase enrolment at university by at least 70% by 2030 so that enrolment increase to about 1.62 million from 950,000 in 2010. Increase the number of students eligible to study towards maths and science based degrees to 450,000 by 2030 (NPC, 2011).

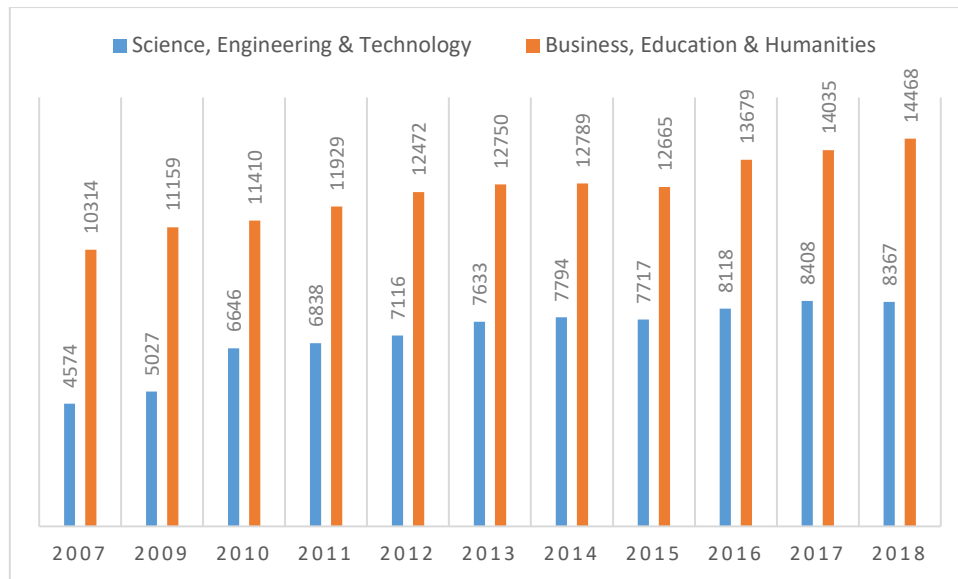
This provides evidence of the relationship between enrolment in universities like UWC and the national development targets. This relationship suggests isomorphism detailing how rules and norms in the environment come to define the behavior of institutions subjected to the same environmental conditions leading to resemblance (Lawrence & Shadman, 2008; Powell, 2007). That is UWC like other universities in South Africa must recruit students in light of national

targets and abide by specific teaching standards in order to equip students with the relevant knowledge and skills. There are two aspects, which the university has embarked on to this effect; the first is creating a pool of talented PhD achievers of the university and lobbying for more academic staff leading to a decent staff student ratio of 1:21 (UWC, 2018). The second is a focus on the recruitment of students, the figures to this effect however reflect a bit of inconsistency. Available data on the total enrolment versus enrolment by discipline provides the details to this effect in figures 5.11 and 5.12 respectively.



Source: UWC (2007-2018)

Figure 5.11: Total Student Enrolment UWC 2012-2017



Source: UWC (2007-2018)

Figure 5.12: Total Student Enrolment UWC 2012-2017 by Field of Study

The results in Figure 5.11 suggest a persistent increase in the number of enrolled students, which possibly points to the response of the University to the national enrolment targets. However, Figure 5.12 shows that the students are enrolled more in the arts than science related fields, which downplays the effort reflected in the increase in number of students in the two sectors annually. This reflects a shortfall limiting the creation of a critical mass of STEM science, technology, engineering and mathematics workers necessary for the growing knowledge society in South Africa (DHET, 2012). UWC may therefore need to draw reference from the universities doing better in adhering to national enrolment targets.

In a related development, in the quest of producing graduates competent enough to participate in the emerging democracy and global knowledge society in South Africa, the Institutional Operation Plans of the University, 2010-2014 and 2016-2020 suggest a focus on what and how learners are taught (UWC, 2009; 2016b). This is in response to the rather pre-determined mandate for universities in the country to address the mismatch between the knowledge and skills of graduates and the labour market (HRDC, 2009). Thus, UWC like all other public

universities is aiming for a graduate tailored to national labor needs as reflected in four aspects that the university is pursuing. The first is creativity in teaching and learning characterised by digital knowledge resources, building networks with the industry and community as well as student exchange programs (UWC, 2012; 2013; 2016; 2017; 2018).

The second is committing to a teaching research nexus initiated with funding research on innovative teaching and learning, an endorsement from Senate and a research-informed curriculum reform (UWC 2009; 2012; 2017). The third is multidisciplinary in teaching and research to equip learners with skills and knowledge to participate equitably and confidently in the changing knowledge-driven world (UWC, 2017). The fourth is a deliberate effort to build the competence of both staff and students in ICT (UWC, 2008; 2009; 2018). The national integrated ICT policy stipulated:

ICT will underpin the development of a dynamic and connected information society and a vibrant knowledge economy that is more inclusive and prosperous (DTPS, 2016).



Thus, it was deemed important for the graduates of the university to have the knowledge and skill to survive in the technology era (UWC, 2016). Capacity development therefore started with the staff training in eLearning to extend the effectiveness of traditional teaching practices in the university (UWC, 2018). Further efforts are reflected in boosting students ICT competence using social media and eLearning platforms like Ikamva in the teaching and learning process in the university (UWC, 2012; 2013; 2014; 2015; 2016; 2017; 2018).

Studies that have looked into teaching in the knowledge society identified a practical oriented curriculum (Alam, 2016; Beck, 2008; Mansour, 2016), inter and multidisciplinary content (Freeman, 2016) and using technology in teaching and learning as salient to preparing students for the knowledge-oriented society. Thus, the developments in the practice of teaching in the

university seem to reflect response to the rising knowledge society in South Africa. In light of the discussion, it is plausible to say that research, teaching and outreach in UWC may be fairly responding to national policy needs.

5.4 Comparative Analysis of MUK and UWC

The discussion shows both areas of commonality and divergence between MUK and UWC. That is, the analysis shows that in both universities, there is a commitment to research with an aim of generating knowledge for innovation. Knowledge is a key ingredient to knowledge societies (Gashi, 2015) thus, as public institutions, they have an obligation to produce the required knowledge for the state. Consequently, the heightened national quest to function as a knowledge society for Uganda and South Africa may explain the high rate of publications in the two universities (see Figure 5.1 & 5.8). There are two important points to note, the first is that the volume of publications differs in the two universities, in fact, UWC produces more than MUK.

The second is that the suggested high knowledge production does not tally with the rate of innovation, which is relatively fair by institutional standards but less by national standards in both institutions. That is, the over 150 innovations associated with MUK as the highest contributor in the country in a single year seems low given the national target of 6000 patents by 2040 (Nakkazi, 2019). At the same time, the latest ranking of 32 universities and research institutions shows UWC in the eighth position 18 and 12 places below the best university in research and innovation respectively (Scimago Institutions Ranking, 2020). Thus, UWC may be making a low contribution compared to other institutions towards the 24000 patents applications targeted. This implies that pressure from the environment more so from the government on public universities is sometimes unintentionally overruled by institutional reality. That is, MUK and UWC may not fully serve national policy needs due to their limited capacity to innovate.

There is also a mismatch between the actual and desired graduates in quantitative and discipline terms. Knowledge societies require a critical mass of knowledge workers with capacity to generate knowledge and innovate, which Uganda made clear in its STI policy (MFPED, 2009b) just as South Africa (DST, 2007). However, the number of students that are enrolled and graduate in both MUK and UWC is lower in the desired science related fields than the arts especially at the undergraduate level (see Figures 5.5, 5.6 & 5.12). As regards the postgraduate level, the numbers are still low in UWC but in MUK, the last three years are marked with a rise in number of entrants in the science related fields. Nevertheless, the two universities do not meet the national mark in Uganda and South Africa in both relative and absolute terms. It is possible that both institutions are choosing not to be cornered. They are pressured to fulfil the national policy need but still end up with the flow. That is, they still recruit more from the arts fields because students are more readily available in the sector. Thus, coercive and mimetic forces do not seem to be the absolute determinant of the trends in the existing academic practices of the universities.



In a related development, there seems to be a low conversion from Masters to PhD in both universities (see Figures 5.4 & 5.9). The numbers at PhD level are quite low let alone the resultant low number of graduates. The availability of human capital particularly at doctoral level is salient to a knowledge society (Neumann & Tan, 2011; Lešer, Širca, Dermol, & Trunk, 2018; Molla & Cuthbert, 2018). Thus, the developments in MUK and UWC suggests that the two universities are making a low contribution to the national quest to boost knowledge production and innovation in the country. It is also evident that environmental pressure emanating from the policy needs of the rising knowledge society is not enough to direct the path of institutional output. Hence, internal factors like enrolment patterns and faculty capacity to supervise PhDs to completion unique to each university may be the main factors at play.

There seems to be a general commitment towards institutionalising ICT however, the approach may be the point of divergence between the two universities. That is, ICT use is part of the teaching and learning process, research and knowledge transfer in the two universities. However, the underlying process to the aforementioned seems to be unique to each institution. MUK comes off as an institution taking on a new task as the process starts with basic training for staff, as for students, they are not only challenged to build the competence but also have an option of taking on programmes dedicated to ICT (see Figure 5.7). This suggests that a number of students acquire basic ICT knowledge and skills from the university, which explains the approach. The UWC process has an element of staff training which may resonate with possible members being digital migrants rather than natives but in general, both staff and students seem to be building on existing experience.

Overall, the two universities seem to be doing a good job of preparing learners for the university learning environment and the ICT driven work environment a key aspect for an emerging or established knowledge society. The comparative analysis suggests that there are more aspects of commonality than divergence between the two universities. In terms of the relation to policy needs, there are tangible contributions and steady commitment to the cause. However, the discussion also showed that there is still a lot to accomplish. Thus, given the discussion, it is plausible to say that it is to a moderate rather than a large extent that academic practices in MUK and UWC are responding to national policy needs in Uganda and South Africa respectively.

5.5 Conclusion

This chapter offers a comprehensive picture of the response of the academic profession in MUK and UWC to the policy needs of Uganda and South Africa in a twelve-year period 2007-2018. Much as the policies examined are unique to each country, they address common elements that is ICT, knowledge production, innovation and workforce development for an

emerging knowledge society, hence, offering room for the comparison. The themes that emerged from the policies were examined against secondary data from the annual reports of the two universities to establish the level of alignment in each institution to the national needs. Henceforth, from a neo institutional perspective, the statistical analysis of the existing practices in research, teaching and community outreach in the two universities points to two things. The first is that isomorphic forces are sometimes unintentionally overruled by institutional reality in shaping the response of an organisation like MUK or UWC to societal needs. Thus, the ultimate response is characterised by unique aspects for each university. That is, MUK exhibited fair progress in knowledge production for innovation yet with low progress in human resource development and ICT integration despite the commitment to the cause. UWC on the other hand exhibited good progress in knowledge production, a fair attempt at human capital development and ICT institutionalisation despite some shortfalls. A comparative analysis of the two universities therefore suggests a rather routine but fair attempt to address national targets. The study therefore concludes that MUK and UWC have possibly responded moderately to the national policy needs of the rising knowledge society in Uganda and South Africa respectively.

Chapter Six

Nature of the Academic Profession in Makerere University and the University of the Western Cape

6.1 Introduction

In this chapter, data collected by means of the self administered questionnaires is presented and results explained. Academics of Makerere University and the University of the Western Cape from eleven departments common between the two universities completed the questionnaire. The final sample size used is 153 with MUK contributing 91 academics and UWC 62 academics. This chapter has two main parts, the first focuses on the background information of the surveyed academics. The second focuses on the nature of academic research, teaching and community outreach in the two universities. In principle, this chapter addresses one subquestions of the study. That is: What is the current nature of the academic profession in MUK and UWC? In this chapter, data is presented, results are analysed and discussed. The order of presentation for the two cases under study is that MUK is handled first and UWC second after which comparison is drawn between the two. The summary of the chapter is further provided in the last part of the section.

6.2 Background Information

In this section, I descriptively examine the demographic characteristics of the surveyed academics in MUK and UWC. This description is majorly based on frequencies and percentages with specific interest in the majority for each characteristic. This is to aid identification of what constitutes the dominant figure upon which the analysis in this section is based. This study has eight background questions however only seven are reported on. This is because the question on the year of completion of academic degree/s was vaguely answered in the two universities. The characteristics reported on include sex, department, academic

qualification, academic rank, employment situation, year of appointment in the university and the number of years spent in the higher education sector. The purpose of this section is to show the profile of the academics who participated in this study in each of the two universities.

The basic characteristics of the participating academics from MUK and UWC are summarised in Table 6.1. The distribution in terms of sex indicates that majority of the academics in the surveyed departments in MUK were male as they account for 59.3% of the study participants. At the same time, majority of the academics in UWC were male as they constituted 54.8% of the total sample. The finding aligns with the evidence in literature. That is, the National Council for Higher Education (2018) shows that the national composition of academic staff in public universities in the country is dominated by the males academics. Kasule, Wesselink, Noroozi and Mulder (2015) further established the dominance of male academics in Ugandan universities. Yet Ssempebwa, Teferra and Bakkabulindi (2016) noted that there were more male than female academics in Makerere University.

Relatedly, post apartheid academia may not be as male dominated as before but it still has the males as the majority across universities (Wolhuter, 2015; Kruss, Haupt, & Visser, 2016; Wolhuter, Higgs & Higgs, 2016). Relatedly the Department of Higher Education and Training shows that there are more male than female permanently employed academic staff in South African universities (DHET, 2019). This shows that the sample used in each of the two universities could be regarded as representative.

Table 6.1: Demographic characteristics of academics of MUK and UWC

Indicator	Description	Frequency		Percentage	
		MUK	UWC	MUK	UWC
Sex	<i>Male</i>	54	34	59.3	54.8
	<i>Female</i>	37	28	40.7	45.2
Department	<i>Biotechnology</i>	10	6	11.0	9.7
	<i>Law & Jurisprudence</i>	7	4	7.7	6.5
	<i>Chemistry</i>	8	9	8.8	14.5
	<i>English</i>	8	8	8.8	12.9
	<i>Educational Studies</i>	15	2	16.5	3.2
	<i>Educational Psychology</i>	3	4	3.3	6.5
	<i>Library & Information Science</i>	8	4	8.8	6.5
	<i>Computer Science</i>	8	5	8.8	8.1
	<i>Information Systems</i>	7	5	7.7	8.1
	<i>Accounting</i>	7	11	7.7	17.7
	<i>Economics</i>	10	4	11.0	6.5
Academic qualification	<i>PhD</i>	63	44	69.2	71
	<i>Masters</i>	28	18	30.8	29
Academic rank	<i>Professor</i>	7	9	7.7	14.5
	<i>Associate professor</i>	10	11	11.0	17.7
	<i>Senior Lecturer</i>	14	14	15.4	22.6
	<i>Lecturer</i>	30	25	33.0	40.3
	<i>Assistant lecturer</i>	30	3	33.0	4.8
Employment situation	<i>Fulltime</i>	84	54	92.3	90
	<i>Part time</i>	7	4	7.7	6.7
	<i>Contract</i>		2		3.3
Appointment to higher education	<i>Before 1990</i>	8	1	9.0	1.8
	<i>1990-2006</i>	47	15	52.8	27.3
	<i>2007-2017</i>	34	39	38.2	70.9
Years of service in higher education	<i>Less than 10 years</i>	22	21	24.2	35
	<i>10-15 years</i>	27	12	29.7	20
	<i>15-20 years</i>	20	11	22.0	18.3
	<i>More than 20 years</i>	22	16	24.2	26.7

Source: Field Survey

As regards the eleven departments under study in MUK, majority of academics were from the Department of Education Studies given the 16.5% contribution to the study sample. This is followed by the Departments of Biotechnology and Economics with an 11% contribution. The Departments of Chemistry, English, Library and Information Science, Information Systems and Computer Science follow suit with an 8.8% contribution. These are followed by the Departments of Law and Jurisprudence, Accounting and Information Systems with a 7.7% contribution. The least contribution 3.3% was from the Department of Educational Psychology.

In terms of the departmental contribution to the sample in UWC, the Department of Accounting contributed the most with 17.7% of the academics. In second place is the Department of Chemistry with 14.5% of the total academics. In third place is the Department of English with 12.9%. In fourth place is the Department of Biotechnology which contributed 9.7% to the sample. In fifth place are the Departments of Computer Science and Information Systems which contributed 8.1% each. In seventh place are the Departments of Law and Jurisprudence, Education Psychology, Library and Information Science and Economics that contributed 6.5% each to the sample. The least contribution was from the Department of Education studies with 3.2% of the total academics surveyed. The point of divergence and commonality for the two universities on this aspect stems from two issues. The first is the total contribution to the study population which was more from MUK than UWC. Second is the stratification of the sample upon which departments that contributed more to the sample had more representation, this was common for both universities.

Table 6.1 further indicates that majority of the academics in the surveyed departments in MUK were PhD holders as reflected in the 69.2% contribution to the sample higher than the 30.8% for Masters holders. In UWC, majority of the academics, 71% were PhD holders and the Masters holders constitute 29% of the sample. Thus, in both MUK and UWC, majority of the academics are PhD holders which finding aligns with evidence in national reports. NCHE

(2018) shows that the number of PhD holders in universities in Uganda is on the increase. This report further shows that Makerere University has more PhD than Masters and Bachelors's holders as staff. Relatedly, DHET (2019) shows that majority of the permanently employed staff in UWC have PhDs. This possibly speaks to the academics' capacity to produce, disseminate and apply knowledge upon which a university becomes a pinnacle to the knowledge society (Altbach, 2013). Ultimately, the capacity of the two universities as salient entities to the rising knowledge societies is portrayed to this effect.

Table 6.1 further shows that majority of the academics in the surveyed departments in MUK were either at the level of Lecturer or Assistant Lecturer as shown by the 33% contribution to the sample for each of the academic ranks. In third place are Senior Lecturers with a 15.4% contribution, followed by Associate Professors 11% and Professors are the least in number as reflected in the 7.7% contribution. In UWC, majority of the academics, 40.3% are at the rank of Lecturer. Academics at the rank of Senior Lecturer constitute 22.6% of the sample, hence take second place. In third place are academics at the rank of Associate Professor constituting 17.7%, in fourth place are Professors contributing 14.5% and Assistant Lecturers constituted the least among surveyed academics with 4.8%.

The point of divergence for the two universities is the rank of Assistant Lecturer which ranked number one in MUK and last in UWC. However it is important to note that in MUK, assistant lecturers are PhD fellows (Ddumba-Ssetamu, 2017) and others are PhD holders with a delayed appointment to lecturer level. Thus, some assistant lecturers in MUK may be representing higher academic ranks contrary to UWC. Nevertheless, the two samples are more similar than different as in both universities, majority of the academics are at the level of Lecturer and the number of academics reduces with seniority in rank.

Table 6.1 further shows that majority of the academics in MUK were serving as fulltime employees as they made up 92.3% of the total sample. At the same time, all participating academics fit in the study period of 2007-2017 as 52.8% joined the higher education sector between 1990-2006, 38.2% joined between 2007-2017 and 9% joined before 1990. Relatedly, 75.9% of the academics have served for more than ten years hence, those who had less than ten years of service made up just 24.2% of the total sample.

As regards the employment situation of the academics in UWC, majority of them were fulltime employees as they constituted 90% of the total sample. Academics employed on part time basis constituted 6.7% and those on contract were the least with a 3.3% contribution to the sample. At the same time, all surveyed academics fit into the study period as 70.9% were appointed in the higher education sector between 2007-2017. Other academics including 27.3% were appointed between 1990-2006 and 1.8% were appointed before 1990. Relatedly, majority of the academics have served for ten or more years as they accounted for 65% of the total respondents. Academics that have served for less than 10 years only constituted 35% of the total sample. Of the three aspects, employment situation, appointment to higher education and years of service, the two samples have common features in all but employment situation where UWC has contract academics contrary to MUK.

6.3 Nature of Research, Teaching and Community Outreach in MUK and UWC

In this section, I descriptively examine the data collected under academic research, teaching and community outreach. This data emerged from both nominal and ordinal questions under each practice. Data from the nominal questions is presented in graphic form. Data from the ordinal questions is presented in tabular form. The analysis of results follows suit. The analysis in this section is done to show the state of the art of each of the academic profession in the two universities. Thus, I use percentages generated from academics ratings on each item under a given practice to determine the areas of focus of the academics. Key to note is that the

questionnaire is based on a five point likert scale. However, I report on three aspects, the sum of the percentage of academics ratings low on the scale, the sum of the percentage high on scale and the mid percentage on the scale. This is due to the interest in the “majority” as a criteria for determining academics interest in each item under each practice.

That is, if the five point likert scale is ordered as: strongly disagree, disagree, neutral, agree and strongly agree, strongly disagree and disagree rate low on the scale, agree and strongly agree rate high on the scale. If the neutral value is added to either side, the original dominant rating remains in the lead. Contrary to this assumption, I report on the neutral value as an independent and moderating entity for each item. To this end, though the full details of academics’ ratings on research activities are presented under each practice, I report on the summary of the results on a given construct. The analysis of results in this section follows the comparison of results of each element under a construct.

6.3.1 Research

The ratings on research activities in MUK and UWC are presented in two forms, the activities reflected in the nominal questions are presented in Figures 6.1, 6.2 and 6.3. The activities reflected in the ranked questions are presented in Table 6.2 and 6.3. Table 6.2 presents the full details of the percentages of academics’ ratings on the research activities based on the five point likert scale. Table 6.3 presents the summary of results presented in Table 6.2. The presentation and analysis of results in this section is based on Table 6.3. The 16 items under the five likertscaled questions of the construct in MUK and UWC were considered for this analysis. This presentation and analysis is on six areas: research approach, contribution to the science community, collaboration, scholarly contribution, fundraising and the teaching research nexus.

6.3.1.1 Research Approach

In this section, two aspects are reported on, the involvement in research and its basic characteristics. In order to get a comparative picture on the two aspects, percentages arising from the frequency of participation are compared between the academics of MUK and UWC. Figure 6.1 shows that 91% of the surveyed academics in MUK acknowledged involvement in research in either 2017 or 2018 contrary to 8.8% of the total respondents. At the same time, Figure 6.1 shows that 88.7% of the surveyed academics affirmed involvement in research while 11.3% did not. This implies that majority of the academics in MUK and UWC were engaged in research in either 2017 or 2018 when the data was collected. The results are consistent with the assumption that research is a key component of academic work in the two universities. Hence it is likely that the state that research is in for the two universities has a lot to do with choices academics make about it.

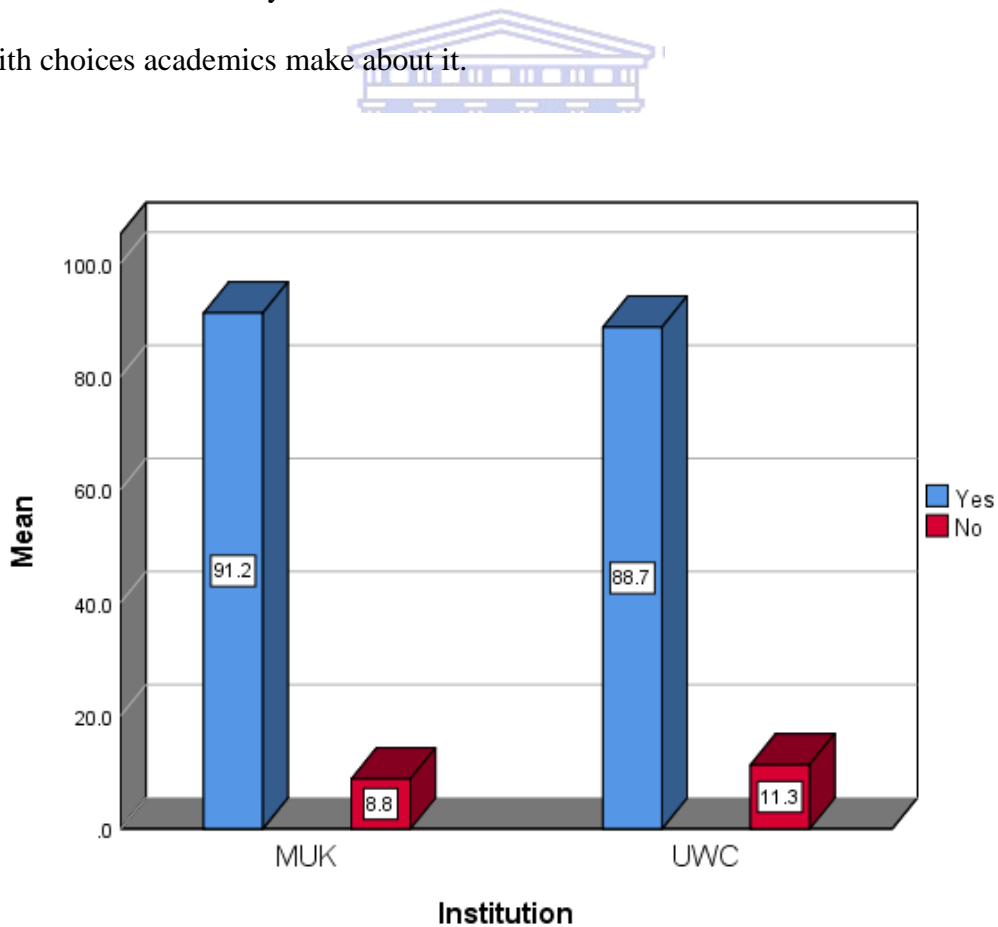


Figure 6.1: Academics involvement in research in MUK and UWC

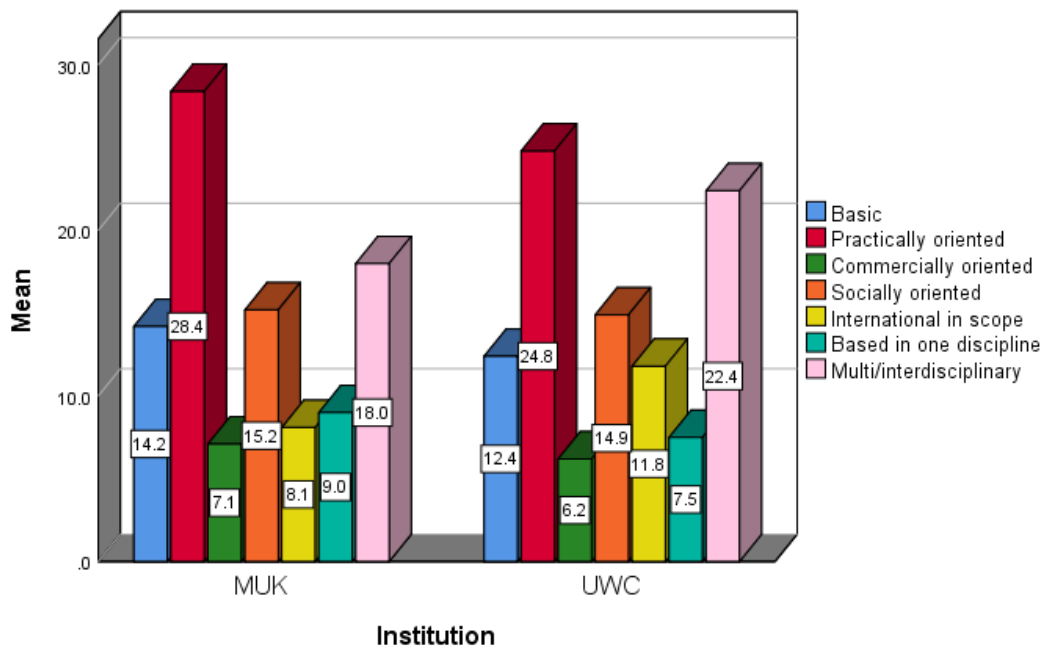


Figure 6.2: Features of Research in MUK and UWC

Figure 6.2 shows that research in the two universities majorly exhibits four common features. That is, it is practically oriented 28.4% and 24.8%; it is multi/interdisciplinary 18% and 22.4%; it is socially oriented 15.2% and 14.9% and basic 14.2% and 12.4% for MUK and UWC respectively. At the same time, 9% and 8.1% of the academics in MUK identified their research as single discipline based and international in scope for the features to take the fifth and six spots respectively. However, on the same items in UWC, the international scope of research (11.8%) came in fifth and its single discipline status (7.5%) came in sixth. Yet in both universities, research is least identified as commercially oriented by 7.1% and 6.2% of academics in MUK and UWC respectively. The results in this description are consistent with three assumptions.

The first is that academic research in both universities is majorly applied in nature. However, the basic element still claims a spot in the research agenda given that it is fourth in popularity in both universities. The second is that research in MUK may not be as internationally focused

as that in UWC because of the difference in level of development between Uganda and South Africa. Uganda's economy is majorly agricultural (NPA, 2015; 2018) and South Africa's economy is industrial (IDC, 2017; NPC, 2012) hence, the levels of exposure and focus may be different for academics in the two nations. The third is that there are low levels of commercialisation of research in both universities given that this item was the least popular in both universities. Overall, research in the two universities exhibits bias towards application compared to fundamental research. The results are consistent with the empirical findings in Gibbons et al (2011) and Martin (2011) and Milsom (2014) and Chen (2016) that observed the growing focus on the production of application oriented knowledge in contemporary academia.

6.3.1.2 *Contribution to the Science Community*

The ratings on the contribution to the science community by academics of MUK and UWC are presented in Tables 6.2 and 6.3. This element has four items based on a five point likert scale ordered as: Not at all, a little, relative, many times and very many times. While “not at all” and “a little” rank low on the scale, “many times” and “very many times” rank high on the scale. The neutral value stands as an independent and “moderating” figure on the scale. Thus, in this section, I report on three aspects: low, moderate and high. For each item, interest is on where majority academics lie on the scale. This is the basis for identifying academics contribution to the science community from each item and ultimately the nature of research in the two universities. Table 6.3 gives the details to this effect.

Table 6.2: Rating of Research Activities by Academics of MUK and UWC

Indicator	Contribution to the science community									
	Not at all (%)		A little (%)		Relatively (%)		Many times (%)		Very many times (%)	
	MUK	UWC	MUK	UWC	MUK	UWC	MUK	UWC	MUK	UWC
<i>Served as a member of a national/international scientific committee/board/bodies</i>	38.9	49.2	14.4	4.9	14.4	14.8	15.6	18	16.7	13.1
<i>Served as a peer reviewer</i>	36.3	27.4	19.8	8.1	5.5	11.3	22	27.4	16.5	25.8
<i>Served as an editor of a journal/book series</i>	51.6	64.5	16.5	9.7	8.8	9.7	14.3	9.7	8.8	6.5
<i>Served as an elected officer or leader in a professional/academic association</i>	30.8	59.3	18.7	10.2	11	11.9	18.7	10.2	20.9	8.5

Research collaboration

Indicator	Strongly Disagree (%)		Disagree (%)		Neutral (%)		Agree (%)		Strongly agree (%)	
	MUK	UWC	MUK	UWC	MUK	UWC	MUK	UWC	MUK	UWC
<i>Collaboration with junior academics</i>	14.4	18	5.6	4.9	6.7	19.7	45.6	26.2	27.8	31.1
<i>Collaboration with researchers in local institutions</i>	6.6	11.7	12.1	6.7	13.2	23.3	42.9	30	25.3	28.3
<i>Collaboration with international colleagues</i>	5.5	28.3	12.1	10	12.1	15	37.4	26.7	33	20
<i>Collaboration with scholars/researchers outside my discipline</i>	7.7	21.3	11	16.4	19.8	18	35.2	26.2	26.4	18

Scholarly contribution

Indicator	Very low (%)		Low (%)		Moderate (%)		High (%)		Very High (%)	
<i>Scholarly books authored or co-authored</i>	39.6	67.2	15.4	6.9	16.5	12.1	13.2	8.6	15.4	5.2
<i>Articles published in an academic book or journal</i>	17.6	23	11	14.8	18.7	23	26.4	18	26.4	21.3
<i>Discussion paper, report/monograph written for a funded project</i>	17.8	58.3	10	13.3	24.4	20	31.1	5	16.7	3.3
<i>Papers presented at a scholarly conference</i>	12.2	23	16.7	6.6	15.6	24.6	23.3	24.6	32.2	21.3
<i>Completed doctoral dissertations supervised</i>	34.4	45	11.1	10	10	20	17.8	16.7	26.7	8.3
<i>Patent/license secured or on a process of invention</i>	67	95	11.4	1.7	9.1	3.3	8	0	4.5	0
Fundraising										
<i>Raising funds for the department and university at large</i>	18.7	40.7	14.3	13.6	22	18.6	31.9	16.9	13.2	10.2
<i>Complying to guidelines set by research funders</i>	8.8	18.6	13.2	3.4	17.6	22	27.5	28.2	33	27.1

Source: Field Survey

Table 6.3: Summary of the Rating of Research Activities by Academics of MUK and UWC

Contribution to the science community

Indicator	Low (%)		Moderate (%)		High (%)		Majority (%)	
	MUK	UWC	MUK	UWC	MUK	UWC	MUK	UWC
<i>Served as a member of a national/international scientific committee/board/bodies</i>	53.3	54.1	14.4	14.8	32.3	31.1	<i>Low</i>	<i>Low</i>
<i>Served as a peer reviewer</i>	56.1	35.5	5.5	11.3	38.5	53.2	<i>Low</i>	<i>High</i>
<i>Served as an editor of a journal/book series</i>	68.1	74.2	8.8	9.7	23.1	16.2	<i>Low</i>	<i>Low</i>
<i>Served as an elected officer or leader in a professional/academic association</i>	49.5	69.5	11	11.9	39.6	18.7	<i>Low</i>	<i>Low</i>

Research collaboration

<i>Collaboration with junior academics</i>	20	22.9	6.7	19.7	73.4	57.3	<i>High</i>	<i>High</i>
<i>Collaboration with researchers at institutions in the country</i>	18.7	18.4	13.2	23.3	68.2	58.3	<i>High</i>	<i>High</i>
<i>Collaboration with international colleagues</i>	17.6	38.3	12.1	15	70.4	46.7	<i>High</i>	<i>High</i>
<i>Collaboration with scholars/researchers outside my discipline</i>	18.7	37.7	19.8	18	61.6	44.2	<i>High</i>	<i>High</i>

Scholarly contribution

<i>Scholarly books authored or co-authored</i>	55	74.1	16.5	12.1	28.6	13.8	<i>Low</i>	<i>Low</i>
<i>Articles published in an academic book or journal</i>	28.6	37.8	18.7	23	52.8	39.3	<i>High</i>	<i>High</i>
<i>Discussion paper, report/monograph written for a funded project</i>	27.8	71.6	24.4	20	47.8	8.3	<i>High</i>	<i>Low</i>

<i>Papers presented at a scholarly conference</i>	28.9	29.6	15.6	24.6	55.5	45.9	<i>High</i>	<i>High</i>
<i>Completed doctoral dissertations supervised</i>	45.5	55	10	20	44.5	25	<i>Low</i>	<i>Low</i>
<i>Patent/license secured or on a process of invention</i>	78.4	96.7	9.1	3.3	12.5	0	<i>Low</i>	<i>Low</i>
Fundraising								
<i>Raising funds for the department and university at large</i>	33	54.3	22	18.6	45.1	27.1	<i>High</i>	<i>Low</i>
<i>Complying to guidelines set by research funders</i>	22	22	17.6	22	60.5	55.3	<i>High</i>	<i>High</i>

Source: Field Survey



That is, Table 6.3 shows that majority of the academics in both universities rated themselves low in all items but “serving as a peer reviewer” for UWC. In MUK this is distributed as follows: serving as a member of any national or international academic body, 53.3% rated themselves low, 32.3% rated themselves high and 14.4% categorised their service as relative. In terms of serving as a peer reviewer, 52.8% of the academics rated themselves low about the issue, 38.5% of the academics rated themselves high and 5.5% rated their participation relative. In terms of serving as an editor of a journal or a book, 68.1% of the academics rated themselves low on the aspect, 23.1% rated themselves high and 8.8% of them categorised their service as relative. When it comes to serving as an elected officer in an academic association, 49.5% of the academics rated themselves low on the issue, 39.6% rated themselves high and 11% rated their service as relative.

In UWC, the percentages of academics ratings are distributed as follows: serving as a member of a scientific committee, 54.1% rated themselves low, 31.1% rated themselves high and 14.8% categorised their service relative. In terms of serving as a peer reviewer, 35.5% of the academics rated themselves low on the issue, 52.9% rated themselves high and 11.3% rated their service as relative. As regards serving as an editor of a journal or book series 74.2% of the academics rated themselves low on the subject, 16.2% rated themselves high and 9.7% rated their service as relative. In terms of serving as an elected officer in an academic association, 69.5% of the academics rated themselves low on the issue, 18.7% rated themselves high and 11.9% rated their service as relative.

The results on this element point to two assumptions. The first is that academics in both universities have little exposure beyond individual research activities. This is consistent with the low participation in national or international scientific bodies. Second is that academics in UWC are doing slightly better than their counterparts in MUK in serving the science

community due to the interest showed in peer review. However, overall, majority of the academics in the two universities may be contributing little to the science community.

6.3.1.3 Collaboration

The element of collaboration has four items. The items are measured by a five point likert scale ordered as: strongly disagree, disagree, neutral, agree and strongly agree. While “strongly disagree” and “disagree” rate low on the scale, “agree” and “strongly agree” rate high on scale. The neutral value stands as an independent and “moderating” figure on the scale. Thus, I report on three aspects: low, moderate and high. For each item, interest is on where majority academics lie on the scale as a basis for identifying academics interest in collaboration for each item. This is to contribute to determining the features of research and ultimately its nature in the two universities. Table 6.3 presents the details to this effect.

Table 6.3 shows that majority of the academics in both universities rated themselves high in all aspects on collaboration. This is distributed as follows in MUK; 20% of the academics rated themselves low on collaborating with junior academics, 73.4% rated themselves high and 6.7% took a neutral stand. At the same time, 18.7% of the academics rated themselves low on local collaboration, 68.2% rated themselves high and 13.2% took a neutral stand on the subject. In terms of international collaborations, 17.6% rated themselves low on the aspect, 70.4% rated themselves high and 12.1% took a neutral stand. As regards multi/inter discipline collaboration, 18.7% of the academics rated themselves low on the subject, 61.6% rated themselves high and 19.8% took a neutral stand.

The description of academics’ percentage ratings of collaboration are as follows in UWC: 22.9% of the academics rated themselves low on collaborating with junior academics. At the same time, 57.3% rated themselves high and 9.7% took a neutral stand. As regards local collaboration, 18.4% of the academics rated themselves low on the issue, 58.3% rated

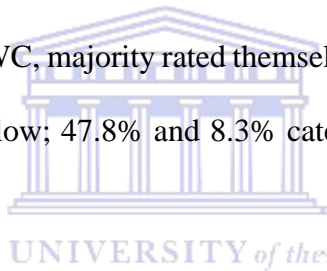
themselves high and 23.3% took a neutral stand. In terms of international collaboration, 38.3% of the academics rated themselves low on the subject. At the same time, 46.7% of the academics rated themselves high while 15% took a neutral stand. As regards inter discipline collaboration, 37.7% of the academics rated themselves low on the issue, 44.2% rated themselves high and 18% took a neutral stand.

The results suggest high levels of local, international and interdisciplinary collaborations among academics of both universities. Thus, collaboration may be a key feature of academic research in MUK and UWC. This finding corroborates with the findings of Talab, Scholten and van Beers (2020) that discovered high levels of knowledge collaboration among universities studied. Shin et al (2013) also established high levels of collaboration among academics though those in developed systems were more collaborative than their counterparts in developing systems. Other studies contextualised in Africa including Chikozho and Saruchera (2015) established the existence of progressive collaboration among most think tanks, departments and individuals in universities in South Africa. Yet Ishengoma (2016) attests to the existence of North-South research collaborations in Uganda.

6.3.1.4 Scholarly Contributions

The element of scholarly contributions has six items common between MUK and UWC. The items are based on a five point likert scale ordered as: very low, low, moderate, high and very high. While “very low” and “low” rank low on the scale, “high” and “very high” rank high on the scale. The neutral value is considered as an independent and “moderating” entity on the scale. Thus, I report on three aspects: low, moderate and high. For each item, interest is on where majority academics lie on the scale as a basis for identifying academics scholarly contributions through each item. This is to contribute to determining the basic features of research in the two universities and ultimately its nature. Table 6.3 presents details to this effect.

Table 6.3 shows that majority of the academics in MUK rated themselves high in three out of the six items. At the same time, majority of the academics in UWC rated themselves high in two out of the six items. The details to this effect are respectively distributed between MUK and UWC as follows: in terms authoring/coauthoring or editing/coediting books, majority of the academics in both universities rated themselves low on the subject. That is, 55% and 74.1% indicated a low contribution; 28.6% and 13.8% indicated a high contribution and 16.5% and 12.1% categorised the contribution as moderate. In terms of publishing articles in a book or journal, majority of the academics in both universities rated themselves high on the subject. That is, 28.6% and 37.8% indicated a low contribution; 52.8% and 39.3% indicated a high contribution and 18.7% and 23% categorised the contribution as moderate. In terms of discussion papers or reports written for a funded project, majority of the academics in MUK rated themselves high while in UWC, majority rated themselves low. That is, 27.8% and 71.6% categorised their contribution as low; 47.8% and 8.3% categorised it as high and 24.4% and 20% categorised it as moderate.



As regards papers presented at scholarly conferences, majority of the academics in both universities rated themselves high on the subject. That is, 28.9% and 29.6% rated themselves low; 55.5% and 45.9% rated themselves high and 15.6% and 24.6% categorised the contribution as moderate. In terms of supervising doctoral dissertations to completion, majority of the academics in both universities rated themselves low on the subject. That is, 45.5% and 55% rated themselves low on the activity, 44.5% and 25% rated themselves high and 10% and 20% categorised the contribution as moderate. In terms of securing patent/s, majority of the academics in both universities rated themselves low on the subject. That is, 78.4% and 96.7% rated themselves low on the activity; 12.5% and 0% rated themselves high and 9.1% and 3.3% rated themselves as moderate contributors.

The results on scholarly contribution point to three preliminary conclusions. The first is that MUK is doing better than UWC in making scholarly contributions. Its areas of strength are publishing articles in academic books or journals, writing discussion papers, reports or monographs and presenting papers at conferences. UWC on the other hand only has strength in presenting papers at scholarly conferences and publishing articles in books or journals. The second is that academics in both universities rarely author/coauthor or edit/coedit scholarly book. At the same time, they rarely supervise PhD dissertations to completion. The third is that there are low levels of innovation among academics in both universities. This is consistent with the high numbers of academics without or in the process of securing patent/s.

6.3.1.5 Fundraising

This element has two items common between the two universities. It is based on a five point likert scale with details presented in Table 6.2. However the presentation in this section is based on the summary in Table 6.3.

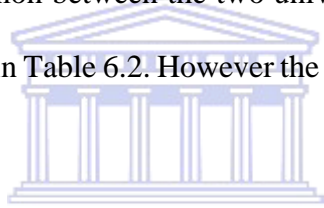


Table 6.3 shows that majority of the academics in MUK rated themselves high on the two items while academics in UWC rated themselves high in just one of the items. The details to this effect are as follows: in terms of the suggestion that academics are expected to raise funds for the department through research, majority of the academics in MUK rated the suggestion high and their counterparts in UWC rated it low. That is, 33% and 54.3% disagreed with the suggestion; 45.1% and 27.1% agreed with it and 22% and 18.6% took a neutral stand. In terms of complying with guidelines set by research funders, majority of the academics in both universities rated the idea high. That is, 22% and 22% disagreed with the idea, 60.5% and 55.3% agreed with it and 17.6% and 22% took a neutral stand.

The results in this section are consistent with two assumptions. The first is that academics in MUK feel obligated to generate funds for the department. Yet fundraising in UWC may be

more of a personal rather than a departmental agenda. The second is that the research agenda may be dictated by funders for majority of the academics in the two universities.

6.3.1.6 Teaching research nexus

This element is presented in Figure 6.3. The presentation and analysis of results in this section is based on percentages generated from the frequency of academics interest in in research or teaching or both.

Figure 6.3 shows that although majority of the academics in MUK do both teaching and research, they are biased to research, these constitute 49.4%. In second place are academics who do both teaching and research but are more biased towards teaching, they constitute 34.8% of the total respondents. In third place are academics that do teaching only constituting 10.1% and in fourth place are academics that do only research who constitute 5.6%.

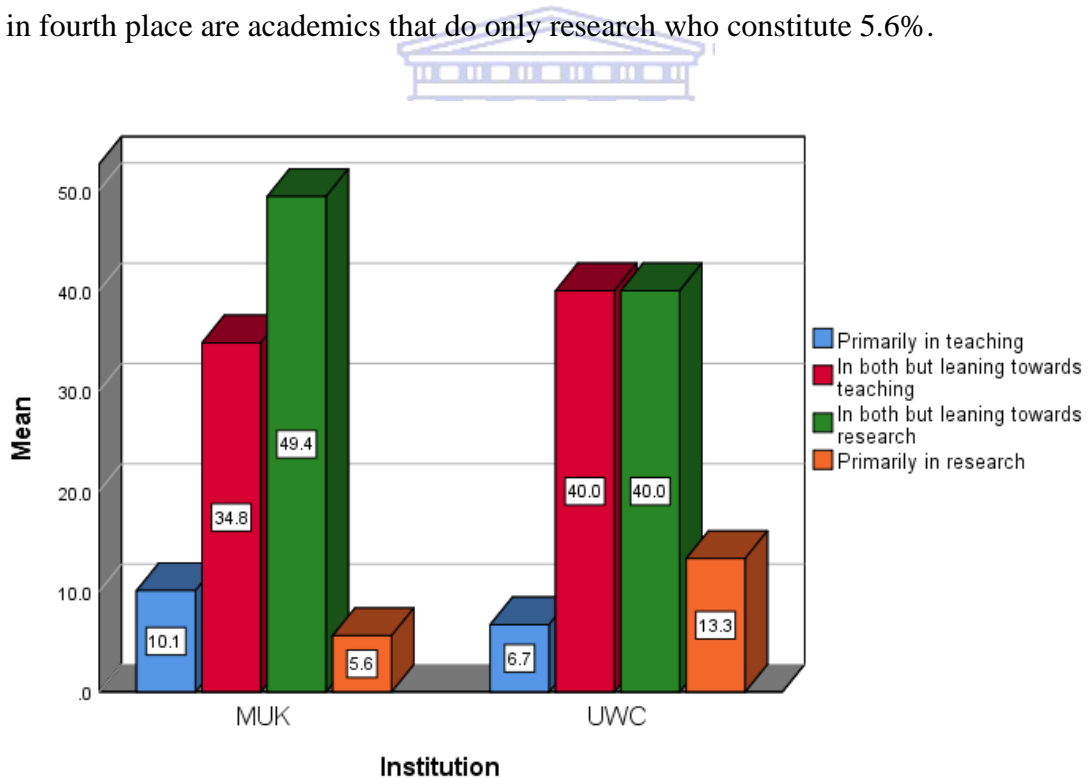


Figure 6.3: Teaching Research nexus in MUK and UWC

Figure 6.3 further shows that 40% of the surveyed academics in UWC have interest in both teaching and research but with leaning towards research just as those interested in both

activities but with leaning towards teaching. Other academics, that is 13.3% have interest in research and 6.7% have interest solely in teaching.

The results on the teaching research nexus suggest a prevalence of a teaching research nexus for majority of academics in both institutions though leaning may be more towards research. This finding corroborates with the findings of Mägi and Beerkens (2016) who established a teaching research nexus with bias on research given the pressure for knowledge production in contemporary institutions. Turk and Ledić (2016) also discovered that academics are less interested in teaching and thus inclined more towards research despite acknowledging the connection and practice of both components of academic work. Hence, the teaching research nexus may be an emerging trend in the two universities.

6.3.1.7 Comparative Summary of the Features of Research in MUK and UWC

There seems to be more points of commonality than divergence between MUK and UWC on the subject research. That is, the practice seems to be a key component of academic work in both universities.

- Research in the two universities exhibits bias towards application compared to fundamental research. This however seems to contradict results from the same academics that claim to make a high contribution to peer reviewed publications. Thus, there may be a subtle balance between basic and applied research in the two universities.
- Collaboration may be a key feature of academic research in both universities given the high levels of local, international and multi/interdisciplinary collaborations among majority academics.

- There are low levels of innovation among academics in both universities. This is consistent with the high numbers of academics without or in the process of securing patent/s.
- There is a likelihood of teaching research nexus for majority of academics in both institutions though leaning may be more towards research.
- Majority of the academics in the two universities may be contributing little to the science community. This is consistent with the low participation in national or international scientific bodies.
- The research agenda may be dictated by funders for majority of the academics in the two universities.
- Scholarly contributions specific to authoring/coauthoring or editing/coediting scholarly books and supervising PhD dissertations to completion are limited among majority academics of both universities.
- On the other hand, there is a difference in level of scholarly contributions. That is, MUK may be contributing more scholarly work than UWC even though academics also claim to be more biased towards applied research. This is specific to areas of publishing articles in academic books or journals, writing discussion papers, reports or monographs and presenting papers at conferences. UWC on the other hand seems to contribute only the areas of presenting papers at scholarly conferences and publishing articles in books or journals.
- Academics in UWC may be contributing to the science community slightly better than their counterparts in MUK due to the interest showed in peer review
- While academics in MUK may feel obligated to generate funds for the department they serve, fundraising in UWC seems to be more of a personal rather than a departmental agenda.

6.3.2 Teaching

The rating of the teaching activities in MUK and UWC is presented in two forms. The aspects reflected in the three nominal questions are presented in Figures 6.4, 6.5 and 6.6. the activities reflected in the ranked questions are presented in Table 6.4 and 6.5. Table 6.4 presents the details in percentage of the academics's rating of each item under the construct based on the five point likert scale. Table 6.5 presents the summary of results which are used in the analysis of this construct. The 12 and 11 questions for MUK and UWC respectively identified as contributors to the internal consistency of the construct were used in this analysis. This section covers three aspects: nature of teaching, institutional load targets and teaching enhancement.

6.3.2.1 *Approach to Teaching*

In this section, three aspects are covered: academics' involvement in teaching, teaching load and the features of teaching styles. In order to get a comparative picture of the three aspects, percentages were generated for each item in each university. Figures 6.4, 6.5 and 6.6 present the details to this effect. In terms of the involvement in teaching, Figure 6.4 shows that majority of the academics in both universities that is, 94.5% and 91.9% in MUK and UWC respectively were involved in teaching at the time of data collection in 2018. This suggests that teaching is a major component of academic work in both universities.

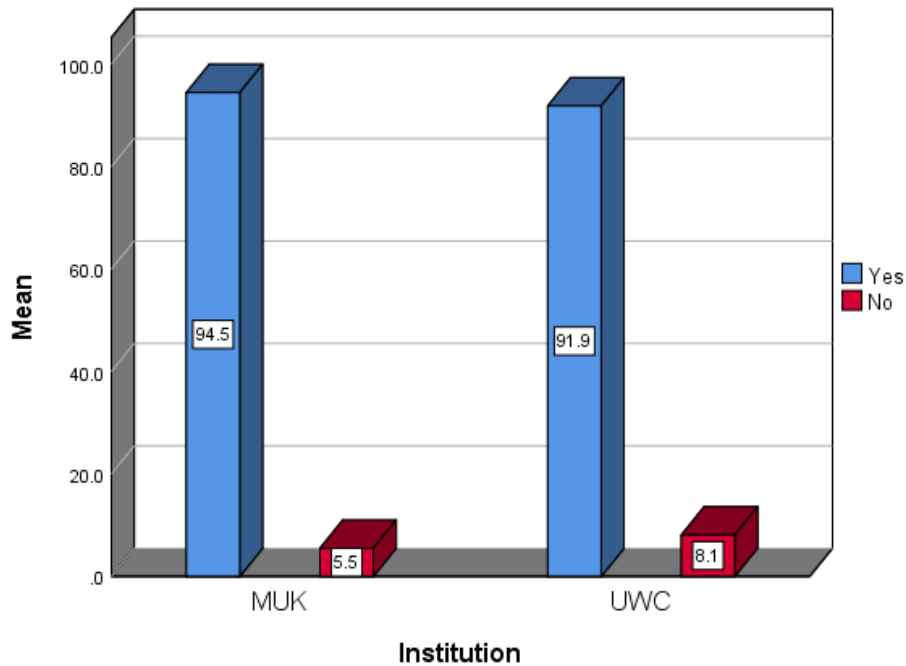


Figure 6.4: Academics' Involvement in Teaching in MUK and UWC

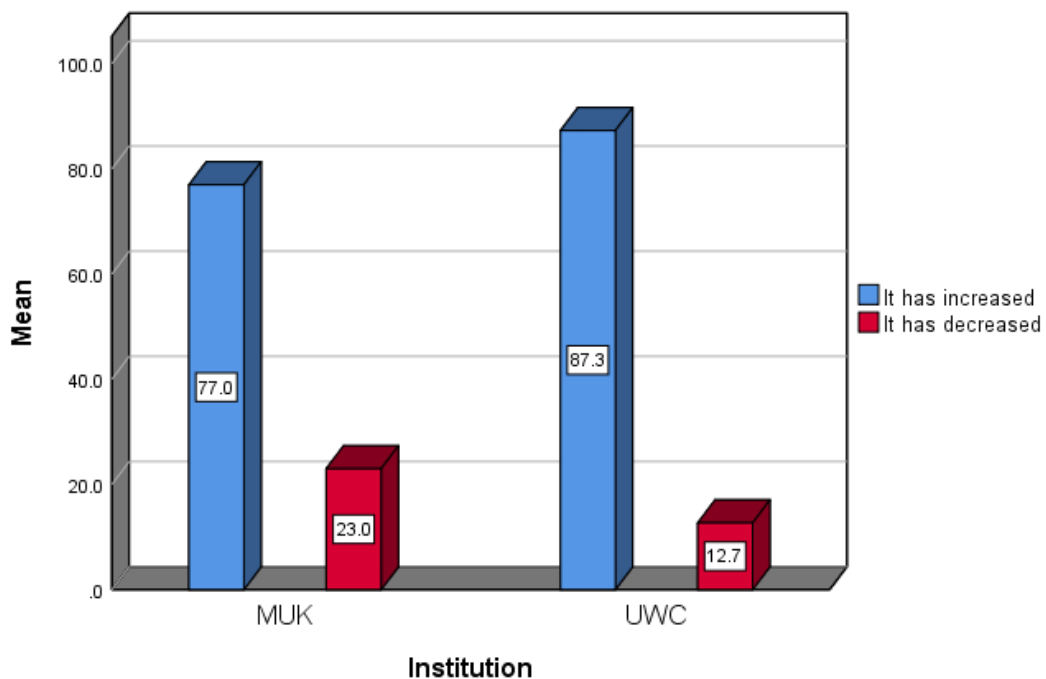


Figure 6.5: Academics' Teaching Load in MUK and UWC

In terms of the teaching load, Figure 6.5 shows that 77% of the academics in MUK indicated an increase in the teaching load and 23% indicated a decrease. Figure 6.5 further shows that 87.3% of the surveyed academics in UWC indicated an increase in the teaching load contrary

to 12.7% of the respondents. This implies that majority of the academics in both universities have a heavy teaching load. This finding is in agreement with the findings of Wolhuter (2015) a study on the academic profession in South Africa that established the existence of a heavy teaching load among academics in the researched universities in the country. Relatedly, NCHE (2019) indicates heavy teaching load across higher education institutions in Uganda universities inclusive. Hence, heavy teaching loads seem to be a common phenomenon in both universities.

In terms of the features of the teaching styles, Figure 6.6 shows that there are three leading features common between the two universities. That is, classroom instruction 22.1% and 24.6%; development of course material 17.3% and 21.1%; programme development 17.3% and 16.7% in MUK and UWC respectively. These features are all teacher focused which suggests inclination to the teacher centred approaches in the teaching and learning process. The key feature for the rest of the rest of the items is that they are student focused. However, while distance learning is the least popular in both universities, the level of popularity varies among the rest of the items. That is in MUK, learning in projects leads in popularity with 13.3% of the total respondents. This is followed by individualised instruction (10.5%); ICT based instruction (7.9%); practice instruction (7.1%) and distance learning (4.5%).

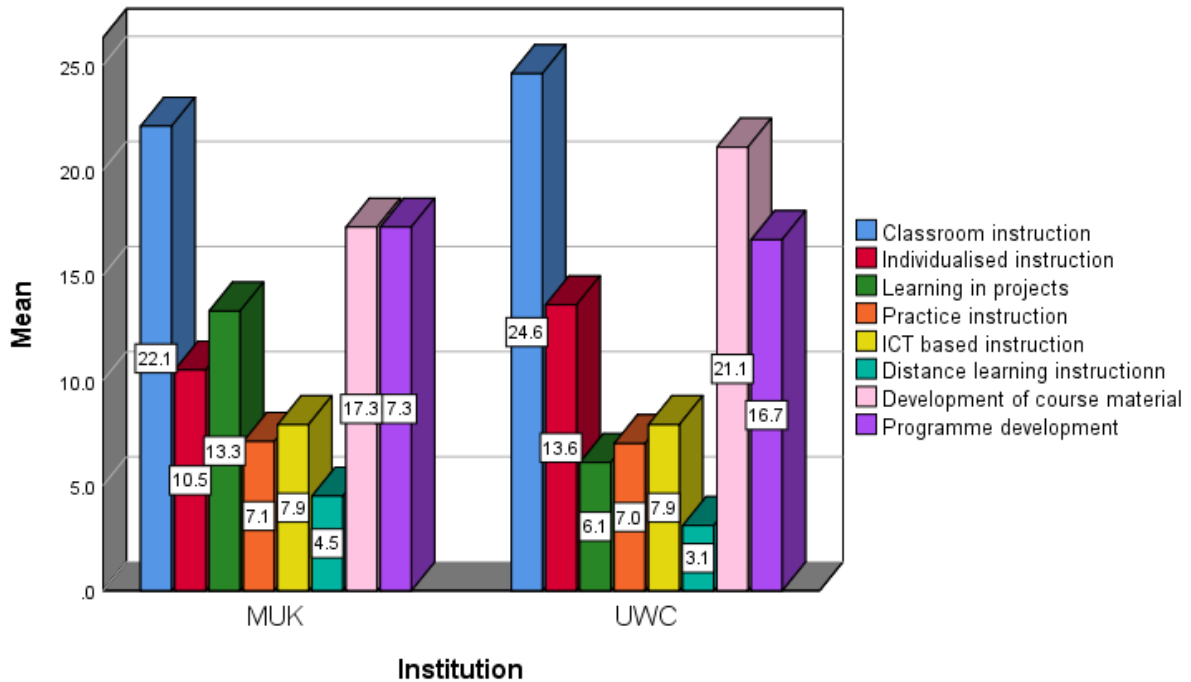


Figure 6.6: Features of Teaching Styles in MUK and UWC

In UWC, individualised instruction leads with 13.6%. This is followed by ICT based instruction (7.9%); practice based instruction (7%); learning in projects (6.1%) and distance learning (3.1%). The results in this sub section are consistent with the assumption that teacher centered approaches still have a strong bearing on the teaching and learning process in the two universities though academics seem to have embraced the learner center approaches as well.

Table 6.4: Rating of Teaching Activities by Academics of MUK and UWC

Indicator	Institutional load targets									
	Strongly disagree (%)		Disagree (%)		Undecided (%)		Agree (%)		Strongly agree (%)	
	MUK	UWC	MUK	UWC	MUK	UWC	MUK	UWC	MUK	UWC
<i>Number of hours in the classroom</i>	7.7	15.8	8.8	14	11	19.3	29.7	21.1	42.9	29.8
<i>Number of students in class</i>	19.8	25	11	19.6	18.7	21.4	31.9	14.3	18.7	19.6
<i>Number of masters students for supervision</i>	7.7	26.9	10	17.3	20	32.7	37.8	13.5	24.4	9.6
<i>Number of doctoral students for supervision</i>	12.2	25.5	7.8	16.4	24.4	30.9	35.6	16.4	20	10.9
<i>Time for students' consultation</i>	23.1	17.2	16.5	12.1	25.3	20.7	20.9	25.9	14.3	24.1
<i>Hours to be present at the institution</i>	19.8	10.5	11	15.8	15.4	24.6	29.7	24.6	24.2	24.6
Teaching enhancement										
<i>Instructional skills improved in response to evaluation</i>	5.5	8.3	13.2	6.7	17.6	18.3	47.3	31.7	16.5	35
<i>There are adequate training courses for enhancing teaching quality</i>	17.6	11.5	30.8	11.5	20.9	16.4	24.2	31.1	6.6	29.5
<i>Practically oriented knowledge and skills are emphasized in your teaching</i>	1.1	3.3	7.7	3.3	14.3	13.3	50.5	30	26.4	50
<i>Emphasis is put on international perspectives</i>	4.4	8.3	5.5	6.7	16.5	16.7	47.3	35	26.4	33.3
<i>Your research activities reinforce your teaching</i>	2.2	6.7	2.2	6.7	9.9	10	42.9	40	42.9	36.7
<i>Community outreach reinforces your teaching</i>	6.6	23	8.8	18	19.8	21.3	36.3	16.4	28.6	21.3

<i>Curriculum review reflects adjustment to meet societal needs</i>	1.1	5	9.9	6.7	20.9	21.7	36.3	43.3	31.9	23.3
---	-----	---	-----	-----	------	------	------	------	------	------

Source: Field Survey



UNIVERSITY *of the*
WESTERN CAPE

Table 6.5: Summary of the Rating of Teaching Activities by Academics of MUK and UWC

Indicator	Institutional load targets							
	Low (%)		Moderate (%)		High (%)		Majority (%)	
	MUK	UWC	MUK	UWC	MUK	UWC	MUK	UWC
<i>Number of hours in the classroom</i>	16.5	29.8	11	19.3	72.6	50.9	High	High
<i>Number of students in class</i>	30.8	44.6	18.7	21.4	50.6	33.9	High	Low
<i>Number of masters students for supervision</i>	17.7	44.2	20	32.7	62.2	23.1	High	Low
<i>Number of doctoral students for supervision</i>	20	41.9	24.4	30.9	55.6	27.3	High	Low
<i>Time for students' consultation</i>	39.6	29.3	25.3	20.7	35.2	50	Low	High
<i>Hours to be present at the institution</i>	30.8	26.3	15.4	24.6	53.9	49.2	High	High
	Teaching enhancement							
<i>Instructional skills improved in response to evaluation</i>	18.7	15	17.6	18.3	63.8	66.7	High	High
<i>There are adequate training courses for enhancing teaching quality</i>	48.4	23	20.9	16.4	30.8	60.6	Low	High
<i>Practically oriented knowledge and skills are emphasized in teaching</i>	8.8	6.6	14.3	13.3	76.9	80	High	High
<i>Emphasis is put on international perspectives</i>	9.9	15	16.5	16.7	73.7	68.3	High	High
<i>Your research activities reinforce your teaching</i>	4.4	13.4	9.9	10	85.8	76.7	High	High
<i>Community outreach reinforces your teaching</i>	15.4	41	19.8	21.3	61.9	37.7	High	Low
<i>Curriculum review reflects adjustment to meet societal needs</i>	11	11.7	20.9	21.7	68.2	66.6	High	High

6.3.2.2 *Institutional Load Targets*

The presentatin and analysis in this section is based on the six items. This element is based on a five point likert ordered as: strongly disagree, disagree, undecided, agree and strongly agree. Details are provided in Table 6.4. While “strongly disagree” and “disagree” rank low on the scale, “agree” and “strongly agree” rank high on the scale. The neutral value is considered as an independent and “moderating” figure on the scale. Thus, I report on three elements: low, moderate and high. For each item, interest is on where majority academics lie on the scale to ascertain academics thoughts on the load targets given by each item. This is to contribute to determining the state of the art of teaching in the two universities and ultimately its nature. Table 6.5 provides details to this effect.

Table 6.5 shows that majority of the academics in MUK rated the suggestions in this section high in five out of the six items under the element. At the same time, majority of UWC academics rated the suggestions high in three out of the six items. That is, in terms of the idea of the institution determining the number of contact hours for classroom instruction, majority of the academics in both universities agreed with the claim. That is, 16.5% and 29.8% rated the suggestion low; 72.6% and 50.9% rated it high and 11% and 19.3% took a neutral stand in MUK and UWC respectively. In terms of class size, while majority of the academics in MUK agreed with the idea of the institution determining the number of students for a class, majority in UWC disagreed with it. That is 30.8% and 44.6% rated the idea low; 50.6% and 33.9% rated it high and 18.7% and 21.4% took a neutral stand in MUK and UWC respectively. As regards the number of Masters students to supervise, majority of the academics in MUK agreed with the idea of the institution determining the number yet majority in UWC disagreed with it. That is, 17.7% and 44.2% rated the idea low, 62.2% and 23.1% rated it high and 20% and 32.7% took a neutral stand in MUK and UWC respectively.

In terms of the claim of the institution determining the number of doctoral students for supervision, majority of the academics in MUK agreed with the claim and in UWC, majority disagreed with it. That is 20 and 41.9% rated the claim low; 55.6% and 27.3% rated it high and 24.4% and 30.9% took a neutral stand in MUK and UWC respectively. As regards consultation time, majority of the academics in MUK disagreed with the idea of the institution setting time for academics to meet students, face to face or virtually yet in UWC, majority agreed with the idea. That is, 39.6% and 29.3% rated the idea low; 35.2% and 50% rated it high and 25.3% and 20.7% took a neutral stand in MUK and UWC respectively. In terms of availability at the institution, majority of the academics in both universities agreed with the idea of the institution determining the number of hours to spend at the institution. That is, 30.8% and 26.3% rated the idea low; 53.9% and 49.2% rated it high and 15.4% and 24.6% took a neutral stand in MUK and UWC respectively.



The results on load targets suggest institutional control over teaching however, the pressure may be higher in MUK than UWC. That is, majority academics in UWC identified three areas of control: teaching hours, consultation time and presence at the institution. Yet academics in MUK identified five areas: teaching hours, class size, Masters and PhD supervision, and availability at the institution.

6.3.2.3 *Teaching Enhancement*

This element has seven items common between both universities. This element is based on a five point likert ordered as: strongly disagree, disagree, undecided, agree and strongly agree. While “strongly disagree” and “disagree” rank low on the scale, “agree” and “strongly agree” rank high on the scale. The neutral value is considered as an independent and “moderating” figure on the scale. Thus, I report on three elements: low, moderate and high. For each item, interest is on where majority academics lie on the scale to ascertain academics thoughts on the avenues of teaching enhancement reflected in each item. This later contributes to determining

the state of the art of teaching and its nature in the two universities. Table 6.5 provides details to this effect.

Table 6.5 shows that majority of the academics in MUK agreed with all but the idea of “availability of training courses to enhance teaching quality”. At the same time, majority of the academics in UWC agreed with all but the idea of “community outreach reinforcing teaching”. Details to this effect are described as follows: in respect to encouraging academics to improve instructional skills in response to evaluation, majority of the academics in both universities identified the claim as true. That is, 18.7% and 15% rated it low; 63.8% and 66.7% rated it high and 17.6% and 18.3% took a neutral stand in MUK and UWC respectively. In terms of training courses, while majority academics in MUK disagreed with the idea that they are availed to aid the meeting of pedagogical demands, majority academics in UWC agreed with the claim. That is, 48.4% and 23% rated the idea low; 30.8% and 60.6% rated it high and 20.9% and 16.4% took a neutral stand in MUK and UWC respectively.

As regards emphasis on practically oriented knowledge and skills in teaching, majority academics in both universities agreed with the idea. That is, 8.8% and 6.6% rated it low; 76.9% and 80% rated it high and 14.3% and 13.3% took a neutral stand in MUK and UWC respectively. In terms of emphasising international perspectives in teaching, majority of the academics in both universities agreed with the idea. That is, 15% and 9.9% rated it low, 68.3% and 73.7% rated it high and 16.7% and 16.5% took a neutral stand. In terms of research activities reinforcing teaching, majority academics in both universities agreed with the idea. That is, 4.4% and 13.4% rated it low, 85.8% and 76.7% rated it high and 9.9% and 10% took a neutral stand. As regards the issue of community outreach reinforcing teaching, majority academics in MUK agreed with it yet the majority in UWC disagreed with it. That is, 15.4% and 41% rated it low; 61.9% and 37.7% rated it high and 19.8% and 21.3% took a neutral stand in MUK and UWC respectively. In terms of reviewing the curriculum in respect to societal

needs, majority academics in both universities agreed with the issue. That is, 11% and 11.7% rated it low; 68.2% and 66.6% rated it high and 20.9% and 21.7% took a neutral stand in MUK and UWC respectively.

The results on the teaching enhancement are consistent with the assumptions of the existence of quality control measures in both universities. However, while avenues seem readily available in UWC to improve the teaching experience, in MUK they may not be readily available. This is consistent with the limited training courses in MUK as indicated by majority of the academics in this university but not UWC. Relatedly, as part of the quality control measures, academics in both universities seem to focus on four aspects: disseminating practically oriented knowledge and skills, a teaching research, a problem based curriculum and incorporating international perspectives in content disseminated to the learners.

6.3.2.4 Comparative Summary of the Features of Teaching in MUK and UWC

Teaching in MUK and UWC seems to be more similar than different. Key to this is that the practice is a major component of academic work in both universities. This is supported by the participation in the activity by majority academics in both universities. Other points of commonality and divergence between the two universities include:

- Academics in both universities have a heavy teaching load.
- Teacher centered approaches seem to have a strong bearing on the teaching and learning process in the two universities though learner center approaches have also been embraced.
- There is institutional control over teaching however, the pressure may be higher in MUK than UWC. That is, majority academics in UWC identified three areas of control: teaching hours, consultation time and presence at the institution. Yet academics in MUK identified five area: teaching hours, class size, Masters and PhD supervision, and availability at the institution.

- There seems to be quality control measures in both universities. However, while avenues seem readily available in UWC to improve the teaching experience, in MUK they may not be readily available.
- As part of the quality control measures, academics in both universities seem to focus on four aspects: disseminating practically oriented knowledge and skills, a teaching research nexus, a problem based curriculum and incorporating international perspectives in content disseminated to the learners.

6.3.3 Community Outreach

The ratings on community outreach activities in MUK and UWC are presented in Tables 6.6 and 6.7. Table 6.6 presents the full details of the percentages of academics' ratings on the practice based on the five point likert scale. Table 6.7 presents the summary of results presented in Table 6.6. The presentation and analysis of results in this section is based on Table 6.7. The analysis in this subsection is based on the 21 items under the construct. This presentation is on three areas: research and teaching based activities for community outreach and the importance of community outreach.

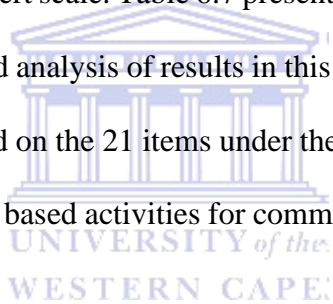


Table 6.6: Academics responses about community outreach activities

Research based activities for community outreach

Indicator	Very low (%)		Low (%)		Moderate (%)		High (%)		Very High (%)	
	MUK	UWC	MUK	UWC	MUK	UWC	MUK	UWC	MUK	UWC
<i>Patenting and licensing</i>	68.9	91.2	16.7	1.8	5.6	5.3	5.6	0	3.3	1.8
<i>Joint research and publication</i>	14.3	33.9	14.3	3.4	13.2	18.6	35.2	18.6	23.1	25.4
<i>Innovative research applications in the classroom</i>	17.6	33.9	14.3	10.2	16.5	27.1	33	15.3	18.7	13.6
<i>Evaluation (of policies and developments of companies, government, region etc)</i>	28.6	54.2	14.3	11.9	16.5	8.5	25.3	15.3	15.4	10.2
<i>Consultancy</i>	12.1	50	13.2	12.1	14.3	13.8	37.4	12.1	23.1	12.1

Teaching based activities for community outreach

<i>Curriculum development with external agencies</i>	28.1	70.4	15.7	7.4	9	7.4	23.6	7.4	23.6	7.4
<i>Joint supervision of student internship</i>	4.4	50.9	3.3	14	5.5	21.1	28.6	8.8	58.2	5.3
<i>Joint supervision with industry of bachelor, masters and/ doctoral thesis</i>	23.1	62.5	15.4	10.7	14.3	8.9	25.3	12.5	22	5.4
<i>Volunteer based work/consultancy in a honorary capacity</i>	18.9	41.1	13.3	19.6	16.7	12.5	25.6	14.3	25.6	12.5
<i>Public lecturers and speeches</i>	17.8	37.5	27.8	8.9	13.3	17.9	26.7	19.6	14.4	16.1
<i>Executive contract tailor made programs and courses</i>	25.3	67.3	16.5	5.5	15.4	14.5	26.4	9.1	16.5	3.6
<i>External activities derived from research</i>	2.2	21.4	9	5.4	18	14.3	46.1	35.7	24.7	23.2
<i>External activities derived from teaching</i>	0	14.3	13.8	10.7	11.5	19.6	43.7	28.6	31	26.8

Importance of community outreach

<i>Indicator</i>	Not important (%)		A little important (%)		Relative (%)		Important (%)		Very important (%)	
<i>Importance of outreach for your research topics</i>	4.4	21.7	5.5	8.3	13.2	25	39.6	21.7	37.4	23.3
<i>Your teaching assignments</i>	2.2	27.1	11	8.5	20.9	28.8	36.3	20.3	29.7	15.3
<i>Your academic reputation</i>	1.1	13.3	4.4	1.7	18.7	30	31.9	25	44	30
<i>Your career advancement</i>	0	16.9	4.4	8.5	23.1	15.3	31.9	30.5	40.7	28.8
<i>Your academic field or discipline</i>	2.2	18.6	2.2	8.5	13.2	27.1	36.3	18.6	46.2	27.1
<i>The local community</i>	1.1	20.3	6.6	10.2	24.2	23.7	48.4	15.3	19.8	30.5
<i>Society at the national level</i>	2.2	16.9	9.9	5.1	19.8	25.4	51.6	32.2	16.5	20.3
<i>Society at the continental level</i>	8.8	20.3	14.3	11.9	29.7	32.2	31.9	20.3	15.4	15.3

Source: Field Survey

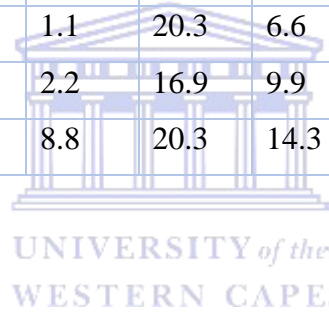


Table 6.7: Summary of Academics' Ratings of Community Outreach Activities

Research based activities for community outreach

Indicator	Low		Moderate		High		Majority	
	MUK	UWC	MUK	UWC	MUK	UWC	MUK	UWC
<i>Patenting and licensing</i>	85.6	93	5.6	5.3	8.9	1.8	Low	Low
<i>Joint research and publication</i>	28.6	37.3	13.2	18.6	58.3	44	High	High
<i>Innovative research applications in the classroom</i>	31.9	44.1	16.5	27.1	51.7	28.9	High	Low
<i>Evaluation (of policies and developments of companies, government, region etc)</i>	42.9	66.1	16.5	8.5	40.7	25.5	Low	Low
<i>Consultancy</i>	25.3	62.1	14.3	13.8	60.5	24.2	High	Low

Teaching based activities for community outreach

<i>Curriculum development with external agencies</i>	43.8	77.8	9	7.4	47.2	14.8	High	Low
<i>Joint supervision of student internship</i>	77.7	64.9	5.5	21.1	86.8	14.1	High	Low
<i>Joint supervision with industry of bachelor, masters and/ doctoral thesis</i>	38.5	73.2	14.3	8.9	47.3	17.9	High	Low
<i>Volunteer based work/consultancy in a honorary capacity</i>	32.2	60.7	16.7	12.5	51.2	26.8	High	Low
<i>Public lecturers and speeches</i>	45.6	46.4	13.3	17.9	41.1	35.7	Low	Low
<i>Executive contract tailor made programs and courses</i>	41.8	72.8	15.4	14.5	42.9	12.7	High	Low
<i>External activities derived from research</i>	11.2	26.8	18	14.3	70.8	58.9	High	High
<i>External activities derived from teaching</i>	13.8	25	11.5	19.6	74.7	55.4	High	High

Importance of community outreach

<i>Importance of outreach for your research topics</i>	9.9	30	13.2	25	77	45	High	High
<i>Your teaching assignments</i>	13.2	35.6	20.9	28.8	66	35.6	High	H/L
<i>Your academic reputation</i>	5.5	15	18.7	30	75.9	55	High	High
<i>Your career advancement</i>	4.4	25.4	23.1	15.3	72.6	59.3	High	High
<i>Your academic field or discipline</i>	4.4	27.1	13.2	27.1	82.5	45.7	High	High
<i>The local community</i>	7.7	30.5	24.2	23.7	68.2	45.8	High	High
<i>Society at the national level</i>	12.1	22	19.8	25.4	68.1	52.5	High	High
<i>Society at the continental level</i>	23.1	32.2	29.7	32.2	47.3	35.6	High	High

Source: Field Survey



6.3.3.1 *Research based Activities for Community Outreach*

This element has five items common between both universities. It is based on a five point likert scale ordered as: very low, low, moderate, high and very high. While “very low” and “low” rank low on the scale, “high” and “very high” rank high on the scale. The neutral value is considered as an independent and “moderating” entity on the scale. Thus, I report on three aspects: low, moderate and high. For each item, interest is on where majority academics lie on the scale to ascertain academics level of involvement in research based activities for community outreach. This is meant to contribute to determining the features of community outreach in the two universities and consequently its nature. Table 6.7 has details to this effect.

Table 6.7 shows that majority academics in MUK rated themselves high in three out of the five items. In contrast, majority academics in UWC rated themselves low in four out of the five items. The description to this effect is as follows: in terms of patenting, majority academics in both universities indicated a low involvement. That is, 85.6% and 93% rated it low; 8.9% and 1.8% rated it high and 5.6% and 5.3% categorised it as moderate in MUK and UWC respectively. In terms of creating a spinoff/start-up company, majority of the academics in MUK indicated a low involvement. That is, 76.6% rated it low, 8.9% rated it high and 14.4% categorised it as moderate in MUK and UWC respectively. As regards research and publication with external partners, majority of the academics in both universities indicated a high level of participation in the activity. That is, 28.6% and 37.3% rated it low; 58.3% and 44% rated it high and 13.2% and 18.6% categorised it as moderate in MUK and UWC respectively.

In terms of innovative research application in class, majority of the academics in MUK indicated a high involvement in the activity contrary to UWC where majority indicated a low involvement. That is, 31.9% and 44.1% rated it low; 51.7% and 28.9% rated it high and 16.5% and 27.1% categorised it as moderate in MUK and UWC respectively. As regards evaluation of policies and developments of companies, government, region among others, majority

academics in both universities indicated a low participation. That is, 42.9% and 66.1% rated it low: 40.7% and 25.5% rated it high and 16.5% and 8.5% categorised the involvement moderate in MUK and UWC respectively. As regards consultancy, majority academics in MUK indicated a high involvement in the activity contrary to the majority in UWC that indicated low involvement. That is, 25.3% and 62.1% rated it low: 60.5% and 24.2% rated it high and 14.3% and 13.8% categorised the involvement moderate in MUK and UWC respectively.

The results in this section are consistent with two assumptions. First, they further confirm the low levels of innovation among academics of both universities. This is reflective of the low interest in securing patents. Second, research reinforces community outreach more in MUK than UWC. That is, while academics in both universities seem to be interested in research and publication with external partners, academics in MUK show further interest in innovative knowledge dissemination and consultancy.

6.3.3.2 Teaching based Activities for Community Outreach

This element has eight items based on a five point likert scale ordered as: very low, low, moderate, high and very high. While “very low” and “low” rank low on the scale, “high” and “very high” rank high on the scale. The neutral value is considered as an independent and “moderating” entity on the scale. Thus, I report on three aspects: low, moderate and high. For each item, interest is on where majority academics lie on the scale to ascertain academics level of involvement in teaching based activities for community outreach. This is to contribute to determining the features of community outreach in the two universities. Table 6.7 has details to this effect.

Table 6.7 shows that majority academics in MUK rated themselves high in seven out of the eight items on teaching based activities for community outreach. In contrast, majority academics in UWC rated themselves low in six out of the eight aspects. The description to this

effect is as follows: in terms of curriculum development with external agencies, majority academics in MUK rated themselves high on the subject while the majority in UWC indicated a low involvement. That is, 43.8% and 77.8% rated it low, 47.2% and 14.8% rated it high and 9% and 7.4% indicated it moderate in MUK and UWC respectively.

In terms of supervision of students' internship with external agencies, majority academics in MUK indicated a high involvement while the majority in UWC indicated a low involvement in the activity. That is, 7.7% and 64.9% rated it low, 86.8% and 14.1% rated it high and 5.5% and 21.1% categorised it moderate in MUK and UWC respectively. As regards supervision of students' thesis with external partners, majority academics in MUK indicated a high involvement in the activity contrary to the majority in UWC that indicated it as low. That is, 38.5% and 73.2% rated it low; 47.3% and 17.9% rated it high and 14.3% and 8.9% categorised it moderate in MUK and UWC respectively.

In terms of volunteer based work in a honorary capacity, majority academics in MUK indicated high participation contrary the majority in UWC that indicated low participation. That is, 32.2% and 60.7% rated it low; 51.2% and 26.8% rated it high and 16.7% and 12.5% categorised it as moderate in MUK and UWC respectively. In terms of public lecturers majority academics in both universities indicated low involvement. That is, 45.6% and 46.4% rated it low; 41.1% and 35.7% rated it high and 13.3% and 17.9% categorised it moderate in MUK and UWC respectively. As regards designing programmes and courses, majority academics in MUK indicated high involvement contrary to UWC. That is, 41.8% and 72.8% rated it low; 42.9% and 12.7% rated it high and 15.4% and 14.5% categorised it moderate in MUK and UWC respectively. As regards deriving outreach activities from research, majority academics in both universities agreed with the idea. That is, 26.8% and 11.2% rated the idea low, 58.9% and 70.8% rated it high and 14.3% and 18% took a neutral stand in MUK and UWC respectively.

In terms of deriving outreach activities from teaching majority academics in both universities

agreed with the idea. That is, 25% and 13.8% rated it low, 55.4% and 74.7% rated it high and 19.6% and 11.5% took a neutral stand in MUK and UWC respectively.

The results point to two suggestions. The first is that intellectual engagement and extension may not be a priority of majority academics in both universities. This is consistent with the commonality in engagement in public lectures on a limited level. The second is that teaching and research reinforce community outreach in MUK. The activities that academics derive from teaching include: supervision of students' thesis, volunteer based work, designing programmes and courses with external partners. On the otherhand, while research may inform community outreach in UWC, teaching may have little to do with it given the low levels of involvement in any outreach activity informed by teaching.

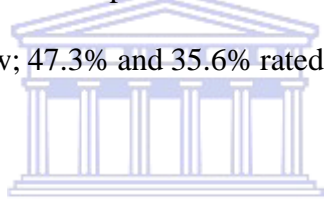
6.3.3.3 *Importance of Community Outreach*

The element has eight items common between MUK and UWC. The items are based on a five point likert scale ordered as: Not important, a little important, relative, important and very important. While “not important” and “a little important” rank low on the scale, “important” and “very important” rank high on the scale. The neutral value is considered as an independent and “moderating” entity on the scale. Thus, I report on three aspects: low, moderate and high. For each item, interest is on where majority academics lie on the scale as a basis for ascertaining the importance academics attach to community outreach. This is to contribute to determining the basic features of community outreach in the two universities and ultimately its nature. Table 6.7 presents details to this effect.

Table 6.7 shows that majority academics in both universities rated high all item under the importance of community outreach. This is distributed respectively between MUK and UWC as follows: importance to research topics, 9.9% and 30% rated it low: 77% and 45% rated it high; 13.2% and 25% rated the importance relative. Teaching assignments, 13.2% and 35.6%

rated it low; 66% and 35.6% rated it high; 20.9% and 28.8% consider the importance relative. Academic reputation, 5.5% and 15% rated it low; 75.9% and 55% rated it high; 18.7% and 30% indicated the importance as relative. Career advancement, 4.4% and 25.4% rated it low; 72.6% and 59.3% rated it high; 23.1% and 15.3% rated the importance relative. Academic field, 4.4% and 27.1% rated it low; 82.5% and 45.7% rated it high; 13.2% and 27.1% rated it relative in importance.

In terms of the importance of community outreach to the local community, 7.7% and 30.5% rated it low; 68.2% and 45.8% rated it high; 24.2% and 23.7% considered the importance relative. In terms of the importance of community outreach to society at the national level, 7.7% and 30.5% rated it low; 68.1% and 52.5% rated it high; 19.8% and 25.4% consider it relative in importance. In terms of the importance of community outreach at the continental level 23.1% and 32.2% rated it low; 47.3% and 35.6% rated it high; 29.7% and 32.2% consider it relative in importance.



The results in this section are consistent with two assumptions. The first is that community outreach may be an important part of the academic and social life of academics in both universities. This is consistent with its influence on the selection of research areas, teaching assignments, career advancement, reputation and the academics' discipline. The second is that academics' knowledge and expertise may be addressing societal concerns at the local, national and continental levels.

6.3.3.4 Comparative Summary of the Features of Community Outreach in MUK and UWC

Community outreach in MUK and UWC seems to have more areas of commonality than divergence. The description to this effect is as follows:

- There are low levels of innovation among academics of both universities. This is reflective of the low interest in securing patents.
- The first is that intellectual engagement and extension may not be a priority of majority academics in both universities. This is consistent with the commonality in engagement in public lectures on a limited level.
- Community outreach may be an important part of the academic and social life of academics in both universities. This is consistent with its influence in the selection of research areas, teaching assignments, career advancement, reputation and the academics' discipline.
- Academics' knowledge and expertise may be addressing societal concerns at the local, national and continental levels.
- The second is that teaching reinforces community outreach in MUK. The activities that academics derive from teaching include: supervision of students' thesis, volunteer based work, designing programmes and courses with external partners. On the otherhand, teaching may have little to do with community outreach in UWC given the low levels of involvement in any outreach activity informed by teaching.
- Research reinforces community outreach more in MUK than UWC. That is, while academics in both universities seem to be interested in research and publication with external partners, academics in MUK show further interest in innovative knowledge dissemination and consultancy.

6.4 Conclusion

In this chapter, I have described and analysed the data generated from the self administered questionnaires on the academic profession in MUK and UWC. This chapter has two subsections, the first focuses on the demographic characteristics of the surveyed academics. The second establishes the nature of academic research, teaching and community outreach in the two

universities. I embarked on a descriptive analysis and discussion of the nominal and ordinal questions under each construct of the academic profession. The nominal questions are presented graphically and analysed using the percentages generated. The ordinal questions are based on a five point likert scale and are presented in tabular form. Percentages representing majority interest of academics on a given aspect were the focus of the analysis and discussion. These aided the identification of the features of the academic profession upon which comparison was made in the two universities.

The results have revealed that research in MUK reflect more of alignment towards mode 2 knowledge production. Teaching is aligning more towards performativity and a dedication to learner-centered methods of instruction even though teacher centered methods exist. Yet the features of community outreach reflect it as an important part of the academic and social life of academics. In UWC, the chapter has revealed that academic research exhibits bias towards mode 2 knowledge production. The features of the teaching oscillate between teacher and learner centered approaches to teaching in the University. Yet the features of the community outreach reflect it as an important part of the academic life but with relative interest in service to society. This is consistent with the low interest demonstrated in the low rating of the academic activities to this effect. Important to note is that the feature in the two universities were more similar than different.

Chapter Seven

Trajectory of the Academic Profession in Makerere University and the University of the Western Cape

7.1 Introduction

In this chapter, I present the qualitative assessment of academic research, teaching and community outreach in MUK and UWC. This chapter specifically addresses the question: What is the trajectory of the academic profession in MUK and UWC, 2007 through 2018? The analysis and discussion in this chapter is from the semi-structured interview data from the academics of both universities. Twenty academics, ten from each of the two universities were interviewed. The interviewees cut across sex, academic rank and department lines. That is, five academics from each university were female and the second half male. These were from the ranks of Professor, Associate Professor, Senior Lecturer and Lecturer. The departments represented include Education Studies, English, Law and Jurisprudence, Economics, Accounting, Library and Information Science, Biotechnology and Chemistry.

Thus, guided by the neo institutional framework, the analysis of academics' views on research, teaching and community outreach provided insight into the process shaping the academic profession in the two universities. I present and discuss the findings under the themes with the corresponding subthemes and categories that emerged from the analysed data in each university and after which I compare it. The ensuing section provides further details to this effect.

7.2 Results and Discussion Makerere University

7.2.1 Research in MUK

Uganda's journey to a knowledge society is associated with a number of policies in science, technology, innovation and human resource development meant to propel the nation towards

its quest (NPA, 2015; Muvawala, 2017). The university, which depicts a high disposition to grooming knowledge workers, innovation, research and knowledge production compared to other research entities in the country (UNCST, 2016) is spontaneously expected to align with the needs of the emerging knowledge society. In tracing the reaction of academic research to national needs, I examine academics views reflecting the period 2007 through 2018 to identify the trend of practice. Data analysis revealed two themes associated with four subthemes and categories in the University. The details to this effect are as presented in Table 7.1.



Table 7.1: Themes, Subthemes and Categories in Research, Teaching and Community Outreach in MUK

Theme	Subthemes	Categories	Analytical framework
Dynamic elements in research	Research identity	Area/s of focus Basic to applied research Research funding	Coercive, mimetic and normative isomorphism
	Collaboration	Team research Inter institutional networking	
	ICT in research	ICT as a tool of research	
Blended approach to research	Importance of basic research	Basic research as a foundation to applied research Low levels of research in LDCs	
Dynamic elements in teaching	Approach to teaching	Face to face to ICTs Teacher as a facilitator rather than a source of knowledge Online resources	Mimetic & Normative isomorphism
	Profile of learners	ICT literacy Academic capacity of students	Mimetic & Normative isomorphism
	Contemporary graduate	Internationalisation of the labour market Demands of local labour market Technology intensity in the work environment	Mimetic & normative isomorphism

Dynamic elements in community outreach	Nature of community outreach	ICT as a mediator in knowledge sharing Research based community outreach activities Knowledge sharing	Coercive, mimetic & normative isomorphism
	Conditions of knowledge sharing	Community outreach as a tool for promotion Role of donors in community outreach	Coercive isomorphism



UNIVERSITY *of the*
WESTERN CAPE

7.2.1.1 *Dynamic Elements in Research*

This theme captures the research pattern of academics in MUK in the past decade. It emerged that there are both dynamic and blended elements in the research activities. In respect to the dynamic elements, the findings indicate that there are emerging developments specific to the research focus. It further emerged that aspects like collaboration, career growth and ICT further shape the research stand of academics. Analysing each aspect therefore provides an understanding of the contribution to the trajectory of research in the University.

7.2.1.1.1 *Research Identity*

The findings indicate an acknowledged change in the research approach of academics in the University. That is, a progressive alignment towards applied research. The justification for the shift is the growing need for the production of knowledge responsive to societal needs. Studies, Papadimitriou (2011) and Croucher and Woelert (2016) suggest that environmental forces are responsible for the pressure upon which universities are changing their practice. Chizema and Buck (2006) further suggest that the nature and degree of the change depends on the embeddedness of an organisation like MUK in the context of operation. Consequently, academic research in MUK, which is a public institution accountable to government, was bound to identify with the needs of society. The evidence to this effect is reflected in the views of participants eight and two who note:

When I first started teaching here, as academics, we were doing legal research; you look at the law and nothing else; what does it say; how does it say it; how is it interpreted but things have changed, now you look at the law as is, then you question the law as should be. So, you are not looking at the black letter of the law, you are looking at the law and the spirit of the law...it is basically law but you have an eye to society, the law relates to society (M8: MUK Academic)

In the last years, it was more of basic research, how does this molecule behave when it reacts with this but now, I have mainly transferred to applied, if I react this and this, what new compound can I get that will help society. A key example is the research we carried out on electronic waste; the findings we got have been the basis of developing the e-waste policy with in the country (M2: MUK Academic).

The focus on societal responsive research is consistent with the findings of Fonn et al (2018) that observed a growing tendency of sub-Saharan universities to produce knowledge fit for purpose. Ekanem and Okon (2015) further discovered that knowledge production may be low in a university in Nigeria but it was highly inclusive for societal growth. Contrary findings were however established in Muriisa and Rwabyoma (2019) who observed that the knowledge produced in universities in Uganda and Rwanda has a low focus on the needs of society. Despite the contrast in the discussion, the progressive shift from basic research is emerging as a characteristic that one may associate with academic research in Makerere University.

In a related development, participants in the university identified donor funding as a key aspect directing their research focus given that the applied is favoured against basic research. The 2019 Makerere University annual report defines donor funding as the contribution of research partners like the Carnegie Corporation of New York, Consortium of Advanced Research Training in Africa (CARTA), the World Bank among others (PDD, 2019). Thus, as funders, donors represent an oversight role, which points to coercive isomorphism. This possibly explains why participants presented themselves as victims of the system, pressured to abandon basic research. This is reflected in the views of participant ten and six who note:

The reason why I am more on applied research maybe I should say is funding. Nobody can fund theoretical advancement, if I now argue on the basis of normative accounting versus positive accounting, nobody will fund it, but somebody will fund

me if am concerned about say the cost of cancer drugs...because that applies directly to the survival of individuals (M10: MUK Academic).

The way we do research, somehow, it has to be sponsored and it is becoming increasingly difficult to get funders who are interested in basic research. Normally, the source of the funds, the partners we research with have a problem to solve and therefore, that has an impact on the kind of research that we do. That explains the shift from basic to applied research because [whoever] puts money into research wants it in certain direction, to solve a problem in society (M6: MUK Academic).

Evidently, both the donors and researchers seem to attach a high value to applied research. This is consistent with the findings of Grépin, Pinkstaff, Shroff and Ghaffar (2017) that noted a vested interest in funding research with practical outcomes. The discussion in this subsection highlights research in the university as taking the applied route. There two important points to note, the first is that there is an element of personal gain consistent with the suggested academics commodification of knowledge due to the effects of neoliberalism on universities across sub-Saharan Africa, Uganda inclusive (Ochwa-Echel, 2013; Sifuna, 2014).

The second is that the manifestation suggests the production of societal responsive knowledge which Stehr (2009) and Scaratti, Galuppo, Gorli, Gozzoli and Ripamonti (2017) and Barrotta and Montuschi (2018) identify with the knowledge age. At the same time, Cernat (2011) and Kauppinen (2014) note an elevated commodification of knowledge due to the growing desire for societal responsive research in the knowledge age. Thus, it is plausible to say that neoliberalism laid the foundation upon which academic research in MUK may be progressively shifting towards application due to the rising knowledge society in Uganda.

7.2.1.1.2 Collaboration

The nature of collaborations represent another area of acknowledged change in academic research in MUK. The results particularly indicate that contemporary research requires diversified expertise. The participants to this effect indicate an emerging norm rendering academic research a team activity requiring individuals or institutions to work together. This points to normative and mimetic isomorphism given that it is in fulfilling professional etiquette that these particular academics have conformed to what they present as an emerging practice in their circle. Thus, they collaborate and engage in multidisciplinary research to fit the trend. Participant six and seven note:

It is very unlikely that individually I will set out to write a proposal and go ahead to implement the proposal; we normally do it in collaboration with other parties, universities, across departments...so by and large, there is that element of collaboration. Then the research we do is more largely multidisciplinary, we look into how we can apply the concept of IT to agriculture, economics, Vet [veterinary], the social sciences. Therefore, it means that as an individual, I can no longer do IT based research alone; I look at how IT can be applied to agriculture and other fields (M6: MUK Academic).

The research I have done has been collaborative...generation of knowledge is incomplete if it is not multidisciplinary, you need to have a holistic approach to problems; problems are always tackled using a multi-disciplinary angle (M7: MUK Academic).

Thus, knowledge production is portrayed as a product of teamwork in MUK. This finding resonates with the findings of Arnold (2013) and Sooryamoorthy (2013) who established a growing quest for unity of knowledge, which is shifting science to pooled individuals and

disciplines. Collaborative and multidisciplinary research is associated with mode 2 knowledge production typical of a knowledge society (Nowotny et al., 2003; Kauppinen, 2014; Gopaul et al., 2016). Thus, academic research in MUK may be embracing the identified characteristics in response to the contemporary needs of the country.

7.2.1.1.3 ICT in Research

The findings indicate that the research process is changing due to the emerging tools specific to information and communication technology guiding the practice. A number of participants attest to this idea though of particular interest to the issue are the views of two participants. Participant M5 and M6 describe ICT as the mark of distinction between the old and what they regard as the new and logical way of conducting research. This idea suggests mimetic isomorphism given that the participants feel that ICT is the way to go in the current research landscape, hence, adjusting to the technology is a matter of necessity rather than choice. The practice of research is therefore changing due to the shift to the use of ICT in the University. The views of the participants to this effect state:

When you look at how people seek information today, it has changed. Originally, we would walk into the library and approach the reference desk, but that is no more. You know people are now relying on google, via tablets and mobile phones. Now we are talking about social media and how it is influencing access to research information which was not the case five or ten years ago (M5: MUK academic).

If you look at how research was done twenty years ago, it was a lot more difficult to get information, we depended on journals, hard copies but now data is more readily available (M6: MUK Academic).

Thus, ICT seems to be evidently favoured against hardcopy information for research in MUK. The finding is consistent with Nweze (2010) that identified ICT as a revolution sweeping the

university in Nigeria with evidence reflected in the transformation of research among other academic activities. The 2018 report on the state of higher education in Uganda also noted great progress in the availability and use of ICTs in universities in the country (NCHE, 2019). The revolution that ICT has created in the production of knowledge is associated with the technology intensity of knowledge societies (Luić & Glumac, 2009; Carlaw et al., 2012). Thus, the use of ICT in research may be emerging as a norm in MUK due to the rising knowledge society in Uganda.

7.2.1.2 *Blended Approach to Research*

This theme attests to the idea that some aspects of academic research in MUK may be changing; others are simply building on the original practice. That is, there are academics that identify with both basic and applied research and others purely basic. This provides a point of reference to the narrative of the trends in the practice in the university. The ensuing subsection provides further details to this effect.



7.2.1.2.1 *Importance of Basic Research*

The findings revealed that the shortage of pure knowledge in face of the favoured applied research has rendered basic research relevant to the research agenda of some academics in MUK. It thus emerged that some academics find it important to conduct basic research more so in a country with a limited volume of the very knowledge. Pertinent to the issue are the views of participant M9 and M10 who present the decision to conduct basic research as a personal choice. This initiative suggests that not all academics in the university are drifting with the prevailing pressure in their work environment, which challenges isomorphism as a possible driver of the trajectory of contemporary research. The evidence to this effect states:

I have not completely abandoned the theoretical advancement, I should say, my research is based on two strands; theoretical advancement and applied research. (M10: Academic MUK)

We do not have the basic information collected, even when it is corrected, its raw data that needs processing and there are very few scientists who actually go out there and do the work... so whereas most developed countries are at the level of sharing, we still have a lot to do since even 50% is not yet done, gathering that information (M9: MUK Academic).

Evidently, basic research is still an important part of the research profile of some academics in the university. This finding is in line with the finding of Bentley, Gulbrandsen and Kyvik (2015) who established a strong presence of basic research in a university. Thus, it is possible that basic research is an indispensable part of academic research in the university. This however cannot overshadow the idea of a shift towards applied research due to the rising knowledge society in Uganda.



7.2.2 Teaching in MUK

In this subsection, I examine academics views on teaching to identify the trend of the practice in the past twelve years. Data analysis revealed one theme associated with three subthemes and categories in the University. The details to this effect are as presented in Table 8.1.

7.2.2.1 *Dynamic Elements in Teaching*

The findings indicate a tendency towards adjusting to the demands of the teaching and learning environment in the country. It thus emerged that there are three areas exhibiting new developments. The first is the way academics approach teaching. The second in the profile of the learners that academics are handling in the contemporary university. The third are the

expectations for a twenty first century graduate. The three elements aid the understanding of the trajectory of teaching in the university.

7.2.2.1.1 Approach to Teaching

The findings indicate an acknowledged shift from teacher to learner centered pedagogy. This idea resonates with the views of a number of participants however key to this debate are the views of participants M8 and M10. The two describe a distinct shift from what they considered as traditional methods to blended learning. The specificity of the shift described is identified with mimetic isomorphism. That is, the academics seem to have had no option but to adjust for example to the online teaching and learning methods that had taken root in the university. The evidence to this effect states:

Teaching was largely classroom based; the teacher and the learner would meet for face-to-face interaction. We have had that shift from purely classroom based to a blended learning approach where we mix the traditional and the eLearning techniques.....I would say over the last ten years, the use of online learning has been on the increase and the use of traditional methods has decreased. It is more likely now that I will share teaching materials, notes, questions, exams online and it is also more likely that I will receive answers online (M8: MUK Academic).

I would get textbooks, prepare my lectures, go and teach, that is not the case now. It is now mostly a combination aspect; textbook may only constitute 10-15% of the whole preparation. Majority of the preparation could now be case studies, demonstrations (M10: MUK Academic).

The evident shift to the learner-centered methods with among other things online instruction is key to the trajectory of the practice in the university. The annual report of MUK for 2011 shows that the university took a strategic decision to embrace student centered instruction

through encouraging the development of outcome based curriculum (PDD, 2011). The university called for then and still requires all academic staff to take a certificate course in higher education to enhance student centered delivery of programmes in the university (PDD, 2011; 2017). At the same time, to counteract the changing role of the teacher from the custodian of knowledge to a facilitator (Bonal & Rambla, 2010; Hallman, 2019), an ICT enabled teaching learning environment was put to full effect in the university by 2017 (PDD, 2017). The adjustments further point to mimetic isomorphism upon which universities are increasing their survival prospects by adopting strategies to keep them afloat in the uncertain contemporary university environment (Croucher & Woelert, 2016). This finding is consistent with the evidence in literature suggesting that transforming the knowledge and skills of learners to fit in the knowledge society requires the learner to play an active role in the teaching learning process (Bonal & Rambla, 2010; Sahlberg & Boce, 2010). Hence, the change in the practice of teaching may be in response to the rising knowledge society in Uganda.

7.2.2.1.2 Profile of the learners

The findings indicate that the nature of the students enrolling in the university is changing which is changing the way academics teach. This is specific to ICT literacy and the academic capacity of the students. Indeed, participant M6 indicates that the digital advantage of the students is compelling academics to use ICT in the teaching and learning process given that they have no choice but to match up to the digital competence of the learners. This points to survival mechanisms dictated by mimetic and normative forces upon which teaching and learning in the university must keep abreast with technological advancements by academics rising to contemporary teaching standards (TCCBS, 2007; Ng, Nakano & Fox, 2016).

Participant M7 however presents the dot com student as a challenge to the educator. The reliance on the internet is cited as limiting the creativity of the learner, which is forcing the

academic to adjust the teaching. This speaks to normative isomorphism upon which the academic is professionally compelled to match the teaching to the needs of the learner. The evidence to this effect states:

The learners we have were born in the digital age; many of us are digital immigrants. Therefore, the shift from a population of largely digital immigrants to digital natives is shifting the way we teach. Mostly we do a lot of online teaching and use social media and several others (M6: MUK Academic).

When government was sponsoring students, the kind of students we got were from the “ivy league” and they came with good grades. I taught that kind of a student until 1999. Students now “just pass” so one has to drive them to think, to be aware of their environment; as dot com students, whatever is on the internet is sacred, it is un questioned. With this kind of student, a professor has to be extremely active and motivated to push them an extra mile (M7: MUK Academic).

This information provides evidence of the influence of the learner on pedagogy. This coincides with four initiatives identified from MUK reports on using technology in teaching and learning. The first is the introduction of online laboratories to enhance the learner’s experience especially in the science programmes (PDD, 2011). The second is the increased utilisation of mobile phones and social media to promote peer to peer learning (PDD, 2013). The third is the introduction of a formal e-Learning environment for staff to post course material, assess and communicate with learners (PDD, 2015). The fourth is the establishment of an open distance and e-Learning platform for distance learning programmes in the University (PDD, 2016) with the policy pertaining to the programme formerly approved in 2017 (PDD, 2017). This points to a legitimisation strategy where competence in ICT is an avenue to cope with the changing

means of access and dissemination of knowledge in a technology laden knowledge age (TCCBS, 2007).

7.2.2.1.3 The Contemporary Graduate

The findings indicate that the expectations for a twenty first century graduate are changing the practice of teaching in the university. It emerged that academics are adjusting the training to suit the knowledge and skills required by the local and international labour markets. The participants M1 and M3 salient to this debate indicate a shift from what they consider as old methods to those that for example boost the technology capacity of students. The evidence to this effect claim:

If the job market is looking for new skills, if the job market is looking for new outlooks to life, if the job market is using different technologies to carry out work, you cannot continue to teach students using old methods and hope they will go out there and cope with the new methods in the work place (M1: MUK Academic).

Students are no longer employed in Uganda; they are working everywhere. So, we are training a progressing student, a student who should be competitive in any place (M3: MUK Academic).

This provides empirical evidence of how external forces like the demands of the labour market direct choices in teaching in a university. This points to isomorphism upon which phenomena in the environment shapes operations in organisations (DiMaggio & Powell, 1991). Thus, Bonal and Rambla (2010) noted that universities are embarking on reforming pedagogy to cope with emerging expectations of work and life. This is akin to the two developments that have emerged from the annual reports of MUK in the past decade. The first is that postgraduate and undergraduate programmes were revised to weed out overlap between disciplines to enhance their relevance to national needs (PDD, 2008; 2011; 2013; 2014; 2017). The second is that students' internship and field attachments were enhanced with collaboration with world leading

universities like Massachusetts Institute of Technology for an international exposure to knowledge and skills (PDD, 2016; 2017).

The initiatives pertaining to curriculum reform, practice based learning and human resource production attest to the labour market as a driver of pedagogical choices in MUK. Important to note is that academics identified the labour market rather than the rising knowledge society as a driver of developments in the teaching practice. However, the findings in this section are consistent with the ambitious reforms aimed at aligning education to the social and economic realities posed by the knowledge age (TCCBS, 2007; Sahlberg & Boce, 2010; Ng et al., 2016; Harris & Ormond, 2019). This suggests change emerging from the rising knowledge society as a driver of developments in teaching in MUK as it responds to the needs of the labour market.

7.2.3 Community Outreach in MUK

In this subsection, I examine academics views on community outreach to identify the trend of practice. Data analysis revealed one theme associated with two subthemes and categories in the University. The details to this effect are as presented in Table 7.1.

7.2.3.1 *Dynamic Elements in Community Outreach*

This theme describes the developments in community outreach from the perspective of academics in MUK. It emerged that there are two areas of focus to this effect, the nature of the practice and the conditions of knowledge sharing. These aided the understanding of the trajectory of the practice in the past decade.

7.2.3.1.1 Nature of Community Outreach

The findings indicate an acknowledged change in the way academics conduct community outreach in the university. This is reflected in the research-based practice and the use of ICT for knowledge sharing. Henceforth, participant M3 indicated the existence of a symbiotic relationship built upon the knowledge shared between the researcher and the community. This

is consistent with normative isomorphism given that the academic rendered academia porous for a meaningful interaction with the community, which legitimised the professional expertise. At the same time, participant M6 describes a shift in practice hinged on the relationship between community literacy levels and ICT. That is, the academic adjusted to the prevailing conditions by using electronic avenues to share knowledge with the community. The evidence to this effect states:

I think the way we do community outreach has changed from the researcher who knows it all, to the concept of what do they know [community] what do I know, how can we use both knowledge/s to make better this society. So, the ivory tower concept has been broken down and we realise that there are certain things I know and they do not know and it alright if there are certain things, they know that I don't know but the most important thing is how can we use both things to make our community better (M3: MUK Academic).

Ten or more years ago, one needed to physically go to the community and try to educate them. What has changed is that the literacy levels have gone up in most communities so there are many tools available now internet, social media. So, instead of going to the community, you create a community as a WhatsApp group to share information instantly (M6: MUK Academic).

Stensaker et al (2019) observed that the contemporary university is rising to changes in its environment by embracing a variety of avenues to develop its legitimacy. This may explain the role of ICT in the practice of community outreach given its significance in revolutionising academic work world over (Hatlevik & Hatlevik, 2018; Satti & Mohamed, 2018). In terms of research based outreach, Piirainen et al (2016) and Saltmarsh (2016) suggest it as pointing to two things. The first is the scholarship of engagement, which is a practical approach to community outreach acknowledged as an avenue of improving the legitimacy of the university

in society. The second is the demonstration of relevance required in contemporary academia typical of the knowledge society. Thus, the trends in community outreach may reflect the needs of contemporary Uganda.

7.2.3.1.2 Conditions of Knowledge Sharing

The findings indicate that community outreach in MUK is a product of internal and external factors specific to the quest for promotion and donors influence respectively. Thus, Participant M2 describes a working environment marred by expectations that affect regimes of academics differently. That is, while outreach activities are driven by the quest for promotion among young academics, seasoned academics are driven by donors. This however points to commonality specific to the role of a third party in shaping the practice in the university. The evidence to this effect states:

I think one of the factors is that it is a condition for promotion.... but to the senior staff, it is pressure from the donors, they also put that condition; in fact, these days, they put more emphasis on policy briefs rather than publications...the publications just reach the scientific community; you may not even be interested in a publication in chemistry because it is not your interest but if it is a policy brief, then you know that it will directly impact the society (M2: MUK Academic).

Evidently, coercive isomorphism is at play given that academics are compelled by oversight control from the institution and donors to structure the practice. Donors seek for knowledge useful to society, which McCann et al (2015) associates with the growing quest for relevance of knowledge to society in the knowledge age. This relates to the institutional pressure reflected in the practice as a tool for promotion upon which universities encourage academia to break the ivory tower mentality by disseminating knowledge beyond the walls of academia (Saltmarsh, 2016). This discussion suggests that the needs of contemporary Uganda may be responsible for the trends in the practice of community outreach in MUK.

7.3 Results and Discussion in UWC

The university is entrusted with the generation, preservation and dissemination of systematic knowledge, thus, it is expected to fulfil its mandate by societal advancement (Teichler et al., 2013; Gopaul et al., 2016). South Africa has come up with a number of policies to ensure that universities respond to national needs (Badsha & Cloete, 2011) key to which are policies targeting knowledge led development. Therefore, to understand the position of the academic profession in UWC to this effect, I examine academics views on the practice of research, teaching and community outreach to identify trends. Data analysis revealed four themes, eleven subthemes with corresponding categories. Table 7.2 provides details to this effect.

7.3.1 Research in the University of the Western Cape

7.3.1.1 *Dynamic Elements in Research*

This theme captures the emerging developments in the practice of research in UWC. There are four aspects to this effect, the approach to and the tool for research. At the same time are national and institutional needs that are setting the foundation to the developments in the practice. These aided the understanding of the course of academic research in the university in the past decade. The ensuing subsections provide further details to this effect.

Table 7.2: Themes, Subthemes and Categories in Research, Teaching and Community Outreach in UWC

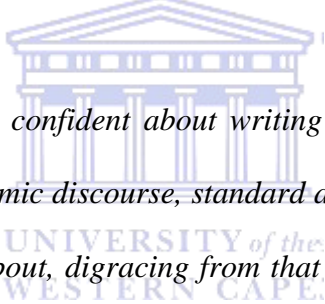
Theme	Subthemes	Categories	Analytical framework
Dynamic elements in academic research	Approach to research	Small to a broader audience Basic to applied research Motivation to the contemporary practice	Coercive, mimetic & normative isomorphism
	Research funding	Demand for applied research by funders Government push for innovative research	
	Research output	Accountability as a public servant Publish or perish slogan	
	Tools for research	Internet easing communication and access to information	
Dynamic elements in teaching	Teaching styles	Lecture method to problem based teaching Mixture of teacher and student centered teaching styles Technology assisted learning	Mimetic and normative isomorphism
	Technology	Online access to the curriculum Limited student information technology skills ICT in the teaching and learning process	Mimetic isomorphism
	Nature of graduates	Refresher courses for academics Embracing technology in teaching and learning Focus on graduate attributes Repackaging the curriculum	Coercive isomorphism

Nature of community Outreach	Outreach as a secondary practice	Lack of a permanent place in academia Outreach as a delegated responsibility Academics too busy for outreach	
	Social responsibility	Life skills training Bottom up projects in communities Integration of outreach in academic work Research based outreach	Normative isomorphism
	Career growth	Academic mandate in a university Quest for promotion Contrast in promotion criteria	



7.3.1.1.1 Approach to Research

The findings indicate that individual academics are taking the initiative to adjust the approach to research to a more practical stance in UWC. This is consistent with the views of a number of participants key to which are participants P9 and P7. Participant P9 describes a shift from the fundamental to a more practical approach to research in the humanities. This academic boasts about an existing broad readership but still feels the need to write for an audience beyond the science community, which speaks to a professional evaluation consistent with normative isomorphism. At the same time, participant P7 describes the pressure to do applied research yet indicates a preference for it. This academic presents himself as a victim of the system that adheres to the standards of the practice suggesting normative and coercive isomorphism upon which academics perceive and infuse emerging ideas into actions (Dacin et al., 2002). The identified participants stated:



Ten years ago, I was confident about writing for a broader readership. I was writing more of academic discourse, standard academic discourse whereas now I feel more confident about, digressing from that narrow range....it is not so much what the subject of my research is because I have been looking at environmental questions all time but it's more how I present it (P9: UWC Academic).

There is more and more of a push for us to do research not just for the sake of doing research. I am not being critical of basic research, basic and curiosity driven research are still very important because they work at the realm of trying to understand hysteric problems, it is just that as a researcher, I work very much in the applied domain (P7: UWC Academic).

This provides empirical evidence of the shifting priority towards applied research. The results to this effect corroborate the findings of Onyanha (2020) that established that knowledge produced in universities in subsaharan africa is increasingly aligning to the sectors considered

key to development. At the same time, Mashau (2018) established that universities in South Africa are producing more of knowledge applicable to the social and economic challenges in the country. Thus, academic research in UWC may be changing in line with applied research that serves the needs of the South African society.

7.3.1.1.2 Research Funding

The findings indicate a change in the academic research due to the nature of knowledge required for national development. It emerged that the funder specific to the government prefers research responsive too socio-economic challenges, which has compelled academics in the university to make a shift in practice. Henceforth, participant P7 one of the salient contributors to this issue demonstrates awareness to the national policy guidelines that bind him to shift to applied research. Participant P2 further describes fundable research as application oriented which points to external pressure in shaping the trajectory of academic research in the university. Evidence to this effect states:

As a researcher working in a publically funded university, there is increasing pressure from the public funder that is government for universities to be making a difference. If you look at the National Development Plan, the White Paper on Higher Education and Post School Training, you see that all of them talk about universities being the dominant producers of knowledge in society. From a policy perspective, we are viewed as the dominant producers of that knowledge; we are also viewed as those who need to use the knowledge to drive social and economic development, for me it means working in an applied way to produce knowledge that makes a difference. So, from a perspective of expectations of the stakeholders involved in higher education especially those of government, there is a push to demonstrate that money is making a difference (P7: UWC Academic).

It depends on what the funders are for, we get most of our funding from NRF [National Research Foundation], they are also moving more towards applied, multidisciplinary and collaborative research] (P2: UWC Academic).

Evidently, there is a strong relationship between academic research and the national needs. This points to coercive isomorphism given that the government as an oversight agency and financial controller is baiting institutions with funds to comply with its demands (Acer & Güçlü, 2017). The results to this effect corroborate with Muller (2012) and Pouris and Ingleslotz (2014) and Bank (2018) that recognised universities as major drivers of knowledge systems with capacity to contribute to national development in South Africa. Thus, government funding may be directing academic research towards the applied orientation as a leap towards national needs one of which is knowledge led development.

7.3.1.1.3 Research Output

The findings indicate that university authorities are pressuring academics not just to publish but also go for applied research. This issue emerged from the views of several participants including participant P2 and P10. Participant P2 points to a drive to prioritise applied over basic research in the university. The pressure emanating from the institution leadership depicts control consistent with coercive isomorphism as a force driving the shift in practice in the university. Participant P10 on the other hand describes a trap in the craze of publication as the university seeks to legitimise its service (Acer & Güçlü, 2017). The cited participants noted:

From the university side, there is a lot more emphasis on the fact that you can't work for years and just do basic research, you have to look at doing something which can either become a product or...use it to develop new policies. (P2: UWC Academic).

At the institutional level, there is a drive to publish or perish and the value base is still publication (P10: UWC Academic)

Evidently, the production of applicable knowledge in tandem with maximising publications are salient to the university. This finding corroborates with the findings of Deiacco, Hughes and McKelvey (2012) that noted the commitment of universities among other entities to incorporate local, regional and national interests in their work, research inclusive. Related results were established by Swartz, Ivancheva, Czerniewicz and Morris (2019) who established the pressure on universities to serve national interests in the ongoing debate of the “core business” of contemporary South African public universities. Thus, the nature and quantity of research output may point to a maximised applied path because UWC is rising to the needs of contemporary South Africa.

7.3.1.1.4 Tools for Research

Tools for research is used in this study to mean information and communication technology use in the research process. The findings indicate a shift from the use of hardcopy information sources to internet sourced information in the research process. The description of the participants key to this issue that is, P6 and P8 create a sense of inevitability given that ICT simply rendered hardcopy information almost obsolete. This points to mimetic isomorphism given that the academics simply had no choice but to identify with ICT as their peers. The evidence to this effect states:

If you can think about the fact that in the past if you [are to] write a journal article, you needed to go to the library and look for a hard copy of the journal, now you can literally sit behind a computer and access articles. In terms of computations...the speed is faster, so the tools have improved considerably and what we write now is available to a bigger audience because of social media and the internet as platforms of dissemination of ideas (P6: UWC Academic)

When I think of the time when I did my Masters, 1995-97, it was actually very hard to get access to the right information that you wanted because unless you were somebody that was immersed in the field in which you were looking at, you wouldn't have known about particular articles or papers or research that people had done. These days with the internet, you can search so much more easily, people use google scholar, Sci-Hub (P8: UWC Academic).

This provides empirical evidence of the change ICT has extended to academic research. Croucher and Woelert (2016) attribute the technology revolution in contemporary universities like UWC to the conformity to the technological pressure of the knowledge age. The findings are in line with the discovery of Sarkar (2012) about the role of ICT in the changing research process in the higher education sector. Relatedly, an examination of ICTs and the South African higher education landscape revealed an increased interest in ICT in the research process (Czerniewicz, Ravjee & Mlitwa, 2007). Thus, the changing research through technology in UWC may be part of a trend in the higher education sector consistent with the knowledge age.

7.3.2 Teaching in the University of the Western Cape

In this subsection, I examine academics view on teaching in the past decade to identify the trend of practice. Data analysis revealed two themes associated with four subthemes and categories in the University. The details to this effect are as presented in Table 7.2.

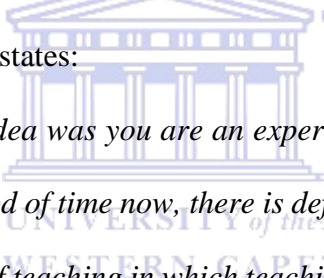
7.3.2.1 *Dynamic Elements in Teaching*

This theme captures the developments in the practice of teaching in UWC. There are three aspects identified with the shift in practice, the first involve the teaching styles that are aligning more to the student-centered end. The second is the revolution in the teaching learning process due to technology. The third covers counter measures for the emerging nature of graduates

required in the contemporary work environment. Thus, examining the three aspects aided the identification of the trajectory of the practice.

7.3.2.1.1 Teaching Styles

The findings indicate a shift from the teacher to the learner-centered approach to instruction; however, other academics also point to a mixture of both with technology as an aiding tool. That is, participant P7 reminisces an academic as a custodian of knowledge whose role is currently levelled to a facilitator of knowledge. The academic classifies the shift as major, which points to a decision to go along with an emerging norm among peers consistent with mimetic isomorphism. Participant P8 also describes a new approach to the practice specific to blended learning. This academic definitely prefers technology in creating an interactive class, which is in line with the effects of the knowledge age on contemporary teaching (Ng et al., 2016). The evidence to this effect states:



Previously the basic idea was you are an expert you go to the classroom and you teach, but over a period of time now, there is definitely a major shift towards more constructivist modes of teaching in which teaching is seen as an act of empowering the learner (P7: UWC Academic)

I do try may be ounce a semester a free classroom approach where students are given readings beforehand or YouTube videos to look at and to come to the classroom to answer questions. Yes, most of the time, I see the equivalent of chalk and talk going on in classrooms, [but] I try to make my classes much more interactive, I will get students for example to listen to a podcast in the lecture period and we will have questions that they have to answer from the podcast... (P8: UWC Academic).

Evidently, student centered instruction dominates the practice in the university. This possibly explains why eLearning projects and refresher courses for academic staff meant to improve the study experience of students are on increase annually in the university (UWC, 2012; 2016a; 2017; 2018). This finding resonates with the findings of Alam (2016) and Hénard and Roseveare (2012) that noted the increasing focus on learner centered methods that allow learners to build their own understanding of course content. This the three studies further identify as a recipe for the creativity required among learners in the contemporary age. Thus, teaching in UWC may be shifting towards learner-centered instruction in response to the needs of contemporary South Africa, one of which is knowledge led development.

7.3.2.1.2 Technology

The findings indicate that UWC has availed facilities to foster the teaching and learning process online, despite challenges to the endeavour. Consequently, participant P4 and P1 describe issues specific to limitations of access, knowledge and skills of ICT among students mostly off campus. The rather guaranteed access on campus depicts the university commitment to digitalising the teaching and learning process. This suggests coercive isomorphism given that academics have to abide by the institution initiative. The evidence to this effect states:

So, we know for example that our university, there is a very big push towards online access to the curriculum but off campus; students do not have access for obvious reasons, so how does one address such issues? Then we also have whether we like it or not a large group of students that are very insecure about their academic and IT skills (P4: UWC Academic)

I think everyone is always on the internet and we also use it in classrooms and I think we have kind of lost some of the students who are not willing to come to class anymore and want everything online but because of copyright, you cannot put the textbooks on line....what is even worse is that at UWC, a lot of students do not have

computers so there is difficulty that students want everything on the internet and online and easy but most of my students do not have personal computers and the internet at home (P1: UWC Academic).

Evidently, technology is influencing the teaching and learning environment in the university despite emerging challenges. This finding is in line with the findings of Bozalek, Ngambi and Gachago (2013) that established that emerging technologies have an enhancing effect on pedagogical practices of faculty despite constraints limiting academics willingness and ability to adopt emerging technologies. Mouyabi (2011) also established that though challenges exist, the teaching learning process is benefiting from technology. This suggests that UWC may simply be joining the trend of contemporary South African universities using ICT in teaching and learning with challenges unique to its context just like other institutions in the country.

7.3.2.1.3 Nature of Graduates

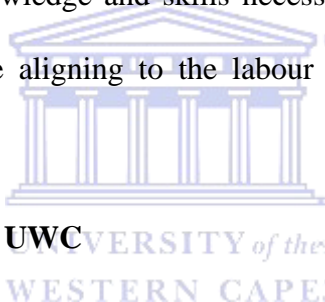
The idea that education needs to respond to the needs of society is common rhetoric across the globe (Mansour, 2016). He further observes that faculty are required to understand the emerging challenges and equip learners with the right knowledge and skills. Henceforth, the findings indicate that teaching is tailored to the labour market demands. It thus emerged that the knowledge and skills passed unto the learners are guided by the attributes desired of the twenty first century graduate and national professional bodies like SAICA (South African Institute of Chartered Accountants). The evidence to this effect is consistent with the views of participant P2 and P5, they noted:

I do try to make a point of keeping up to date with the kind of jobs that are there they graduate with employable skills, so we always look at the graduate attributes (P2: UWC Academic).

We are very much influenced by SAICA - that is our profession body... when they change, we change, what they have changed now with in the country is that they

have realised that you cannot just focus on shareholder wealth, a company needs to consider more than creating money for shareholders; it has to consider socio-economic factors, the environment; that is now incorporated into what companies have to consider at a broad level, that is considered by SAICA so we have to teach our students to consider more than just financial matters (P5: UWC Academic).

Evidently, coercive isomorphism is at play given that market forces shape academics' pedagogical choices. This finding corroborates the findings of Alam (2016) that established that teaching must foster critical thinking, problem solving, entrepreneurship and adaptability in order to create workers fit for the contemporary work environment. Beck (2008) also established that faculty must have deep knowledge capacity; creativity and ingenuity in order to produce workers with the knowledge and skills necessary for the contemporary society. Thus, teaching in UWC may be aligning to the labour market in response the needs of contemporary South Africa.



7.3.3 Community Outreach in UWC

In this subsection, I examine academics views on community outreach in the past decade to identify the trend of practice. Data analysis revealed one theme associated with three subthemes and categories in the University. The details to this effect are as presented in Table 8.2.

7.3.3.1 Nature of Community Outreach

This theme captures the perceptions of academics about community outreach in UWC in the past decade. It emerged that academics attach little value to the practice given that none could describe what he/she had done over a ten-year period. This set the precedent for understanding and describing the current practice in the university.

7.3.3.1.1 Community Outreach as a Secondary Practice

The findings indicate that community outreach in UWC is an obligation that could otherwise be ignored for either teaching or research. It thus emerged that time allocation for academic work seems fair for all but community outreach. Participant P6 for example indicates limited interest in the practice justifying the argument with an assumption that other academics exhibit similar distaste. Another participant P8 indicates a heavy workload as a limiting factor for the engagement in the practice. The evidence to this effect states:

I have not engaged much in community outreach, I think of all the three things academics do, teaching, research and outreach, community engagement has been something that has not really had a permanent place in my academic life and I think it is true for most academics (P6: UWC Academic).

I think firstly that lecturers especially at UWC are too busy. I have forced myself this year to get involved with community outreach projects like the school but half way through the year, I have to say I am so swamped I just cannot, in as much as I would like to, I just cannot; I am supervising eleven Masters and PhD Projects, I am the Head of Department, I am teaching six courses, it is just so much (P8: UWC Academic).

This provides empirical evidence of the laxity in the practice of community outreach in UWC. This finding contrasts the findings of McCann et al (2015) and Piirainen et al (2016) that observed the growing quest for the social economic impact of universities, which requires academia to actively engage with the society to produce knowledge worthy of tackling societal challenges. This suggests that the current practice of community outreach for some academics in UWC may not be living up to contemporary expectations of academia for society.

7.3.3.1.2 Social responsibility

The findings show that some academics in the university give back to the community through community outreach. It emerged that it is through research that academics challenge the status quo by generating knowledge to tackle specific societal issues. Thus, the participant key to this debate including P1 and P7 describe an outreach agenda built on expertise, which suggests normative isomorphism. This is because these particular academics engage with the community by standard measures of professionalism. That is why it is only knowledge and expertise put to use in the process. The views of the participants to this effect state:

I work with an organisation on the legalisation of prostitution, so I use my research to try to help them draw legislation to decriminalise prostitution (P1: UWC Academic).

I have always tried to do community outreach in a way in which it supports the research objective. Let us take two concrete examples; I have an ICT development- what we call public access ICT models and there is a community ICT hub for poor communities and I am interested in measuring how these things add value (P7: UWC Academic)

Evidently, some academics in UWC are taking a practical approach to community outreach. This finding corroborates the findings of Perkmann et al (2013) and Tijssen et al (2017) that established that it is increasingly becoming important for academia to demonstrate its worth by linking the university to society through knowledge and expertise. Thus, like all other contemporary universities looking for social credibility, (Fitzgerald et al., 2016), academics in UWC are creating an environment in which their knowledge permeates the boundaries of the science community.

7.3.3.1.3 Career Growth

The idea of university community relations has gained more ground in the African higher education landscape due to the growing expectation for universities to contribute to national and global knowledge economies (Mugabi, 2015; Mtawa et al., 2016). Thus, Mtawa et al (2016) suggest that the university national development agenda will only be fulfilled if community outreach is grounded in the core policy and practice of a university. While UWC has taken the initiative through the appointment and promotions policy clarifying its position on the subject of community outreach (UWC, 2008), the views of interviewed academics suggest otherwise. The findings indicate that the quest for promotion determines the importance attached to community outreach in the University. That is, while some academics feel that they must fulfil the obligation of exercising the practice for promotion, others feel that they have to ignore it to secure more time for research still with an end goal of promotion in their career. The views of participant P1 and P10 give further details to this effect:

It is one of the three things you have to do. I have been told a number of times that it is expected from you and I was part of promotion meetings where that was discussed. So, it is definitely not something that you can just have in the contract and it is not expected from you.... I think some people do it because they have to, if I didn't have that requirement, I would probably neglect it because I don't want to do it because of limited time (P1: UWC Academic).

It is a lot of hard work but you are not going to get promotion on community engagement no matter you change things out there, you get promotion on how many publications have NRF ratings. I think what has shifted for me is having to find time to be innovative in my teaching and do research and scholarship around my research and community engagement, I need to write more on what I have done (P10: UWC Academic).

This provides empirical evidence of the controversy surrounding community outreach in UWC, which may explain the relatively low commitment to the practice in the university. The results resonate with the findings of Machimana, Sefotho and Ebersöhn (2018) who established that the lack of scope of expectation was limiting faculty community interaction. Nkoana and Dichaba (2017) also established that the poor conceptualisation of community outreach is a limiting factor to its operationalisation. This suggests that community outreach in UWC may not fully serve intended interests at the institutional and consequently national level.

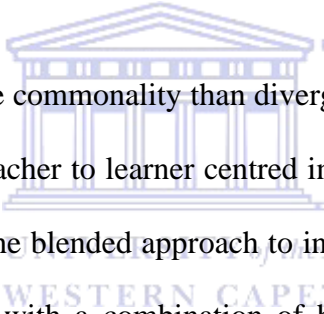
7.4 Comparative Analysis of the Trends in the Academic Profession in MUK and UWC

The discussion on the themes that emerged from the academics' views show both areas of commonality and divergence in the trend of the practice of research, teaching and community outreach in MUK and UWC 2007 through 2018. In terms of research, the trends show more areas of commonality than divergence. That is, there is an acknowledged shift in practice specific to the progressive alignment towards applied research in both universities. This trend seems to cut across both the natural and social sciences given the pattern of views specific to the departments of Law and Chemistry for MUK; English and Information Systems for UWC. The commonality in practice simply attests to the idea that units subjected to the same environment conditions are likely to exhibit similar characteristics (DiMaggio & Powell, 1983), given the policy needs of the rising knowledge society in Uganda and South Africa.

The examination of the realm of commonality further shows that ICT is identifiable with the course of contemporary research in the two universities. The academics portray it as a decisive point for the shift from a complete use of hardcopy information to digital sources of information in the research process. There are two points of focus in this aspect; the first is that the technological pressure created a sense of inevitability, which compelled academics to fit into the emerging norm among peers. Hence, mimetic isomorphism emerged as the main force behind academics' choices that led to shift in the practice in the two universities. The second

is that literature identified the technological revolution in research with the knowledge age suggesting that the emerging trend in academic research may be due to the rising knowledge society in Uganda and South Africa.

Relatedly, donors emerged as the underlying factor shaping the practice of research in the two universities. While donors in MUK represent bodies like the Carnegie Corporation of New York, Consortium of Advanced Research Training in Africa among others, in UWC, the concept was limited to government through bodies like NRF. Thus, there is an implied element of coercion guiding academics shift from basic to applied research in both institutions. However, the discussion also suggests that the resultant knowledge may be serving foreign than government interests in Uganda than South Africa due to the nature of donors for each university.



In terms of teaching, there is more commonality than divergence in the two universities. That is, there is a general shift from teacher to learner centred instruction. However, academics in MUK seem to also make use of the blended approach to instruction. Yet academics in UWC seem to have an open approach with a combination of both learner and teacher centered instructional styles. Regardless of the difference, academics in both institutions seem to target the training of workers fit for the contemporary work environment. This is portrayed in the focus on curriculum reform, graduate attributes for the twenty first century and fostering ICT literacy. The identified initiatives suggest a quest to keep up with the tide upon which mimetic and normative forces emerged as key drivers of the practice in the two universities. Thus, it is possible that academics in MUK as the leading institutions in the country (Bisaso, 2017) may be looking unto peers better positioned in universities beyond the national level to the continental and national levels. Academics in UWC on the other hand may be looking unto peers in the leading institutions in South Africa and beyond, MUK inclusive.

In terms of community outreach, there are both divergent and common aspects in the two universities. MUK exhibits a clear shift in practice portrayed from a one way to a symbiotic way of sharing knowledge between academia and society. A shift is further reflected in the use of ICT as a tool in running the practice. UWC on the other hand exhibits no change at all; this is due to rather low levels of interest expressed about the practice. Thus, most academics could not identify what they had done in practice over a ten-year period. However, some indicated interest motivated by social responsibility and career growth. The difference emphasizes the uniqueness of each of the two institutions, as the practice is more institutional than national bound. Important to note though is that professional expertise guided the practice among the active academics in both universities.

7.5 Conclusion

This chapter focused on establishing the trends in the academic profession in MUK and UWC 2007 through 2018. The themes that emerged from the views of academics on research, teaching and community outreach were examined per institution and later compared. The neo institutional perspective guided the analysis with specific focus on the isomorphic forces at play in a given academic practice.

In respect to MUK, it emerged that there are changing and blended aspects in the practice of research. That is, there is a progressive shift from basic to applied research shaped by ICT, donor and government interest suggesting coercive forces at play in shaping the practice. At the same time, it emerged that isomorphic forces are sometimes overruled by individual interest given the expressed interest in sticking to basic research among some academics in the university. In terms of teaching, there are dynamic elements specific to a rather normative shift from teacher to learner-centered instruction. The practice is tuned to the profile of the learners, technology and the coerced focus on the nature of graduates required in contemporary societies.

In terms of community outreach, there is a shift in practice specific to professional expertise rendered in knowledge sharing with the community.

In respect to UWC, there are dynamic elements in academic research specific to a progressive shift from basic to applied research. The contribution of ICT and the coercion from the funder as well as the maximisation of research output in the realm of applied research further shape the practice. In terms of teaching, there are dynamic elements specific to a shift from teacher to the learner-centered approach to instruction. The use of technology emerging from a quest to survive in contemporary teaching landscape and the coerced focus on the nature of graduates produced define the practice further. In terms of community outreach, there is low interest expressed by academics and those who endeavour to do it rely on professional expertise to either give back to the community or boost their career.

Thus, academic research in both institutions is progressively shifting to the applied end coerced by oversight agencies like government, which suggests that the trajectory is possibly in response to the policy needs in Uganda and South Africa. The practice of teaching in the two universities is shifting towards learner-centered instruction as a mechanism of legitimising teaching to produce a graduate fit for the contemporary work environment. The practice of community outreach is changing in MUK contrary to UWC. This is due to the uniqueness of each of the two institutions, as the practice is more institutional than national bound.

Chapter Eight

Summary and Conclusion

8.1 Introduction

In this chapter, I present the findings, conclusions and implications of the study. Thus, I relate the study purpose to the registered results. I summarise the findings in relation to the theoretical framework. I further present the contribution of the study and the direction for future research. The ensuing subsections provide further details to this effect.

8.2 Summary of the findings of the Study

The twenty first century as a knowledge era has prompted nations across the globe to embark on building knowledge societies regardless of their level of development. Consequently, higher education is at the center of national economic plans in Africa challenging it to contribute towards the emerging knowledge societies given that universities are still the main source of knowledge in Africa. At the center of this debate is the evidence in literature of the academic profession through research, teaching and community outreach, which is changing as the university rises to the demands of the knowledge age. However, the debate to this effect is presented from mostly a western perspective prompting this study to focus on the African experience. This is specific to Uganda and South Africa due to the common knowledge society agenda in the past decade despite the difference in development as agricultural and industrial economies respectively.

Thus, I investigated if the academic profession in Makerere University and the University of *the* Western Cape is changing in response to the policy needs of the rising knowledge society in Uganda and South Africa in the past decade. The neo institutional perspective guided this study because its tenets allowed the understanding of the process upon which environmental pressure brings about change in organisational/university operations. Its focus on the agency

of actors like academics who assign objective and subjective meaning to actions suggested the use of mixed methods. This was coupled with a cross-national element to understand trends across institutions in different countries, Uganda and South Africa.

It is therefore through document analysis, survey and interview data collected at individual, institutional and national level that three sub-questions were examined from neo institutional perspective to answer the study question. The first sub question focused on the response of academic profession to the policy needs of the rising knowledge society in the two countries. The second focused on the nature of the academic profession in the two universities. The third focused on the trajectory of the academic profession in the two universities. The findings showed areas of commonality and divergence in the practice of the academic profession in the two institutions as presented in ensuing sub sections.

8.2.1 Response of the Academic Profession to the Policy Needs of the Rising Knowledge Society in Uganda and South Africa.

The study established that there are more areas of commonality than divergence in the response of MUK and UWC to the policy needs of the rising knowledge society in Uganda and South Africa. The results tally with the assessment of policy needs including knowledge expansion, innovation, human capital development, the adaption and use of ICT in education and development. These are consistent with national policies on ICT, science, technology and innovation, human resource development and the national development plan/s of both countries. Thus, emerging themes were examined against the documented practices of the academic profession in the two universities. The pattern of response depicts relative conformity to the environmental pressure characterised by isomorphic forces that shaped the course of practice in qualitative and quantitative terms.

In the realm of knowledge production, there is progressive increase in publications, which is a demonstration of commitment to research for the generation of knowledge required at the national level (see Figure 5.1 and 5.8). This is associated with two issues; the first is that as public institutions, MUK and UWC can only remain relevant to the funder, the state by taking interest in national needs key to which is knowledge production. Hence, the state is playing a coercive role in directing the research priorities of the two universities and consequently the academics. Second, the evidence in literature shows a rare commitment to research across the globe originally motivated by entrepreneurialism in universities (Kirby, Guerrero, & Urbano, 2011; Ek, Ideland, Jönsson, & Malmberg, 2013; Kauppinen, 2014). This has however been heightened in contemporary academia by the growing quest for knowledge attributed to the knowledge age (Bastalich, 2010; Cernat, 2011; Gibbons et al., 2011; Altbach, 2013; Snellman, 2015). The academics caught between regimes of change are drifting with common practice among peers including those in the two universities.

There are two further points to note, the first is that UWC produces more publications than MUK. The quantitative difference may rest in the economic difference between Uganda and South Africa as agricultural and industrial economies respectively. This may affect the quantity and quality of staff, research infrastructure and logistics as well as the volume of knowledge required at national level leading to the difference in output between the two institutions. The second point is that the suggested high knowledge production does not tally with the rate of innovation, which is relatively fair by institutional standards but less by national standards in both institutions. Thus, pressure from the environment more so from the government on public universities is sometimes overruled by institutional reality. Thus, MUK and UWC are not fully serving national policy needs due to their limited capacity to innovate.

The attempts at human resource development show a mismatch between the actual and the desired graduates in quantitative and disciplinary terms in the two universities. The evidence

on enrolment and graduation shows low figures in the desired science related fields compared to the arts more so at undergraduate level (see Figures 5.5, 5.6 & 5.12). At the postgraduate level, MUK has made relatively fair progress compared to UWC given that 2016 through 2018; entrants in the science related fields outnumbered those in the arts in the university. Nevertheless, both institutions are choosing not to be cornered, they are pressured to fulfil the national policy need but still end up with the flow. That is, they still recruit more from the arts fields because students are more readily available in the sector. Thus, environmental forces may not be the absolute determinant of the trends in contemporary academic practice in the two universities.

Relatedly, there seems to be a general commitment towards institutionalising ICT however, the approach may be the point of divergence between the two universities. That is, ICT use is part of the teaching and learning process, research and knowledge transfer in the two universities. However, the underlying process seems to be unique to each institution. MUK comes off as an institution taking on a new task as the process starts with basic training for staff, as for students, they are not only challenged to build the competence but also have an option of taking on programmes dedicated to ICT (see Figure 5.7). This suggests that a number of students acquire basic ICT knowledge and skills from the university, which explains the approach. The UWC process has an element of staff training, which may resonate with possible members being digital migrants rather than natives but in general, both staff and students seem to be building on existing experience. Overall, the two universities seem to be doing well in preparing learners for the university learning environment and the contemporary ICT driven work environment.

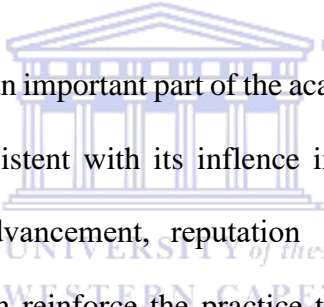
There are both shortfalls and relative contributions to the cause. Therefore, it is plausible to say that the two universities have made a fair attempt at serving national interests. The study therefore concludes that MUK and UWC might be moderately responding to the policy needs of the rising knowledge society in Uganda and South Africa.

8.2.2 Nature of the Academic Profession in MUK and UWC

This study established that the features of the academic profession are more similar than different in MUK and UWC. The findings in this section were a result of the descriptive analysis of academic research, teaching and community outreach in the two universities. The survey data utilised generated percentages that were used to identify the features compared in the two universities. In terms of research, it emerged as a key component of academic work portrayed in two sets of characteristics in both universities. The first portrayed it as leaning more towards mode 2 knowledge production given the progressive focus on applied research, collaboration and multi/interdisciplinarity (Nowotny et al., 2003; Gibbons et al., 2011; Ozga, 2011; Schoonmaker & Carayannis, 2013).

The second portrayed it as aligning more with contemporary developments in research. That is, the focus on a teaching research nexus in both universities, the commercialisation of research, though more pronounced in MUK than UWC, and funders dictate the course of research in both universities. There is an emerging interest in innovation, though the results are still relatively low in both universities. At the same time, the contribution to scholarly work, that is publications and PhD production is more prominent in MUK than UWC. These features are associated with entrepreneurship in universities given the influence of the funders on academic research (Grépin et al., 2017) and the competition in publication and PhD production (Turk & Ledić, 2016). However, the aforementioned has been heightened by a growing demand for knowledge and innovation in the contemporary society (Stehr, 2009; Cernat, 2011; Kauppinen, 2014; Snellman, 2015; Hauge, 2016). Consequently, knowledge societies are emerging as major influencers of academic work. Therefore, academic research in MUK and UWC is leaning more towards mode 2 knowledge production and the knowledge age.

Teaching emerged as a major component of academic work split between two major sets of characteristics in the two universities. The first set portrayed a heavy workload managed on an oscillation between teacher and student centered instruction in UWC than MUK. The second set of features portrayed alignment towards performativity. This is portrayed in the institutional control over teaching through teaching hours, class size, consultation, Masters and PhD supervision, and availability at the institution though the pressure might be higher in MUK than UWC. At the same time, quality control measures rooted in disseminating practically oriented knowledge and skills, a teaching research nexus, a problem based curriculum and incorporating international perspectives in content is more pronounced in UWC than MUK. Thus, teaching rests more on learner centered instruction and performativity in MUK than UWC.



Community outreach emerged as an important part of the academic and social life of academics in both universities. This is consistent with its influence in the selection of research areas, teaching assignments, career advancement, reputation and the academics' discipline. Henceforth, teaching and research reinforce the practice though this is more in MUK than UWC. Thus, it emerged that academics' knowledge and expertise might be addressing societal concerns at the local, national and continental levels. However, this is not devoid of shortfalls consistent with the limited academic engagement and innovation in both universities.

Therefore, this study concludes that, academic research has more common than divergent features and its practice is leaning more towards mode 2 knowledge production and the demands of the knowledge age in both universities. Teaching rests more on learner centered instruction and performativity in MUK than UWC. Community outreach is an important part of academic life upon which the community benefits more with MUK than UWC academics. Nevertheless, the academic profession portrays more common than divergent features in both universities.

8.2.3 Trajectory of the Academic Profession

The findings in this section are about the course of academic research, teaching and community outreach in MUK and UWC, 2007 through 2018. Examined from a neo institutional perspective, the findings showed embraced isomorphism as a survival mechanism in the practice of the academic profession in the two universities. The findings to this effect reflected both areas of commonality and divergence in the two universities.

In terms of research, there is an acknowledged shift in practice specific to the progressive alignment towards applied research in both universities. This trend seems to cut across both the natural and social sciences given the pattern of views specific to the departments of Law and Chemistry for MUK; English and Information Systems for UWC. The commonality in practice attested to the idea that units subjected to the same environment conditions are likely to exhibit similar characteristics (DiMaggio & Powell, 1983), given the policy needs of Uganda and South Africa as they embark on constructing knowledge societies.

The realm of commonality further show that ICT defines the course of contemporary research in the two universities. The academics portray it as a decisive point for the shift from a complete use of hardcopy information to digital sources of information in the research process. There are two points of focus in this aspect; the first is that the technological pressure created a sense of inevitability, which compelled academics to fit into the emerging norm among peers. Hence, mimetic isomorphism emerged as the main force behind academics' choices that led to shift in the practice in the two universities. The second is that the technological revolution in research is associated with the knowledge age (Luić & Glumac, 2009; Carlaw et al., 2012) suggesting that the emerging trend in academic research may be due to the rising knowledge society in Uganda and South Africa.

Donors further emerged as the underlying factor shaping the practice of research in the two universities. While donors in MUK represent bodies like the Carnegie Corporation of New York, Consortium of Advanced Research Training in Africa among others, in UWC, the concept was limited to government through bodies like NRF. Thus, while academics in both institutions felt coerced to shift from basic to applied research, the resultant knowledge might be serving foreign than government interests in Uganda than South Africa.

In terms of teaching, there is a general shift from teacher to learner centred instruction. However, academics in MUK also make use of the blended approach to instruction. Yet academics in UWC seem to have an open approach with a combination of both learner and teacher centered instructional styles. Regardless of the difference, academics in both institutions seem to target the training of workers fit for the contemporary work environment. This is portrayed in the focus on curriculum reform, graduate attributes for the twenty first century and fostering ICT literacy. The identified initiatives suggest a quest to keep up with the tide upon which mimetic and normative forces emerged as key drivers of the practice in the two universities.

In terms of community outreach, MUK exhibited a clear shift in practice portrayed from a one way to a symbiotic way of sharing knowledge between academia and society. The shift was further reflected in the use of ICT as a tool in running the practice. UWC on the other hand exhibited no change at all; this is due to rather low levels of interest expresses about the practice. Thus, most academics could not identify what they had done in practice over a ten-year period. However, some indicated interest motivated by social responsibility and career growth. The difference emphasizes the uniqueness of each of the two institutions, as the practice is more institutional than national bound. Important to note though is that professional expertise guided the practice among the active academics in both universities.

Thus, this study concludes that academic research in both institutions is progressively shifting to the applied end coerced by oversight agencies like government and donors. The practice of teaching in the two universities is leaning towards learner-centered instruction as a mechanism of legitimising teaching to produce a graduate fit for the contemporary work environment. The practice of community outreach is changing in MUK contrary to UWC. This is due to the uniqueness of each of the two institutions, as the practice seems to be more institutional than national bound.

8.3 Interpretation of the Framework for Analysis

This study is anchored on the neo institutional theory. Neo institutionalism stretches the open systems approach that argues that organisations like universities are open to their environment and must achieve appropriate relations with it (Scott, 2003). Neo institutionalism therefore argues that organisations like MUK and UWC have to conform to prescriptions of myths in their environment to acquire legitimacy (Meyer & Rowan, 1977; Powell & DiMaggio, 1991). Henceforth, this study perceived universities as organisations subject to the expectations of their environment to increase their survival prospects (Papadimitriou, 2011).

DiMaggio and Powell (1983) note that the quest for legitimacy forces organisations to become isomorphic based on three mechanisms. The first is coercive isomorphism that stems from political influence. The second is mimetic isomorphism that stems from standard response to uncertainty. The third is normative isomorphism that stems from professionalism that is, the collective struggle of members of an occupation to define the conditions and methods of their work. DiMaggio and Powell (1983) cultivate the assumption that MUK and UWC as organisations either spontaneously or gradually respond to isomorphic forces leading to change which in this case is manifested in the academic profession given that it operationalises university mandate. This prompted this study to establish if there is any change in the academic profession in the two universities emanating from the environment. Literature identified the

‘environment’ as specific to the policy needs of the rising knowledge society in Uganda and South Africa. Relatedly, since the change usually emerge from a gradual response that relate organisations to their environment (Papadimitriou, 2011), this study considered the period 2007 through 2018 to identify trends over time.

Consequently, it was necessary to look into three areas; the first is the extent to which the academic profession in the two universities is responding to the policy needs of the rising knowledge society in the two countries. The second is the nature of the academic profession, which compared to the third area, the trajectory of the academic profession, provide a qualitative and quantitative assessment of the trends in practice in the two universities. Thus, I focused on the tenets of neo institutionalism specifically legitimacy and isomorphism as the framework of analysis. The findings of this study modified the scheme adapted from the mechanisms of institutional isomorphic change (DiMaggio & Powell, 1983) (Figure 3.1) to reflect the experiences of the two institutions under study. Figure 8.1 provides details to this effect.

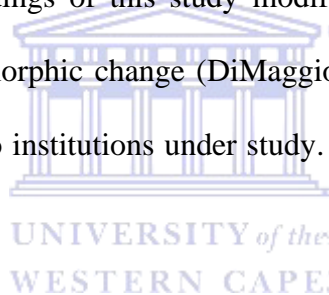


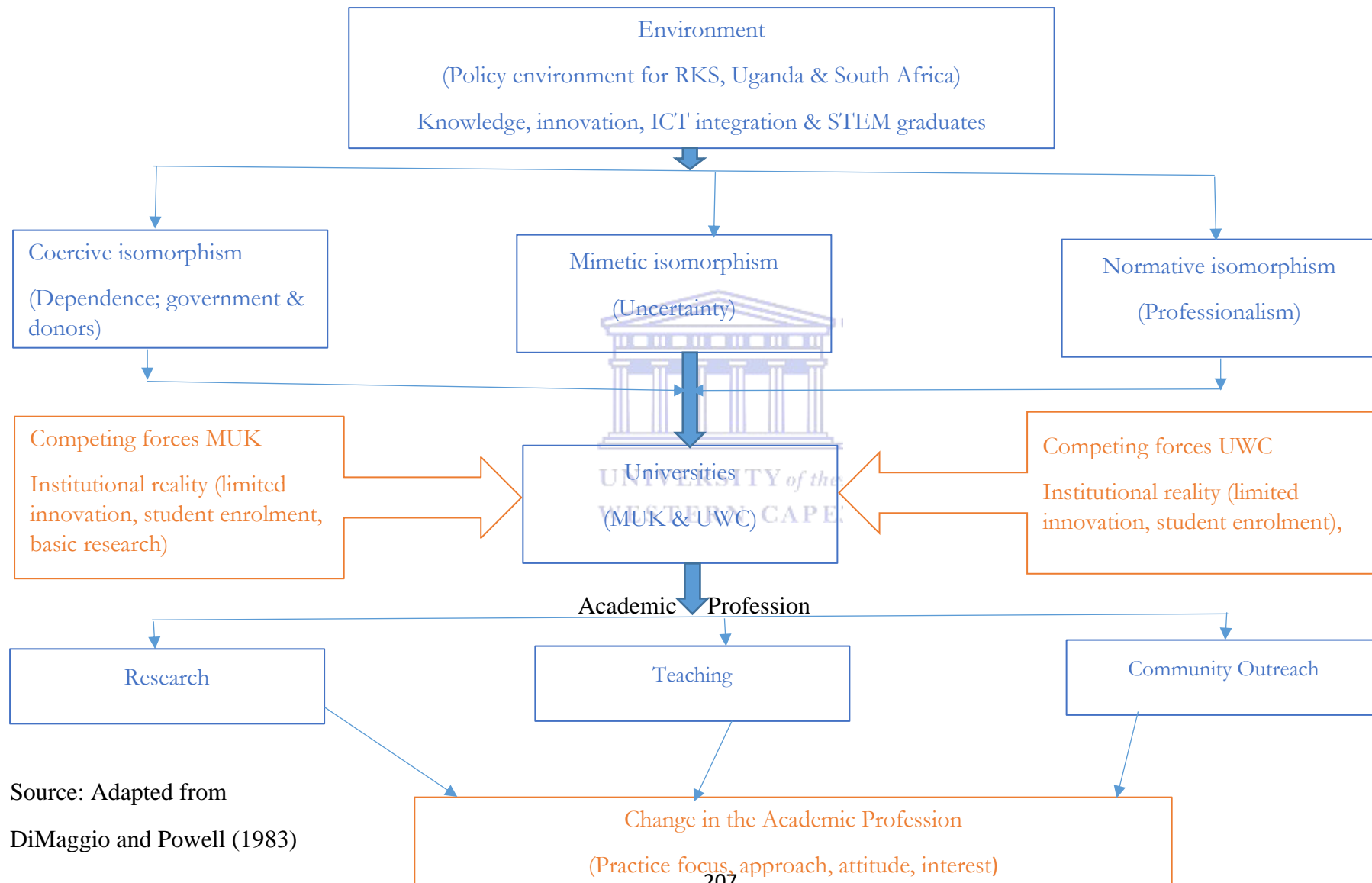
Figure 8.1 shows three layers of influence for the academic profession in MUK and UWC. The first is the policy environment for the rising knowledge society in Uganda and South Africa. The emerging needs specific to knowledge, innovation, ICT integration and STEM graduates has created the pressure upon which universities must respond if they are to remain relevant to the state, the main funder of public institutions. The pressure from the environment is therefore forcing universities to become homogeneous in order to cope with the changing environment.

The second layer of influence is therefore isomorphic pressure upon which universities are coerced into responding to state demands, they mimic institutions better than them to cope and the academic community is encouraged either directly or indirectly to rise to professional etiquette. Consequently, the two universities and consequently the academic profession that

operationalises its mandate are changing due to isomorphic pressure. The third layer of influence for the academic profession is therefore universities given that the pressure exerted on institutions is manifested in academic research, teaching and community outreach in the two universities.



Figure 8.1: Neo Institutionalism: A modified Scheme



Source: Adapted from DiMaggio and Powell (1983)

Henceforth, the response of the academic profession to national policy needs of Uganda and South Africa came from a place of survival. Documented evidence in the national policies show that the two universities are to produce knowledge, relevant human resource, innovate and integrate ICT in the labour fabric of the nation. Thus, documented evidence at institutional level show deliberate initiatives set towards national targets. These include a progressive focus on publication, innovation, enrolment targets and the integration of ICT in the teaching, learning process. This was a necessary step for the two institutions given that they are public institutions with a need for state support. Arguably, the state played a coercive role by directing priorities of the two institutions though the effects of the pressure are not as linear.

That is, three issues emerged; the first is the quantitative difference in knowledge production in the two universities, which might have stemmed from the uniqueness of the demands to the context. The second is the limited innovation at institutional level regardless of the high rate of knowledge production. The third is the failure to maximise human resource in the science related fields due to the high enrolment in arts than science related fields in the two institutions. Hence, environmental pressure was overruled by institutional reality.

The trends in the academic profession are a manifestation of conformity to isomorphic pressure. That is, results on academic research show that its practice is leaning more towards mode 2 knowledge production in both universities, hence a shift from basic to applied research in the two universities. Important to note is that the government and donors emerged as the entities pushing for applied research the kind studies (Scott, 2006; Gibbons et al., 2011; Schoonmaker & Carayannis, 2013) associates with the knowledge age. ICT further emerged as a phenomena engulfing the research process in the two universities with academics choosing to mimic common practice among peers to cope with the technological pressure.

The results on teaching show a focus more on learner centered instruction and performativity

in MUK than UWC. Thus a general shift from teacher to learner centred instruction in both universities. However, academics in MUK seem to make use of the blended approach to instruction. Yet academics in UWC seem to have an open approach with a combination of both learner and teacher centered instructional styles. The commonality in the two institutions specific to the alignment to learner-centered instruction is consistent with the knowledge society that requires learners to play an active role in the teaching learning process to enhance creativity (Bonal & Rambla, 2010; Sahlberg & Boce, 2010). Overall, the initiatives emerged as mechanisms to keep afloat in the changing teaching and learning environment consistent with mimetic and normative forces.

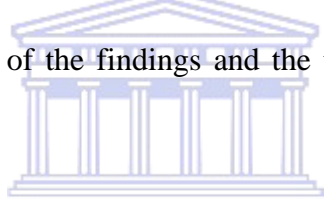
In the same vein, results on community outreach show that it is an important part of academic life upon which the community might be benefiting more from academics of MUK than UWC. The results show that the practice is changing in MUK contrary to UWC due to institutional rather than national pressure. The academics that showed interest in the practice across the two institutions were motivated by social responsibility and career growth consistent with normative isomorphism. Thus, as Figure 8.1 shows, what is changing is the academic profession is the practice focus, approach, interest and attitude.

This discussion has three important points to note, the first is that there were more areas of commonality than divergence between the two institutions which is consistent with the idea that units subjected to the same environment conditions are likely to exhibit similar characteristics (DiMaggio & Powell, 1983). The second is that this study discovered that there are competing forces that contribute to the trends in the practice of the academic profession in the two universities; hence, environmental pressure is not an absolute determinant. The evidence to this effect is reflected in Figure 8.1 about two aspects, institutional reality specific to the limited capacity to innovate, enrolment patterns. Yet unique to MUK, the persistent focus

on basic research. The third is that this study concludes that the academic profession in MUK and UWC is changing plausibly in response to the policy needs of the rising knowledge society in Uganda and South Africa.

8.4 Implications of the Study

The primary argument of this study is that the policy environment targeting the construction of the knowledge society in Uganda and South Africa is creating pressure upon which the academic profession in MUK and UWC is in a dilemma. This coincides with debate in literature of the changing academic profession due to the pressure of the knowledge age. However, the discourse is mostly presented from a western perspective prompting this study to explore it from the perspective of rising knowledge society in Africa. Thus, to establish the fate of the academic profession, this study utilised the neo institutional perspective. The implications of this study are therefore products of the findings and the theoretical framework used in the analysis.



Neo institutionalism posits that organisations are structured by phenomena in their environment and tend to get isomorphic with them leading to change (Meyer & Rowan, 1977; DiMaggio & Powell, 1983; Powell & DiMaggio, 1991). This largely depicts the findings of this study. That is, on exploring the response of the academic profession to the policy needs of the two countries, this study discovered that the government took an upper hand in directing the priorities in the two institutions. However, the coercion involved did not prevent shortfalls in areas like innovation and student enrolment. This implies that the ‘external environment’ might be influencing academic work but institutional capacity checks its impact. Thus, external pressure specific to the policy environment in the two countries might not be an absolute determinant of trends in the academic profession in the two universities.

The trends in academic research in the two institutions depict characteristics like a shift from

basic to applied research, multidisciplinary and collaboration. This was identified with marketization in universities (Cernat, 2011; Kauppinen, 2014; Ndofirepi, 2017) but has been intensified with the knowledge age (Bastalich, 2010; Gibbons et al., 2011; Altbach, 2013). This implies that the neo liberal agenda associated with marketization in Ugandan universities (Mamdani, 2008; Ochwa-Echel, 2013; Bisaso, 2017) might have laid the foundation for the trends in academic research in contemporary MUK. Yet in UWC, the trends seem to be more directly consistent with the demands of the knowledge age.

One of the areas of divergence shows that the funding of research falls more to donors in MUK and in UWC, government. Thus, bodies like the Carnegie Corporation of New York, World Bank and the Consortium of Advanced Research Training in Africa fund most research projects in MUK. On the other hand, NRF, DST among other government bodies fund research in UWC. Thus, it is plausible to say that academic research is likely to serve more of donor than national interests in Uganda than South Africa. Hence, research funding may need revisiting for universities like MUK to serve the national goals.

The trends in teaching reflect a relative shift from teacher to learner centred instruction encouraged in contemporary teaching given that it promotes creativity and critical thinking required in the knowledge age (Laurillard, 2002; Beck, 2008; Alam, 2016). At the same time, ICT is emerging as a key component of the teaching learning process in the two universities. This is associated with the technology revolution in the knowledge age, which has forced educators to cope with the emerging trend in order to prepare learners for the technology driven work environment (The Center for Cross Boarder Studies, 2007). This implies that the trend is emerging as a common practice to cope with the contemporary teaching environment in the two universities.

The trends in community outreach depict the practice as important for boosting career and

social responsibility for academics in both institutions. However, commitment is reflected more in MUK than UWC given that the change detected in practice over time in the former is absent in the later. Given that the trend in the practice depicted more of institutional than national motivation, the differences between the two institutions show that society might be benefiting more from academics in MUK than UWC.

Overall, there were more areas of commonality than divergence in the two universities. The study further established that the academic profession in the two universities exhibits change, which could possibly be associated with the rising knowledge society in Uganda and South Africa. This point to a rather close pattern of practice further supported by the idea that the emerging challenges for academic work cut across agricultural and industrial nations like Uganda and South Africa. Thus, the changing context of operation for universities in Uganda might have demands closely related to those required of universities in South Africa.

8.5 Contributions of the Study

The contributions of this study emanate from the empirical, methodological and theoretical stance. That is, the study contributes to the existing body of knowledge on higher education as a field of study by linking the academic profession to the knowledge society. A number of studies have focused on the idea of a changing academic profession but few have directly related it to the knowledge society and those that have done so mostly reflect the reality of the west. Thus, this study bridged this gap by exploring the phenomenon from the perspective of Africa. This study has therefore made the first attempt at understanding the fate of the academic profession in the rising knowledge societies in Africa, specific to Uganda and South Africa.

Methodologically, the combination of a cross-national comparative and mixed method provide a nuanced understanding of the study phenomenon. Hence, the resultant concurrent triangulation of results from a qualitative and quantitative angle present an analytical

contribution of the study. Theoretically, this study challenges the neo institutional tenet, which depicts the influence of isomorphic pressure from the environment as a linear contributor of change in the organisation. This is specific to the competing forces identified as unique to each institution that contribute to the change. In this case, institutional reality specific to the limited capacity to innovate, enrolment patterns and unique to MUK, the persistent focus on basic research were identified as competing forces in shaping trends in the practice of the academic profession in the two universities.

8.6 Direction for Future Research

The future of the academic profession in the ever changing context of operation will always be a worth choice of focus for any study. Thus, a replication of this study in any other context in Africa would make a good research project. Thus, it would be useful to probe the experience of individual African universities. A consideration of relevant stakeholders including government officials, academic staff and institutional leaders at different levels would enrich such a study. At the same time, it would be informative to explore the role of institutional leadership in the implementation of national policy interests in an institution. The results of this study further suggest an exploration of how any institution in any African country is preparing academia to contribute to the knowledge age.

References

- Acer, E. K., & Güçlü, N. (2017). The expansion of higher education in Turkey: The rationales behind this expansion and its challenges. *Yuksekokretim Dergisi*, 7(1), pp.28–38.
- Adesina, M. (2015). ICT: Its relevance in the teaching and learning of physical education in Nigeria. *Journal of Emerging Trends in Educational Research and Policy Studies*, 6(3), 236–239.
- African Development Bank. (2012). *Support to higher education, science and technology (HEST) project: Republic of Uganda*. Kampala: AfDB.
- African Development Bank Group. (2008). *Strategy for higher education science and technology*. Abidjan: AfDB.
- African Union. (2010). *Establishment of the pan african university: Act of establishment*. Addis Ababa: AU.
- African Union Commission. (2015). *Agenda 2063: The Africa we want*. Retrieved on July 27, 2017 from <http://agenda2063.au.int/en/documents/agenda-2063-africa-we-want-popular-version-final-edition>.
- African Union Commission. (2014). *STISA-2024 Science, technology and innovation strategy for Africa 2024*. Retrieved on July 27, 2017 from https://au.int/sites/default/files/newsevents/Workingdocuments/33178-wd-stisa-english_-_final.pdf.
- African Union Commission. (2016). *Continental education strategy for Africa 2016 – 2025*. Retrieved on July 27, 2017 from <https://doi.org/10.1371/journal.pone.0075247>.
- Akker, V. D. W., & Spaapen, J. (2017). Productive interactions societal impact of academic research in the Knowledge Society. *LERU Position Paper*.
- Alam, M. (2016). Challenges for teachers in knowledge society. *The International Journal of Indian Psychology*, 3(2). doi: 18.01.030/20160303.
- Altbach, P. G. (1977). Introduction: Notes on the study of the academic Profession. *Higher Education*, 6(2), 131–134.
- Altbach, P. G. (1995). Problems and possibilities: The US academic profession. *Studies in*

Higher Education, 20(1), 27–44. <https://doi.org/10.1080/03075079512331381780>.

Altbach, P. G. (1996). *The international academic profession: Portraits of fourteen countries*. Princeton, New Jersey: The Carnegie Foundation for the advancement of teaching.

Altbach, P. G. (2003). *The decline of the Guru: The academic profession in developing and middle income countries*. New York: Palgrave.

Altbach, P. G. (2013). Advancing the national and global knowledge economy: The role of research universities in developing countries. *Studies in Higher Education*, 38(3), 316–330. <https://doi.org/10.1080/03075079.2013.773222>.

Altbach, P. G. (2017). Post-secondary systems, massification and the research university. *International Higher Education*, 91: 5–7.

Altbach, P. G, Reisberg, L., & Rumbley, L. E. (2010). *Trends in global higher education: Tracking an academic revolution*. Rotterdam: Sense Publishers.

Amavilah, V., Asongu, A., & Andres, A. R. (2014, April). *Globalisation, peace and stability, governance and knowledge economy* (Development Research Working Paper No. 04/2014).

Amin, E. M. (2005). *Social science research: Conception, methodology and analysis*. Makerere University Press, Kampala.

Andoh, H. (2017). Research: The “lost mission” of African universities. *International Higher Education*, (91), 20–22. <https://doi.org/10.6017/ihe.2017.91.10133>.

Andrés, A. R., Asongu, S. A., & Amavilah, V. (2015). The impact of formal institutions on knowledge economy. *Journal of Knowledge Economy*, 6, 1034–1062. <https://doi.org/10.1007/s13132-013-0174-3>.

Anttiroiko, A.V. (2015). Networks in Manuel Castells’ theory of the network society. *Munich Personal RePEc Archive*, (65617), 35. Retrieved on May 13, 2019 from <http://mpa.ub.uni-muenchen.de/65617/>.

Arimoto, A. (2014). The teaching and research nexus in the third wave age. In *Teaching and research in contemporary higher education* (pp. 15–33). Springer, Dordrecht. https://doi.org/10.1007/978-94-007-6830-7_2.

- Arnold, M. (2013). Transdisciplinary research (Transdisciplinarity). In E. G. Carayannis (Ed.), *Encyclopedia of Creativity, Invention, Innovation and Entrepreneurship*. New York, NY: Springer.
- Asmal, K. M., & Kahn, M. (2000). The knowledge economy - fact or faction. *South African Journal of Business Management*, 31(4), 131–136.
- Asongu, S. A. (2013, January). *Modeling the future of knowledge economy: Evidence from SSA and MENA countries* (AGDI Working Paper No. WP/13/015).
- Asongu, S. A. (2015). Boosting scientific publications in Africa: Which IPRs protection channels matter? *Journal of the Knowledge Economy*, 6(2), 1–14. <https://doi.org/10.1007/s13132-015-0268-1>.
- Asongu, S. A. (2017). Knowledge economy gaps, policy syndromes, and catch-up strategies: Fresh South Korean lessons to Africa. *Journal of Knowledge Economy*, 8, 211–253. <https://doi.org/10.1007/s13132-015-0321-0>.
- Asongu, S. A., & Kuanda, J. (2020, January). *Building knowledge economies in Africa: An introduction* (Working Papers of the African Governance and Development Institute No. 20/002).
- Asongu, S. A., & Nwachukwu, J. C. (2017, June). *Building Knowledge Economies in Africa: A Survey of Policies and Strategies* (AGDI Working Paper No. WP/17/021). <https://doi.org/10.2139/ssrn.2988293>.
- Asongu, S. A., & Tchamyou, V. S. (2020). Human capital, knowledge creation, knowledge diffusion, institutions and economic incentives: South Korea versus Africa. *Contemporary Social Science*, 15(1), 26–47. <https://doi.org/10.1080/21582041.2018.1457170>.
- Asongu, S. A., Tchamyou, V. S., & Acha-Anyi, P. N. (2020). Who is who in knowledge economy in Africa? *Journal of the Knowledge Economy*, 11(2), 425–457. <https://doi.org/10.1007/s13132-018-0547-8>.
- Baatjes, I. G. (2005). Neoliberal fatalism and the corporatisation of higher education in South Africa. *Quarterly Review of Education & Training in South Africa*, 12(1), 25–33.

- Babbie, E. (2008). *The basics of social science research*. New York: Thomson Wadsworth.
- Babbie, E., & Mouton, J. (2007). *The practice of social research*. New York: Oxford University Press.
- Badsha, N., & Cloete, N. (2011). *Higher Education: Contribution for the NPC's national development plan*. Cape Town: The Centre for Higher Education Transformation.
- Bank, L. (2018). Approach to the university, place and development. In L. Bank, N. Cloete, & F. Van Schalkwyk (Eds.), *Anchored in place: Rethinking the university and development in South Africa*. Cape Town: African Minds.
- Barley, S. R., & Tolbert, P. S. (1997). Institutionalisation and institutions: Studying links between action and institution. *Organizational Studies*, 18(1), 93–117.
- Barrotta, P., & Montuschi, E. (2018). Expertise, relevance and types of knowledge. *Social Epistemology*, 32(6), 387–396. <https://doi.org/10.1080/02691728.2018.1546345>.
- Bassi, R., & Finkelievich, S. (2013). *Training manual: Uganda as a knowledge society*. Kampala. Retrieved on November 2, 2017 from <http://www.roxanabassi.com.ar/files/IFAP-Uganda-as-a-Knowledge-Society-training-manual.pdf>.
- Bastalich, W. (2010). Knowledge economy and research innovation. *Studies in Higher Education*, 35(7), 845–857. <https://doi.org/10.1080/03075070903406533>.
- Batagan, L. (2007). Indicators for knowledge economy. *Revista Informatica Economica*, 4(44), 60–63.
- Bazeley, P. (2010). Conceptualising research performance. *Studies in Higher Education*, 35(8), 889-903. <https://doi.org/10.1080/03075070903348404>.
- Beck, S. (2008). The teacher's role and approaches in a knowledge society. *Cambridge Journal of Education*, 38(4). <https://doi.org/10.1080/03057640802482330>.
- Bentley, P. J., & Kyvik, S. (2012). Academic work from a comparative perspective: A survey of faculty working time across 13 countries. *Higher Education*, 63(4), 529–547. <https://doi.org/10.1007/s10734-011-9457-4>.

- Bentley, P. J., Gulbrandsen, M., & Kyvik, S. (2015). The relationship between basic and applied research in universities. *Higher Education*, 70(4), 689–709. <https://doi.org/10.1007/s10734-015-9861-2>.
- Berger, P., & Luckman, T. (1967). *The social construction of reality*. New York: Doubleday.
- Bexley, E., James, R., & Arkoudis, S. (2011). *The Australian academic profession in transition*. Canberra: Department of Education, Employment and Workplace Relations.
- Bisaso, R. (2017). Makerere university as a flagship institution: Sustaining the quest for relevance. In D. Teferra (Ed.), *Flagship universities in Africa*, (pp. 425–466). Cham: Springer.
- Björck, F. (2004). Institutional theory: A new perspective for research into IS/IT security in organisations. In *Proceedings of the Hawaii International Conference on System Sciences* 37: 1–5. <https://doi.org/10.1109/hicss.2004.1265444>.
- Blankley, W. O., & Booyens, I. (2010). Building a knowledge economy in South Africa. *South African Journal of Science*, 106(11–12), 1–6. <https://doi.org/10.4102/sajs.v106i11/12.373>.
- Boaventura, S. S. (2010). The university in the twenty-first century. In L. A. Apple, W. Micheal; Ball, J. Stephen; Gandin (Ed.), *The Routledge international handbook of the sociology of education*. (pp. 274–282). New York: Routledge.
- Bonal, X., & Rambla, X. (2010). Captured by the totally pedagogised society: Teachers and teaching in the knowledge economy. *Globalisation, Societies and Education*, 1(2), 169–184. <https://doi.org/10.1080/14767720303916>.
- Bowers, A. M. (2017). University-community partnership models: Employing organizational management theories of paradox and strategic contradiction. *Journal of Higher Education Outreach and Engagement*, 21(2), 37–64.
- Boyer, E. L. (1996). The Scholarship of Engagement. *Journal of Public Service and Outreach*, 1(1), 11–20.
- Bozalek, V., Ng'ambi, D., & Gachago, D. (2013). Transforming teaching with emerging technologies : Implications for higher education institutions. *South African Journal of*

Higher Education, 27(2), 419–436.

Brackmann, S. M. (2015). Community engagement in a neoliberal paradigm. *Journal of Higher Education Outreach and Engagement*, 19(4), 115–146.

Bradshaw, Y., & Wallace, W. (1991). Informing generality and explaining uniqueness: The place of case studies in comparative research. *International Journal of Comparative Sociology*, 32: 1–2.

Brandner, A., & Abbo, S. M. (2019). *Agenda knowledge for development*. Kampala: Knowledge for Development Partnership.

Brannen, J., & Nilsen, A. (2011). Comparative biographies in case-based cross-national research: Methodological considerations. *Sociology*, 45(4), 603–618. <https://doi.org/10.1177/0038038511406602>.

Brar, S., Farley, E. S., Hawkins, R., & Wagner, S. C. (2011). *Science, technology and innovation in Uganda*. Washington D.C: The World Bank.

Bratianu, C., & Dinca, V. M. (2010). Knowledge economy dimensions. *Revista de Management Comparat International*, 11(2), 210–221.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.

Bresnen, M., & Burrell, G. (2013). Twenty years of living alongside Mode 2 and the new production of knowledge. *Organization*, 20(1), 25–37. <https://doi.org/10.1177/1350508412460992>.

Brew, A., Boud, D., Namung, S. U., Lucas, L., & Crawford, K. (2016). Research productivity and academics conceptions of research. *Higher Education*, 71(5), 681–697. <https://doi.org/10.1007/s10734-015-9930-6>.

Brinkley, I. (2006). *Defining the knowledge economy: Knowledge economy programme report*. The Work Foundation.

Britz, J. J., Lor, P. J., Coetzee, I. E. M., Bester, B. C. (2006). Africa as a knowledge society: A reality check. *The International Information & Library Review*, 38 (1), 25-40. <https://doi.org/10.1016/j.iilr.2005.12.001>.

- Bryman, A. (2008). *Social research methods* (3rd ed.). Oxford: Oxford University Press.
- Bryman, A. (2012). *Social research methods*. Oxford: Oxford University Press.
- Buwule, R. S., & Mutula, S. M. (2017). Research support services to small and medium enterprises by university libraries in Uganda: An entrepreneurial and innovation strategy. *SA Journal of Information Management*, 19(1), 1–8. <https://doi.org/10.4102/sajim.v19i1.780>
- Cadez, S., Dimovski, V., & Zaman G. M. (2017). Research, teaching and performance evaluation in academia: The salience of quality. *Studies in Higher Education*, 42(8), 1455–1473. <https://doi.org/10.1080/03075079.2015.1104659>.
- Carlaw, K., Oxley, L., Walker, P., Thorns, D., & Nuth, M. (2012). Beyond the hype: Intellectual property and the knowledge society/knowledge economy. *The Knowledge Economy and Lifelong Learning: A Critical Reader*, 20(4), 7–42. <https://doi.org/10.1007/978-94-6091-915-2>.
- Carmody, P. (2013). A knowledge economy or an information society in Africa? Thintegration and the mobile phone revolution. *Information Technology for Development*, 19(1), 24–39. <https://doi.org/10.1080/02681102.2012.719859>.
- Castell, M. (2005). *The network society: From knowledge to policy*. Washington D.C: Johns Hopkins Center for Transatlantic Relations.
- Cernat, M. (2011). The role of the university in the knowledge society: Ethical perspectives on academic research in the age of corporate science. *Lex et Scientia International Journal*, 18(1), 1924–1932. <https://doi.org/10.1525/sp.2007.54.1.23>.
- Chen, Y. V. (2016). Translation, the knowledge economy and crossing boundaries in contemporary education. *Educational Philosophy and Theory*, 48(12), 1284–1297. <https://doi.org/10.1080/00131857.2015.1068684>.
- Chikozho, C., & Saruchera, D. (2015). Universities and think-tanks as partners in the African knowledge economy: Insights from South Africa. *African Journal of Science, Technology, Innovation and Development*, 7(4), 286–300. <https://doi.org/http://dx.doi.org/10.1080/20421338.2015.1082368>.

- Chizema, A., & Buck, T. (2006). Neo-institutional theory and institutional change: Towards empirical tests on the “Americanization” of German executive pay. *International Business Review*, 15(5), 488–504. <https://doi.org/10.1016/j.ibusrev.2006.05.007>.
- Clark, S. M. (1986). The academic profession and career: Perspectives and problems. *Teaching Sociology*, 14(1), 24–34.
- Cloete, N. (2014). The South African higher education system: performance and policy. *Studies in Higher Education*, 39(8), 1355–1368. <https://doi.org/10.1080/03075079.2014.949533>.
- Cloete, N., & Maassen, P. (2015). Roles of universities and the African context. In N. Cloete, P. Maassen, & T. Bailey (Eds.), *Knowledge Production and contradictory functions in African higher education* (pp. 1–17). Cape Town: African Minds.
- Cloete, N., Bailey, T., Pillay, P., Bunting, I., & Maassen, P. (2011). *Universities and economic development in Africa*. Cape Town: African Minds.
- Cloete, N., Bunting, I., & Maassen, P. (2015). Research universities in Africa: An empirical overview of eight flagship universities. In N. Cloete, P. Maassen, & T. Bailey (Eds.), *Knowledge Production and Contradictory Functions in African Higher Education* (pp. 18–31). Cape Town: African Minds.
- Cloete, N., Bunting, I., & Schalkwyk, F. V. (2018). *Research universities in Africa*. Cape Town: African Minds.
- Cloete, N., Langa, P. V., Nakayiwa-Mayega, F., Ssembatya, V., Wangege-Ouma, G., & Tebeho, M. (2016). Rankings in Africa: Important, interesting, interesting or irrelevant? In *Global rankings and the geopolitics of higher education* (pp. 152–167). London: Routledge.
- Cloete, N., Maassen, P., & Bailey, T. (2015). *Knowledge production and contradictory functions in African higher education*. African Minds Higher Education Dynamics Series (Vol. 1). Retrieved on December 9, 2019 from <http://www.africanminds.org.za>.
- Cloete, N., Sheppard, C., & Bailey, T. (2015). South Africa as a PHD hub in Africa? In N. Cloete, P. Maassen, & T. Bailey, *Knowledge Production and Contradictory Functions in African Higher Education* (pp. 75–108). Cape Town: African Minds.
- Coalition for African Research and Innovation. (2018). *The Need for robust African research*

& development. Nairobi: CARI.

Collins, K. M. T., Onwuegbuzie, A. J., & Jiao, Q. G. (2008). Prevalence of mixed-methods sampling designs in social science. *Evaluation and Research in Education*, 19(2), 83–101. <https://doi.org/10.2167/eri421.0>.

Council on Higher Education. (2016). *South African higher education reviewed: Two decades of democracy*. Pretoria: CHE.

Council on Higher Education. (2020). *Annual report 2018/19*. Pretoria: CHE.

Creswell, J. W. (2009). Mapping the field of mixed methods research. *Journal of Mixed Methods Research*, 3(2), 95–108.

Creswell, J. W. (2014). *Research design: Qualitative, quantitative and mixed methods approaches*. (4th Ed.). Los Angeles: Sage Publication Inc.

Creswell, J. W., & Creswell, D. J. (2005). *Mixed methods research: Development, debates and dilemmas*. San Francisco: Barrett-Koehler Publishers Inc.

Cronbach, L. J., & Meehl, P. E. (1955). Construct validity in psychological tests. *Psychological Bulletin*, 52(4), 281–302. <https://doi.org/10.1037/h0040957>.

Crookes, P., Else, F. C., & Smith, K. M. (2015). Embedding the Scholarship of Engagement at a Regional University. *Journal of Higher Education Outreach and Engagement*, 19: 149–170.

Croucher, G., & Woelert, P. (2016). Institutional isomorphism and the creation of the unified national system of higher education in Australia: An empirical analysis. *Higher Education*, 71(4), 439–453. <https://doi.org/10.1007/s10734-015-9914-6>.

Center for World University Ranking. (2019). CWUR world university ranking 2019-2020. Retrieved on November 13, 2019, from <https://cwur.org/2019-2020.php>.

Czerniewicz, L., Ravjee, N., & Mlitwa, N. (2007). *ICTs and the South African higher education landscape*. Pretoria: The Council on Higher Education.

Dacin, M. T, Goodstein, J, & Scott, W. R. (2002). Institutional theory and institutional change: Introduction to special research forum. *The Academy of Management Journal*, 45(1),

45–56.

Daniels, P. (2018). *The early origins of community engagement at University of the Western Cape*. Retrieved on May 2, 2019 from <http://www.uwc.ac.za>.

David, P. A., & Foray, D. (2003). Economic Fundamentals of the Knowledge Society. *Policy Futures in Education*, 1(1), 20–49. <https://doi.org/10.2304/pfie.2003.1.1.7>.

Ddumba-Ssetamu, J. (2017). *Handover report to the in-coming Vice Chancellor*. Kampala: Makerere University.

De Jager, P., Frick, L., & Van Der Spuy, P. (2017). Developments in the production of economics PhDs at four research-intensive universities in South Africa. *South African Journal of Science*, 113(3–4), 1–9. <https://doi.org/10.17159/sajs.2017/20160117>.

De Vaus, D. (2008). Comparative and Cross-National Designs. In P. Alasuutari, L. Bickman, & J. Brannen (Eds.), *The SAGE Handbook of Social Research Methods* (pp. 249-264). London: Sage Publication. <https://doi.org/10.4135/9781446212165>.

Deiaco, E., Hughes, A., & McKelvey, M. (2012). Universities as strategic actors in the knowledge economy. *Cambridge Journal of Economics*, 36(3), 525–541. <https://doi.org/10.1093/cje/bes024>.

Delanty, G. (2003). Ideologies of the knowledge society and the cultural contradictions of higher education. *Policy Futures in Education*, 1(1), 71–82. <https://doi.org/10.2304/pfie.2003.1.1.9>.

Delbridge, R., & Edwards, T. (2013). Inhabiting institutions: Critical realist refinements to understanding institutional complexity and change. *Organization Studies*, 34(7), 927–947. <https://doi.org/10.1177/0170840613483805>.

Dellinger, A. B., & Leech, N. L. (2007). Toward a unified validation framework in mixed methods research. *Journal of Mixed Methods Research*, 1(4), 309–332. <https://doi.org/10.1177/1558689807306147>.

Denzin, N. K. (1970). *The research act: A theoretical introduction to sociological methods*. New York: Aldine.

Department of Higher Education and Training. (2012). *Department of higher education and*

training annual report. Pretoria: DHET.

Department of Higher Education and Training. (2014). *Post school education and training white Paper: Building an expanded, effective and integrated post school education syetem*. Pretoria: DHET.

Department of Higher Education and Training. *Research outputs policy*. (2015). Pretoria: DHET.

Department of Higher Education and Training. (2018). *Report on the evaluation of the 2016 universities' research output*. Pretoria: DHET.

Department of Higher Education and Training. (2019). *Report on the 2017 universities' research output*. Pretoria: DHET.

Department of Science and Technology. (2007). *Innovation towards a knowledge-based economy: Ten-Year Plan for South Africa (2008-2018)*. Pretoria: DST.

Department of Science and Technology. (2017). *Draft white paper on science, technology and innovation November 2017*. Pretoria: DST.

Department of Science and Technology. (2018). *Draft white paper on science, technology and innovation*. Pretoria: DST.

Department of Science and Technology. (2019). *White Paper on science, technology and innovation*. Pretoria: DST.

Department of Telecommunications and Postal Services. (2016). *National integrated ICT policy white paper*. Pretoria: DTPS

Department of Telecommunications and Postal Services. (2017). *South Africa's national E-strategy: Towards a thriving and inclusive digital future*. Pretoria: DTPS.

Department of Trade and Industry. (2017). *Industrial policy action plan 2018/19-2020/21*. Pretoria: DTI.

Devecioglu, Y., & Kurt, I. (2013). Educating teachers for the global world. *International Journal of Humanities and Social Sciences*, 3(19), 115–124.

DiMaggio, P. J, & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism

- and collective rationality in organisational fields. *American Sociological Review*, 48(2), 147–160.
- Dimaggio, P. J. (1988). Interest and agency in institutional theory. In L. G Zucker (Ed.), *Institutional Patterns and Organisations: Culture and Environment* (pp. 3–21). Cambridge, Massachusetts: Ballinger Publishing Company.
- Dimaggio, P. J. (1991). Constructing an organisational field as a professional project: US art museums 1920-1940. In Walter W Powell & P. J. Dimaggio (Eds.), *The new institutionalism in organisational analysis* (pp. 267–292). Chicago: The University of Chicago Press.
- Diogo, S, Amaral, A and Carvalho, T. (2015). Institutionalism and organizational change. In *Multilevel governance in higher education research*. (pp. 114–132). London: Palgrave.
- Dörnyei, Z. (2003). *Questionnaires in second language research: Construction, administration and processing*. New Jersey: Lawrence Erlbaum Associates, Inc.
- Drahansky, M., Paridah, M., Moradbak, A., Mohamed, A., Owolabi, F., Abdulwahab, T., Asniza, M., & Abdul, K. S. H. (2017). *Indigenous people*. INTECH Open Science. <https://doi.org/http://dx.doi.org/10.5772/57353>.
- Drucker, P. F. (1993). The rise of the knowledge society. *The Wilson Quarterly*, 17(2), 52–71.
- Dumitru, V. F., Stanciu, A., Dumitru, M., & Feleagă, L. (2014). Pressure and isomorphism in business education. *Amfiteatru Economic*, 16(37), 784–799.
- Durie, M. (2005). Indigenous knowledge within a global knowledge system. *Higher Education Policy*, 18(3), 301–312. <https://doi.org/10.1057/palgrave.hep.8300092>.
- Eaton, W., Wright, W., Whyte, K., Stephen, P., & Gehrke, P. J. (2014). Engagement and uncertainty: Emerging technologies challenge the work of engagement. *Journal of Higher Education Outreach and Engagement*, 18(2), 151–177.
- Ecuru, J. (2011). *Fostering growth in Uganda's innovation system*. (Unpublished doctoral dissertation). Blekinge Institute of Technology, Karlskrona, Sweden.
- Ecuru, J., & Kawooya, D. (2015). Effective innovation policies for development: Uganda. In D. Soumitra, L. Bruno, & S. Wunsch-Vincent (Eds.), *The global innovations index 2015*:

Effective innovation policies for development (pp. 147–153). Geneva: World Intellectual Property Organisation.

Eekelen, B. V. (2015). Knowledge for the west, production for the rest? *Journal of Cultural Economy*, 8(4), 479–500. <https://doi.org/10.1080/17530350.2014.909367>.

Effective States and Inclusive Development. (2013). *How should Uganda grow?* (ESD Briefing No. 3). Manhester.

Ek, A. C., Ideland, M., Jönsson, S., & Malmberg, C. (2013). The tension between marketisation and academisation in higher education. *Studies in Higher Education*, 38(9), 1305–1318. <https://doi.org/10.1080/03075079.2011.619656>.

Ekanem, E. E., & Okon, J. E. (2015). Transforming university knowledge production towards the promotion of inclusive development in Nigeria. *Journal of Education and Social Policy*, 2(4), 143–151.

Enders, J. (1999). Crisis? What crisis? The academic professions in the knowledge society. *Higher Education*, 38, 71–81.

Enders, J. (2006). The academic profession. In J. J. F. Forrest & P. G. Altbach (Eds.), *International Handbook of Higher Education* (pp. 5–21). Dordrecht: Springer.

Farner, K. (2019). Institutionalizing community engagement in higher education: A case study of processes toward engagement. *Journal of Higher Education Outreach and Engagement*, 23(2), 147–152.

Fathollahi, M. F., Elahi, N., & Najafi, S. M. S. (2017). Appropriate theoretical framework for understanding and analyzing economic issues in knowledge-based economy. *Journal of the Knowledge Economy*, 8(3), 957–976. <https://doi.org/10.1007/s13132-015-0307-y>.

Fay, D. L., & Zavattaro, S. M. (2016). Branding and isomorphism: The case of higher education. *Public Administrative Review*, 76(5), 805–815.

Faye, M. (2016). *Inclusive development and the digital transformation in Africa*. Durban, South Africa.

Fitzgerald, H. E., Bruns, K., Sonka, S. T., Furco, A., & Swanson, L. (2016). The centrality of

engagement in higher education: Reflections and future directions. *Journal of Higher Education Outreach and Engagement*, 20(1), 245–254.

Fleming, R. (2010). *Crossing borders and contesting values: Negotiating British Columbia's university Sector*. Simon Fraser University.

Fonn, S., Ayiro, L. P., Cotton, P., Habib, A., Mbithi, P. M. F., Mtenje, A., Nawangwe, B., Ogunbodede, E., Olayinka, I., Golooba-Mutebi, F., & Ezeh, A. (2018). Repositioning Africa in global knowledge production. *The Lancet*. [https://doi.org/10.1016/S0140-6736\(18\)31068-7](https://doi.org/10.1016/S0140-6736(18)31068-7).

Foreman-Peck, L., & Winch, C. (2010). *Using educational research to inform practice: A practical guide to practitioner research in universities and colleges. Using Educational Research to Inform Practice*. New York: Routledge.

Fowler, F. (2009). *Survey research methods* (4th ed.). Thousand Oaks, CA: Sage.

Franz, N. (2016). The legacy and future of a model for engaged scholarship: Supporting a broader range of scholarship. *Journal of Higher Education Outreach and Engagement*, 20(1), 217–222.

Freeman, I. M. (2016). Life skills for 21 st century learners. *International Journal of Education and Social Sciences*, 3(10), 49–52. Retrieved on April 1, 2018 from <http://www.ijessnet.com/wp-content/uploads/2016/11/6.pdf>.

Frey, B. (2018). *The Sage encyclopedia of educational research, measurement and evaluation*. Thousand Oaks, CA: Sage Publication Inc.

Gashi, F. (2015). Knowledge society in the context of the economic development with a focus in Kosovo. *Academic Journal of Business, Administration, Law and Social Sciences*, 1(2), 308–313.

Gibbons, M, Limoges, C., Nowotny, H., Schwartzman, S., Scott, P., & Trow, M. (1994). *The new production of knowledge: The dynamics of science and research in contemporary societies*. Sage Publication Inc.

Gibbons, M., Limoges, C., & Scott, P. (2011). Revisiting mode 2 at Noors Slott. *Critical Studies in Innovation*, 29(4), 361–372. <https://doi.org/10.1080/08109028.2011.641384>.

- Global eSchools and Communities Initiative. (2011). *ICT, education, development, and the knowledge society*. Nairobi: GeSCI.
- Gonzales, L. D., Martinez, E., & Ordu, C. (2014). Exploring faculty experiences in a striving university through the lens of academic capitalism. *Studies in Higher Education, 39*(7), 1097–1115. <https://doi.org/10.1080/03075079.2013.777401>.
- Gonzales, L. D., & Terosky, A. L. (2016). From the faculty perspective: Defining, earning, and maintaining legitimacy across academia. *Teachers College Record, 118*(7), 1–28.
- Gopaul, B., Glen A. J., Weinrib, J., Metchalfe, A., Fisher, D., Gingras, Y., Gingras, Y., Rubenson, K. (2016). The academic profession in Canada: Perceptions of Canadian university faculty about research and teaching. *Canadian Journal of Higher Education, 46*(2), 55–77.
- Gornitzka, A. (1999). Governmental policies and organisational change in higher education. *Higher Education, 38*(1), 5–31.
- Greenwood, R., & Hinings, C. R. (1996). Understanding radical organizational change: Bringing together the old and the new Institutionalism. *The Academy of Management Review, 21*(4), 1022–1054.
- Greenwood, R., Oliver, C., Sahlin, K., & Suddaby, R. (eds). (2012). *Institutional theory in organisation studies* (1st ed.). Thousand Oaks, CA: Sage Publication Inc.
- Greenwood, R., Suddaby, R., & Hinings, C. R. (2002). Theorizing change: The role of professional associations in the transformation of institutionalized fields. *The Academy of Management Journal, 45*(1), 58–80. <https://doi.org/10.5465/AMJ.2009.43670890>.
- Grépin, K. A., Pinkstaff, C. B., Shroff, Z. C., & Ghaffar, A. (2017). Donorfunding health policy and systems research in low and middle-income countries: How much, from where and to whom. *Health Research Policy and Systems, 15*(1), 1–8. <https://doi.org/10.1186/s12961-017-0224-6>.
- Grix, J. (2004). *The foundations of research*. London: Palgrave Macmillan.
- Guillemin, M., & Gillam, L. (2004). Ethics, reflexivity, and “ethically important moments” in research. *Qualitative Inquiry, 10*(2), 261–280. <https://doi.org/10.1177/1077800403262360>.

- Hallman, H. L. (2019). Personalized learning through 1:1 technology initiatives: Implications for teachers and teaching in neoliberal times implications for teachers and teaching in neoliberal times. *Teaching Education*, 30(3), 1–20. <https://doi.org/10.1080/10476210.2018.1466874>.
- Halvorsen, T. (2016). Higher education in developing countries: Peril and promise, a decade and a half later: Development lost? *International Journal of African Higher Education*, 3(1), 80–95.
- Hamel, J. L. (2004). Knowledge Policies for Sustainable Development in Africa: A strategic framework for good governance. *Un published Working Paper, Econmic Commission for Africa, Sustainable Development Division, Addis Ababa*.
- Hantrais, L. (1999). Contextualization in cross-national comparative research. *International Journal of Social Research Methodology*, 2(2), 93–108. <https://doi.org/10.1080/136455799295078>.
- Hantrais, L., & Mangen, S. (eds). (1996). *Cross national research methods in social sciences*. London: Pinter.
- Hargreaves, A. (2005). *Teaching in a knowledge society*. New York: Teachers College Press.
- Harle, J. (2013). Strengthening research in African universities: Reflections on policy, partnerships and politics. *Policy & Practice: A Development Education Review*, 16: 80–100.
- Harris, R., & Ormond, B. (2019). Historical knowledge in a knowledge economy – what types of knowledge matter? *Educational Review*, 71(5), 564-580. <https://doi.org/10.1080/00131911.2018.1462764>.
- Hatlevik, I. K. R., & Hatlevik, O. E. (2018). Examining the relationship between teachers' ICT self-efficacy for educational purposes, collegial collaboration, lack of facilitation and the use of ICT in teaching practice. *Frontiers in Psychology*, (June):1–8. <https://doi.org/10.3389/fpsyg.2018.00935>.
- Hauge, T. (2016). Academic capitalism in the age of globalization. *Higher Education Research & Development*, 35(4), 865–867. <https://doi.org/10.1080/07294360.2016.1187380>.

- Henard, F., & Leprince-Ringuet, S. (2008). *The path to quality teaching in higher education*. Paris: OECD.
- Hénard, F., & Roseveare, D. (2012). *Fostering quality teaching in higher education: Policies and practices*. Retrieved on September 13, 2018 from www.oecd.org/edu/imhe.
- Henkel, M. (2007). Can academic autonomy survive in the knowledge society? A perspective from Britain. *Higher Education Research & Development*, 26(1), 87–99. <https://doi.org/10.1080/07294360601166836>.
- Henkel, M. (2009). Introduction: Change and continuity in academic and professional identities. In *Academic and professional identities in higher education*, (pp. 21–30). Routledge.
- Hesse-Biber, S. N., & Leavy, P. (2011). *The practice of qualitative research*. Thousand Oaks: Sage.
- Hessels, L. K., & van Lente, H. (2008). Re-thinking new knowledge production: A literature review and a research agenda. *Research Policy*, 37(4), 740–760. <https://doi.org/10.1016/j.respol.2008.01.008>.
- Hicks, T. L., & Radtke, R. I. (2015). Reshaping the boundaries of community engagement in design education: Global and local explorations. *Journal of Higher Education Outreach and Engagement*, 19(2), 157–174.
- Hladchenko, M. (2016). The organizational identity of Ukrainian universities as claimed through their mission statements. *Tertiary Education and Management*, 22(4), 376–389.
- Hoffman, A. J. (1999). Institutional evolution and change: Environmentalism and the U.S chemical industry. *The Academy of Management Journal*, 42(4), 351–371.
- Höhle, E. A., & Teichler, U. (2013). The academic profession in the light of comparative surveys. In B. Kehm., & U. Teichler (Eds.), *The academic profession in Europe: New tasks and new challenges*, (pp. 23–38). Springer, Dordrecht.
- Holland, B. A. (2016). Factors influencing faculty engagement--then, now, and future. *Journal of Higher Education Outreach & Engagement*, 20(1), 73–81.
- Holmner, M. (2011). The road to the information and knowledge society: Indigenous

knowledge and the millennium development goals. *Mousaion*, 29(2), 139–157.

Holmner, M. A. (2008). *A critical analysis of information and knowledge societies with specific reference to the interaction between local and global knowledge systems*. (Unpublished doctoral dissertation). University of Pretoria, Pretoria, South Africa. Retrieved on January 21, 2018 from <http://repository.up.ac.za/handle/2263/29381>.

Hooker, M. (2010). *Concept note: Building Leadership Capacity for ICT and Knowledge Societies in Africa*. Nairobi: Global eSchools and Communities Initiative.

Hornidge, A. K. (2011). 'Knowledge society' as academic concept and stage of development: A conceptual and historical review. In T. Menkhoff, H. D. Evers, C. Y. Wah, & E. Pang (Eds.), *Beyond the Knowledge Trap: Developing Asia's Knowledge-Based Economies* (pp. 87–127). Singapore: World Scientific Publication. https://doi.org/10.1142/9789814343688_0004.

Hosman, L. (2010). Policies, partnerships, and pragmatism: Lessons from an ICT in education project in rural Uganda. *Information Technologies & International Development*, 6(1), 48–64.

Hughes, W., & Hughes, C. (2013). Professionalism and professional institutions in times of change. *Building Research and Information*, 41(1), 28–38. <https://doi.org/https://doi.org/10.1080/09613218.2013.737096>.

Hugo, P. (1998). Transformation: The changing context of academia in post-apartheid South Africa. *African Affairs*, 97(386), 5–27.

Human Resource Development Council of South Africa. (2009). *Human Resource Development Strategy for South Africa (HRD - SA) 2010 -2030*. Retrieved on May 25, 2018 from <https://hrdcsa.org.za/>.

Iloanya, J. (2017). Democratisation of teaching and learning: A tool for the implementation of the tuning approach in higher education? *Tuning Journal for Higher Education* 4(2), 257–276. <http://dx.doi.org/10.18543/tjhe>.

Industrial Development Corporation. (2017). *Economic trends: Key trends in South Africa's economy*. Retrieved on May 2, 2017 from https://www.idc.co.za/images/2017/IDC_RI_publication_Key-trends-in-SA-

economy_31-March-2017.pdf.

- International Business Machines Corporation. (2017). *IBM SPSS statistics for windows, version 25.0*. Armonk, New York: IBM Corp.
- Ishengoma, J. M. (2016). North – South Knowledge collaboration and their impact on capacity building: A south perspective. In T. Hoalvorsen & J. Nossun (Eds.), *North-South knowledge networks: Towards equitable collaboration between academics, donors and universities* (pp. 149–186). Cape Town: African Minds.
- Jackson, K., & Bazeley, P. (2019). *Qualitative data analysis with Nvivo*. (3rd ed.). London: SAGE Publications Limited.
- Jakovljevic, M. (2018). A model for innovation in higher education. *South African Journal of Higher Education*, 32(4), 109–131. <https://doi.org/10.20853/32-4-2432>.
- Jegede, O. (2012). The status of higher education in Africa. In *Weaving success: Voices of change in African higher education*. New Jersey: Higher Education in Africa (PHEA).
- Jessop, B. (2017). Varieties of academic capitalism and entrepreneurial universities: On past research and three thought experiments. *Higher Education*, 73(6), 853–870. <https://doi.org/10.1007/s10734-017-0120-6>.
- Ježić, Z. (2015). Hypercomplex knowledge in a knowledge-based economy. *Economic Research*, 25(1), 132–144. <https://doi.org/10.1080/1331677X.2012.11517500>.
- Jiyane, G. V., Majanja, M. K., Mostert, B. J., & Ocholla, D. N. (2013). South Africa as an information and knowledge society: Benefit to the informal sector women entrepreneurs. *South African Journal of Libraries and Information Science*, 79(1), 1–12. <https://doi.org/10.7553/79-1-115>.
- Johnson, R. B, Onwuegbuzie, A. J., & Turner, L. A. (2007). Towards a definition of mixed methods research. *Journal of Mixed Methods Research*, 112–133. <https://doi.org/10.1177/1558689806298224>.
- Johnson, R. Burke, & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, 33(7), 14–26. <https://doi.org/10.3102/0013189X033007014>.

- Joo, S., Larkin, B., & Walker, N. (2017). Institutional isomorphism and social responsibility. *Sport, Business and Management: An International Journal*, 7(1), 38–57. <https://doi.org/10.1108/SBM-03-2016-0010>.
- Jowi, J. O. (2012). African universities in the global knowledge economy: The good and ugly of internationalization. *Journal of Marketing for Higher Education*, 22(1), 153–165. <https://doi.org/10.1080/08841241.2012.705799>.
- Jowi, J. O., & Obamba, M. (2013). *Research and innovation management: Comparative analysis of Ghana, Kenya, Uganda*. Paris: Programme on Innovation, Higher Education and Research for Development (IHERD).
- Kasule, G. W., Wesselink, R., Noroozi, O., Mulder, M., Wilson, G., Wesselink, R., ... Mulder, M. (2015). The current status of teaching staff innovation competence in Ugandan universities: Perceptions of managers, teachers, and students. *Journal of Higher Education Policy and Management*, 37(3), 330–343. <https://doi.org/10.1080/1360080X.2015.1034425>.
- Kasworm, C. E., Aira, N., & Abdrahim, B. (2014). Scholarship of engagement and engaged scholars: Through the eyes of exemplars. *Journal of Higher Education Outreach and Engagement*, 18(2), 121–148.
- Kauppinen, I. (2012). Towards transnational academic capitalism. *Higher Education*, 64(4), 543–556. <https://doi.org/10.1007/s10734-012-9511-x>.
- Kauppinen, I. (2014). Different meanings of “knowledge as commodity” in the context of higher education. *Critical Sociology*, 40(3), 393–409. <https://doi.org/10.1177/0896920512471218>.
- Kaur, M., & Singh, L. (2016). Knowledge in the economic growth of developing economies. *African Journal of Science, Technology, Innovation and Development* 8(2), 205–212. <https://doi.org/10.1080/20421338.2016.1147207>.
- Katz, D., & Kahn, R. (1978). *The social psychology of organizations* (2nd ed.). New York, NY: Wiley, John & Sons Incorporated.
- Kefela, G. T. (2010). Knowledge-based economy and society has become a vital commodity to countries. *International NGO Journal*, 1(12), 68–75.

- Keynan, I. (2014). Knowledge as responsibility: Universities and society. *Journal of Higher Education Outreach and Engagement*, 18(2), 179–206.
- Kezar, A., & Bernstein-Sierra, S. (2019). Examining processes of normative isomorphism and influence in scaled change among higher education intermediary organizations. *AERA Open*, 5(4), 233285841988490. <https://doi.org/10.1177/2332858419884905>.
- Khvatova, T., & Dushina, S. (2017). To manage or govern? Researching the legitimacy of NPM-based institutional reforms in Russian universities. *Journal of Management Development*, 36(2), 250–267. <https://doi.org/10.1108/JMD-06-2016-0110>.
- Kimoga, J. (2012). *Shaping a resourceful teacher: a new pedagogical outlook*. Saarbrücken: Lambert Academic Publishing.
- King, N., & Harrocks, C. (2010). *Interviews in qualitative research*. Thousand Oaks: Sage.
- Kirby, D. A., Guerrero, M., & Urbano, D. (2011). Making universities more entrepreneurial: Development of a model. *Canadian Journal of Administrative Sciences*, 28(3), 302–316. <https://doi.org/10.1002/CJAS.220>.
- Klemenčič, M., Flander, A., Pečjak, M. Ž., & Teichler, U. (2015). *Academic profession and the conditions of academic work in Slovenia: Findings of the 2013 EUROAC survey*. Ljubljana: Centre of the Republic of Slovenia for Mobility and European Educational and Training Programmes (CMEPIUS).
- Kornienko, A. (2015). The concept of knowledge society in the ontology of modern society. *Procedia - Social and Behavioral Sciences*, 166: 378–386. <https://doi.org/10.1016/j.sbspro.2014.12.540>.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30: 607–610.
- Kruss, G., Adeoti, J., & Nabudere, D. (2012). Universities and knowledge-based development in sub-Saharan Africa: Comparing university-firm interaction in Nigeria, Uganda and South Africa. *Journal of Development Studies*, 48(4), 516–530. <https://doi.org/10.1080/00220388.2011.604410>.
- Kruss, G., Haupt, G., & Visser, M. (2016). ‘Luring the academic soul’: promoting academic

- engagement in South African universities. *Higher Education Research and Development*, 35(4), 755–771. <https://doi.org/10.1080/07294360.2015.1137874>.
- Kwiek, M. (2016). The European research elite: a cross-national study of highly productive academics in 11 countries. *Higher Education*, 71(3), 379–397. <https://doi.org/10.1007/s10734-015-9910-x>
- Lane, J. E. (1987). Against Administration. *Studies in Higher Education*, 12(3), 249–260. <https://doi.org/10.1080/03075078712331378042>.
- Laurillard, D. (2002). Rethinking Teaching for the Knowledge Society. *Educause Review* 37(1), 16–25.
- Lawrence, B. T., & Shadman, M. (2008). Institutional theory. In *The international encyclopedia of communication*. Malden: Blackwell Publishing Ltd. <https://doi.org/https://doi.org/10.1002/9781405186407.wbieci035>.
- Lawrence, B. T., & Suddaby, R. (2006). Institutions and institutional work. In S. R. Cleggy, C. Hardy, B. T. Lawrence, & W. R. Nord (Eds.), *The SAGE Handbook of Organizational Studies* (pp. 215–254). London: Sage. <https://doi.org/10.1007/s11786-007-0026-2>.
- Leisyte, L., & Dee, R. J. (2012). Understanding academic work in a changing institutional environment. In C. J. Smart & B. M. Paulsen (Eds.), *Higher Education: Handbook of theory and research*. (pp. 123–206). New York: Springer. <https://doi.org/10.1007/978-94-007-2950-6>.
- Lešer, V. J., Širca, N. T., Dermol, V., & Trunk, A. (2018). Career Opportunities for PhD graduates in the knowledge-based economy: Case of Slovenia. *Procedia - Social and Behavioral Sciences*, 238, 104–113. <https://doi.org/10.1016/j.sbspro.2018.03.013>.
- Levine, A. (1997). How the academic profession is changing. *The American Academic Profession*, 126(4), 1–20.
- Lewis-Beck, M. S., Bryman, A., & Liao, F. T. (2004). *The sage encyclopedia of social science research methods*. Thousand Oaks, CA: Sage. <https://doi.org/10.4135/9781412950589>.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. California: Beverly Hills, CA: Sage

Publications.

- Locke, W., & Bennion, A. (2013). Satisfaction in stages: The academic profession in the United Kingdom and the British commonwealth. *Job Satisfaction around the Academic World*, 223–238. https://doi.org/10.1007/978-94-007-5434-8_12.
- Lodico, M. G., Spaulding, D. T., & Voegtler, K. H. (2010). *Methods in educational research: From theory to practice*. San Francisco: Jossey-Bass.
- Luić, L., & Glumac, D. (2009). The role of ICT technology in the knowledge society. In *9th International Conference on Telecommunications in Modern Satellite, Cable, and Broadcasting Services, TELSIKS 2009 - Proceedings of Paper* (pp. 310–313). <https://doi.org/10.1109/TELSKS.2009.5339515>.
- Lumu, D. (2019, September 9). Makerere university ranked fifth best in Africa. *New Vision*. Retrieved on May 12, 2020 from <https://www.newvision.co.ug/news/1507233/makerere-ranked-fifth-africa>.
- Lynton, E. A. (1996). Ensuring the quality of outreach: The critical role of evaluating individual and collective initiatives and performance. *Journal of Public Service & Outreach*, 1(2), 16–22.
- Machimana, E. G., Sefotho, M. M., & Ebersöhn, L. (2018). What makes or breaks higher education community engagement in the South African rural school context: A multiple-partner perspective. *Education, Citizenship and Social Justice*, 13(2), 177–196. <https://doi.org/10.1177/1746197917731353>.
- Mack, L. (2010). The philosophical underpinnings of educational research. *Polyglossia*, 19: 5–11.
- Mägi, E., & Beerkens, M. (2016). Linking research and teaching: Are research-active staff members different teachers? *Higher Education*, 72(2), 241–258. <https://doi.org/10.1007/s10734-015-9951-1>.
- Mamdani, M. (2008). Scholars in the Marketplace: The dilemmas of neo-liberal reform at Makerere University, 1989-2005 (review). *African Studies Review*, 51(3), 215–216. <https://doi.org/10.1353/arw.0.0122>.

- Mamiseishvili, K., Miller, M. T., & Lee, D. (2016). Beyond teaching and research: faculty perceptions of service roles at research universities. *Innovative Higher Education*, 41(4), 273–285. <https://doi.org/10.1007/s10755-015-9354-3>.
- Mansour, N. (2016). *Learning and teaching in the knowledge society: Challenges and potentials*. Paper presented at the International Conference on Education, Graduate School, Universitas Negeri Malang. Retrieved on August 2, 2017 from <https://core.ac.uk/download/pdf/267023508.pdf>.
- Mansour, N., EL-Deghaidy, H., Alshamrani, S., & Aldahmash, A. (2014). Rethinking the theory and practice of continuing professional development: Science teachers' perspectives. *Research in Science Education*, 44(6), 949–973. <https://doi.org/10.1007/s11165-014-9409-y>.
- Martinotti, G., & Alberto, G. (1977). The robed baron: The academic profession in the Italian university. *Higher Education*, 6(2), 189–207.
- Massey, W. E. (1997). Uncertainties in the changing academic profession. *The American Academic Profession*, 126(4), 67–94.
- Martin, B. R. (2011). What can bibliometrics tell us about changes in the mode of knowledge production? *Critical Studies in Innovation*, 29(4), 455–479. <https://doi.org/10.1080/08109028.2011.643540>.
- Mashau, P. (2018). The role of university innovation activities in developing agglomeration economies. *Journal of Gender, Information and Development in Africa*, (Special Issue), 45–68. <https://doi.org/DOI:https://doi.org/10.31920/2050-4284/2018/s1n1a3>.
- Mavhunga, C. C. (ed). (2017). *What do science, technology and innovation mean for Africa?* Massachusetts: The MIT Press.
- Matthews, P. H., Karls, A. C., Doberneck, D. M., & Springer, N. C. (2015). Portfolio and certification programs in community engagement as professional development for graduate students: Lessons learned from two land-grant universities. *Journal of Higher Education Outreach and Engagement*, 19(1), 157–184.
- McCann, B. M., Cramer, C. B., & Taylor, L. G. (2015). Assessing the impact of education and

outreach activities on research scientists. *Journal of Higher Education Outreach and Engagement*, 19(1), 65–78.

McNall, M. A., Barnes-Najor, J. V., Brown, R. E., Doberneck, D., & Fitzgerald, H. E. (2015). Systemic engagement: Universities as partners in systemic approaches to community change. *Journal of Higher Education Outreach and Engagement*, 19(1), 7–32.

Mejía, L. M. C., Del Val, M. P., & Àngels Dasí Coscollar, M. D. S. (2020). The institutional isomorphism in the context of organizational changes in higher education institutions. *International Journal of Research in Education and Science*, 6(1), 61–73.

Meyer, H. D., & Rowan, B. (2006). Institutional analysis and the study of education. In *The New Institutionalism in Education* (pp. 1–13). Albany: State University of New York Press.

Meyer, J. W. (1977). The effects of education as an institution. *American Journal of Sociology*, 83(1), 55–77.

Meyer, J. W. (2008). Reflections on institutional theories of organizations. In R. Greenwood, C. Oliver, K. Sahlin, & R. Suddaby (Eds.), *The SAGE Handbook of Organizational Institutionalism* (pp. 790–811). London: Sage.

Meyer, J. W., & Rowan, B. (1977). Institutionalised organisations: Formal structure as myth and ceremony. *American Journal of Sociology*, 83(2), 340–363.

Meyer, R. E. (2008). New sociology of knowledge: Historical legacy and in contribution to current debates in institutional research. In R Greenwood, C. Oliver, T. Lawrence, & R. Meyer (Eds.), *The SAGE Handbook of Organizational Institutionalism* (pp. 519–538). Sage.

Milsom, N. (2014). The changing pattern of Australian university research. *Innovation, Management, Policy & Practice*, 5(1), 49–59.
<https://doi.org/10.5172/impp.2003.5.1.49>.

Ministry of Education and Sports. (2008). *Revised education sector strategic plan 2007-2015*. Kampala: MoES.

Ministry of Finance Planning and Economic Development. (2009). *National science, technology and innovation policy*. Kampala: MFPED.

- Ministry of Finance Planning and Economic Development. (2012). *National science, technology and innovation plan*. Kampala: MFPEd.
- Ministry of Information and Communication Technology. (2014). *National information and communications technology policy for Uganda*. Kampala: MICT. Retrieved on June 23, 2018, from http://ict.go.ug/wp-content/uploads/2018/11/ICT_Policy_2014.pdf.
- Molla, T., & Cuthbert, D. (2018). Re-imagining Africa as a knowledge economy: Premises and promises of recent higher education. *Journal of Asian and African Studies*, 53(2), 250–267. <https://doi.org/10.1177/0021909616677370>.
- Mooko, T., Sall, H. N., & Cobbold, C. (2009). *Revitalizing higher education in sub-saharan Africa: A United Nations university project report. The United Nations University Project Report* (Vol. 5). Tokyo.
- Moreno, J. M. (2005). *Learning to teach in the knowledge society*. Washington D.C: World Bank.
- Morgan, G. (1998). *Images of organizations: The executive edition*. Thousand Oaks, CA: Sage.
- Mouyabi, J. (2011). Higher education in the wake of new ICT: Reaping benefits or creating more problems through E-Learning?. *South African Journal of Higher Education*, 24(5), 1178–1189.
- Mtawa, N. N., Fongwa, S. N., & Wangenge-Ouma, G. (2016). The scholarship of university-community engagement: Interrogating Boyer's model. *International Journal of Educational Development*, 49, 126–133. <https://doi.org/10.1016/j.ijedudev.2016.01.007>.
- Mudimbe, V. Y. (1988). *The invention of Africa: Gnosis, philosophy and the order of knowledge*. Bloomington & Indianapolis: Indiana University Press.
- Mugabi, H. (2015). Institutional commitment to community engagement: A case study of Makerere University. *International Journal of Higher Education*, 4(1), 187–199. <https://doi.org/10.5430/ijhe.v4n1p187>.
- Mugimu, C. B., Nakabugo, M. G., & Katunguka, E. R. (2013). Developing capacity for research and teaching in higher education: A case of Makerere University. *World*

Journal of Education, 3(6), 33–45. <https://doi.org/10.5430/wje.v3n6p33>.

Muller, J. (2012). *Higher education South Africa's office response to the national development plan - vision for 2030*. Pretoria: Higher Education South Africa.

Muriisa, R. K. (2014). Rethinking the role of universities in Africa : Leadership as a missing link in explaining university performance in Uganda. *Jhea/Resa*, 12(1), 69–92.

Muriisa, R. K., & Rwabyoma, A. S. (2019). Globalisation and knowledge production in higher education: The impact of internationalisation on university education in Rwanda and Uganda. *African Journal of Public Sector Development and Governance*, 2(1), 25–48.

Musselin, C. (2013). How peer review empowers the academic profession and university managers: Changes in relationships between the state, universities and the professoriate. *Research Policy*, 42(5), 1165–1173. <https://doi.org/10.1016/j.respol.2013.02.002>.

Muvawala, J. (2015). *The pulse of the economy 2014/2015: Uganda's macroeconomic performance and realities of foreign exchange depreciation*. Kampala, Uganda.

Muvawala, J. (2017). The Place of universities in national human resource planning for Vision 2040. *Paper Presented to the Uganda Vice Chancellors Forum Conference, 6th October 2017*. Kampala.

Muzio, D., Brock, D. M., & Suddaby, R. (2013). Professions and institutional change: Towards an institutionalist sociology of the professions. *Journal of Management Studies*, 50(5), 699–721. <https://doi.org/10.1111/joms.12030>.

Najjingo, E. (2016, April 28). Professor Suruma challenges academic institutions to focus on research. *MUBs News*, pg. 1.

Nakayiwa, F. (2016). Higher Education and development: Prospects for transforming agricultural education in Uganda. *African Journal of Rural Development*, 1(2), 193–204.

Nakkazi, E. (2019, July 6). Universities' growing awareness of intellectual property. *University World News*. Retrived June 4, 2020 from <https://www.universityworldnews.com/post.php?story=2019062510194187>.

National Council for Higher Education. (2018). *The state of higher education and training in*
240

Uganda 2015/16: A report on higher education delivery and institutions. Kampala: NCHE.

National Council for Higher Education. (2019). *The state of higher education and training in Uganda 2017/18: A report on higher education delivery and institutions.* Kampala: NCHE.

National Planning Authority. (2007). *Uganda vision 2040.* Kampala. Retrieved on October 11, 2017 from <http://www.http//npa.ug/wp-content/themes/npatheme/documents/vision2040.pdf>.

National Planning Authority. (2015). *Second national development plan 2015/16-2019-20 (NDPII).* Kampala: NPA.

National Planning Authority. (2018). *The national human resource development planning framework for Uganda.* Kampala: NPA.

National Planning Commission. (2011). *National Development Plan, 2011 - Our future - make it work.* Retrieved on October 11, 2017 from https://http://www.dac.gov.za/sites/default/files/NDP%202030%20-%20Our%20future%20-%20make%20it%20work_0.pdf

National Planning Commission. (2020a). *Analysis of Post school education and training trends towards NDP 2030.* Pretoria: NPC.

National Planning Commission. (2020b). *Digital futures: South Africa's digital readiness for the fourth industrial revolution.* Pretoria: NPC.

Ndofirepi, A. (2017). African universities on a global ranking scale: Legitimation of knowledge hierarchies. *South African Journal of Higher Education*, 31(1), 155–174. <https://doi.org/http://dx.doi.org/10.20853/31-1-1071>.

Neumann, R., & Tan, K. K. (2011). From PhD to initial employment: The doctorate in a knowledge economy. *Studies in Higher Education*, 36(5), 601–614. <https://doi.org/10.1080/03075079.2011.594596>.

Ng C.C., Nakano M., Fox, R. (2016). Globalised processes and their influences on university learning and teaching in advanced knowledge economies in the Asia-Pacific Region.

- In: C. Ng & R. Fox (Ed.), *Reforming Learning and Teaching in Asia-Pacific Universities*. (Vol. 33). Singapore: Springer.
- Nkoana, E. M., & Dichaba, M. M. (2017). Development and application of conceptual and analytic frameworks for community engagement at a South African higher education institution. *South African Journal of Education*, 31(6), 177–196.
- North, D. C. (1990). Institutional Change: A framework of analysis. *Journal of Theoretical Politics*, (Fall), 1–23.
- Nowotny, H., Scott, P., & Gibbons, M. (2003). Introduction 'mode 2' revisited: The new production of knowledge. *Minerva*, 41(3), 179–194. <https://doi.org/10.1023/A:1025505528250>.
- Ntshoe, I., Higgs, P., Higgs, L., & Wolhuter, C. (2008). The changing academic profession in higher education and new managerialism and corporatism in South Africa. *South African Journal of Higher Education*, 22(2), 391–403. <https://doi.org/10.4314/sajhe.v22i2.25793>.
- Nweze, C. M. T. (2010). The use of ICT in Nigerian universities: A study of Obafemi Awolowo university, Ile-Ife. *Library Philosophy and Practice (e Journal)*, 494.
- Oanda, I., & Sall, E. (2016). From peril to promise: Repositioning higher education for the reconstruction of Africa's future. *International Journal of African Higher Education*, 3(1). <https://doi.org/10.6017/ijahe.v3i1.9637>.
- Ochwa-Echel, J. (2013). Neoliberalism and university education in Sub-Saharan Africa. *SAGE Open*, July-September: 1-8. <https://doi.org/10.1177/2158244013504933>.
- Ochwa-Echel, J. (2016). Private universities in Uganda: Issues and challenges. *International Journal of Education and Social Science*, 3(3), 7–18.
- Oliver, C. (1991). Strategic responses to institutional processes Source. *Academy of Management Review*, 16(1), 145–179.
- Oliver, C. (1997). Sustainable competitive advantage: Combining institutional and resource-based views. *Strategic Management Journal*, 18: 697–713.
- Onwuegbuzie, A. J., Gerber, H. R., & Abrams, S. S. (2017). Mixed methods research. *The*

International Encyclopedia of Communication Research Methods. Retrieved on October 19, 2018. <https://doi.org/doi:10.1002/9781118901731.iecrm0156>.

Onyancha, O. B. (2020). Towards a knowledge specialisation index for Sub-Saharan Africa: An informetrics study. *Journal of the Knowledge Economy*, 11: 373-389. <https://doi.org/https://doi.org/10.1007/s13132-018-0548-7>.

Organisation for the Economic Co-operation and Development. (1996). *The knowledge based economy*. Paris: OECD.

Organisation for the Economic Co-operation and Development/Centre for Educational Research and Innovation. (2008). *21st century learning: Research, innovation and policy*. OECD/CERI International Conference "Learning in the 21st Century: Research, Innovation Policy". Retrieved on June 6, 2020 from <http://www.oecd.org/site/educeri21st/40554299.pdf>.

Ozga, J. (2011). Knowledge transfer and transformation: Moving knowledge from research to policy. *Perspectiva*, 29(1), 49–67. <https://doi.org/10.5007/2175-795X.2011v29n1p49>.

Pallant, J. (2016). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS*. (6th ed.). London, UK: McGraw-Hill Education.

Papadimitriou, A. (2011). *The enigma of quality in greek higher education: A mixed methods study of introducing quality management into Greek higher education*. Enschede: Center for Higher Education Policy Studies (CHEPS). <https://doi.org/10.3990/1.9789036531559>.

Park, T. (2012). Academic capitalism and its impact on the American professoriate. *Journal of the Professoriate*, 6(1), 84–99. <https://doi.org/10.1007/BF02443895>.

Paterson, A. N. M. (2002). Is South Africa ready to compete in the knowledge economy? *South African Journal of Information Management*, 4: 1–12.

Patra, S. K., & Muchie, M. (2018). Research and innovation in South African universities: from the triple helix's perspective. *Scientometrics*, 116(1), 51–76. <https://doi.org/10.1007/s11192-018-2764-0>.

Perkin, H. (2007). History of universities. In J. J. F. Forrest & P. G. Altbach (Eds.), *International handbook of higher education* (pp. 159–205). Springer, Dordrecht.

https://doi.org/10.1007/978-1-4020-4012-2_10.

Perkmann, M., Tartari, V., McKelvey, M., Autio, E., Broström, A., D'Este, P., ... Sobrero, M. (2013). Academic engagement and commercialisation: A review of the literature on university-industry relations. *Research Policy*, 42(2), 423–442. <https://doi.org/10.1016/j.respol.2012.09.007>.

Pfeffer, G., & Salancik, G. (1978). *The external control of organisations: A resource dependence perspective*. New York: Harper and Row.

Phillips, F., Yu, C.Y., Hameed, T., & El Akhdary, M. A. (2017). The knowledge society's origins and current trajectory. *International Journal of Innovation Studies*, 1(3), 175–191. <https://doi.org/10.1016/j.ijis.2017.08.001>.

Phillips, N., Lawrence, T. B., & Hardy, C. (2004). Discourse and institutions. *Academy of Management Review*, 29(4), 636–652. <https://doi.org/10.5465/amr.2004.14497617>.

Piirainen, K. A., Andersen, A. D., & Andersen, P. D. (2016). Foresight and the third mission of universities: The case for innovation system foresight. *Foresight*, 18(1), 24–40. <https://doi.org/10.1108/FS-04-2014-0026>.

Planning & Development Department. (2007a). *Annual report 2007*. Retrieved on March 13, 2018 from <http://pdd.mak.ac.ug/pdd-publications/>

Planning & Development Department. (2008). *Annual report 2008*. Retrieved on March 13, 2018 from <http://pdd.mak.ac.ug/pdd-publications/>

Planning & Development Department. (2009). *Annual report 2009*. Retrieved on March 13, 2018 from <http://pdd.mak.ac.ug/pdd-publications/>

Planning & Development Department. (2010). *Annual report 2010*. Retrieved on March 13, 2018 from <http://pdd.mak.ac.ug/pdd-publications/>

Planning & Development Department. (2011). *Annual report 2011*. Retrieved on March 13, 2018 from <http://pdd.mak.ac.ug/pdd-publications/>

Planning & Development Department. (2012). *Annual report 2012*. Retrieved on March 13, 2018 from <http://pdd.mak.ac.ug/pdd-publications/>

Planning & Development Department. (2013). *Annual report 2013*. Retrieved on March 13, 2018 from <http://pdd.mak.ac.ug/pdd-publications/>

Planning & Development Department. (2014). *Annual report 2014*. Retrieved on March 13, 2018 from <http://pdd.mak.ac.ug/pdd-publications/>

Planning & Development Department. (2015). *Annual report 2015*. Retrieved on March 13, 2018 from <http://pdd.mak.ac.ug/pdd-publications/>

Planning & Development Department. (2016). *Annual report 2016*. Retrieved on March 13, 2018 from <http://pdd.mak.ac.ug/pdd-publications/>

Planning & Development Department. (2017a). *Annual report 2017*. Retrieved on March 13, 2018 from <http://pdd.mak.ac.ug/pdd-publications/>

Planning and Development Department. (2007b). *Makerere university strategic plan 2008/09 - 2018/19*. Kampala: PDD.

Planning and Development Department. (2017b). *Makerere University strategic plan review report*. Kampala: PDD.

Pons, J. de P. (2010). Higher education and the knowledge society. *Information and Digital Competencies in Higher Education*, 7(2), 6–15.

Portnoi, L. M. (2015). Pushing a stone up a hill: A case study of the working environment of South African academics. *Research in Comparative and International Education*, 10(2), 257–274. <https://doi.org/10.1177/1745499915571721>.

Pouris, A., Inglesi-lotz, R., Africa, S., Africa, S., & Inglesi-lotz, R. (2014). The contribution of higher education institutions to the South African economy. *South African Journal of Science* 110 (3), 1–5.

Powell, W. W., & Colyvas, J. A. (2008). Microfoundations of institutional theory. In R. Greenwood, C. Oliver, K. Sahlin, & R. Suddaby (Eds.), *The SAGE Handbook of Organizational Institutionalism* (pp. 276–298). London: Sage. <https://doi.org/10.4135/9781849200387.n11>.

Powell, W. W., & DiMaggio, P. J. (1991). Introduction to new institutionalism in organisational analysis. In R. Greenwood, C. Oliver, K. Sahlin, & R. Suddaby (Eds.),

- Institutional Theory in Organisational Studies* (pp. 149–192). Thousand Oaks, CA: Sage.
- Powell, W. W., (2007). The New Institutionalism. *The International Encyclopedia of Organization Studies*, 144–145.
- Probst, B., & Berenson, L. (2014). The double arrow: How qualitative social work researchers use reflexivity. *Qualitative Social Work*, 13(6), 813–827. <https://doi.org/10.1177/1473325013506248>.
- Ragin, C. C. (1997). Turning the tables: How case-oriented research challenges variable-oriented research. *Comparative Social Research*, 16: 27-42.
- Ramoroka, T., Tsheola, J., & Sebola, M. (2017). South Africa’s pedagogical transformation for participation in the global knowledge economy: Is it a panacea for modern development? *African Journal of Science Technology Innovation and Development*, 9(3), 315–322. <http://dx.doi.org/10.1080/20421338.2017.1322799>.
- Rawn, C. D., & Fox, J. A. (2018). Understanding the work and perceptions of teaching focused faculty in a changing academic landscape. *Research in Higher Education*, 59(5), 591–622. <https://doi.org/10.1007/s11162-017-9479-6>.
- Reinard, J. (2006). *Communication research statistics*. Thousand Oaks, CA: Sage Publication Inc. <https://doi.org/10.4135/9781412983693>.
- Ricourte, P. (2016). Pedagogies for the open knowledge society. *International Journal of Educational Technology in Higher Education*, 13: 32. <https://doi.org/10.1186/s41239-016-0033-y>.
- Rieu, A. (2005). *What is knowledge society? The epistemic turn* (HAL archives-ouvertes halshs-00552293).
- Roberts, J. (2009). The global knowledge economy in question. *Critical Perspectives on International Business*, 5(4), 285–303. <https://doi.org/10.1108/17422040911003033>.
- Rust, Y. D. (2003). “Editorial”. *Comparative Education Review*, 47(3), ii–vii.
- Sahlberg, P., & Boce, E. (2010). Are teachers teaching for a knowledge society? *Teachers and Teaching: Theory and Practice*, 16(1), 31-48. <https://doi.org/10.1080/13540600903475611>.

- Salkind, N. J. (2007). *Encyclopedia of measurement and statistics*. Thousand Oaks, CA: Sage Publication Inc.
- Salmi, J. (2009). *The challenge of establishing world class universities*. Washington, DC: The World Bank. <https://doi.org/10.1596/978-0-8213-7865-6>.
- Salmi, J. (2010). Constructing knowledge societies: New challenges for tertiary education. *Higher Education in Europe*, 28(1), 65–69. <https://doi.org/10.1080/0379772032000110125>.
- Saltmarsh, J. (2016). Ernest Lynton and the tyranny of research. *Journal of Higher Education Outreach and Engagement*, 20(1), 45–52.
- Sanyal, B. C., & Varghese, N. V. (2006). *Research capacity of the higher education sector in developing countries*. Paris: UNESCO.
- Sarkar, S. (2012). The role of information and communication technologies (ICTs) in higher education. *The Science Probe*, 1(1), 30–41.
- Satti, S., & Mohamed, O. (2018). The impact of ICT in public and private universities in Sudan. *Journal of the Knowledge Economy*, 9: 1391–1414. <https://doi.org/10.1007/s13132-016-0429-x>.
- Scaratti, G., Galuppo, L., Gorli, M., Gozzoli, C., & Ripamonti, S. (2017). The social relevance and social impact of knowledge and knowing. *Management Learning*, 48(1), 57–64. <https://doi.org/10.1177/1350507616680563>.
- Scimago Institutions Ranking. (2020). *Assessing Universities and other research focused institutions*. Retrieved on August 7, 2020 from [https://www.scimagoir.com/rankings.php?sector=Higher educ](https://www.scimagoir.com/rankings.php?sector=Higher+educ).
- Schoonmaker, M. G., & Carayannis, E. G. (2013). Mode 3 : A proposed classification scheme for the knowledge economy and society. *Journal of the Knowledge Economy*, 4, 556–577. <https://doi.org/10.1007/s13132-012-0097-4>.
- Scott, P. (1983). The state of the academic profession in Britain. *European Journal of Education*, 18(3), 245–257.
- Scott, P. (2006). The academic profession in a knowledge society: *The formative years of*

scholars. Wenner Green International Series, 83: 19.

Scott, W. R. (1987). The adolescence of institutional theory. *Administrative Science Quarterly*, 32(4), 493–511.

Scott, W. R. (1981). *Organizations: Rational, natural, and open Systems*. Englewood Cliffs: Prentice-Hall.

Scott, W. R. (2003). *Organizations: rational natural and open Systems* (5th ed.). Upper Saddle River, NJ: Prentice Hall.

Scott, W. R. (1995). Crafting an analytic framework 1: Three pillars of institutions. In Royton Greenwood, C. Oliver, K. Sahlin, & R. Suddaby (Eds.), *Institutional theory in organisational studies* (pp. 219–244). Thousand Oaks, CA: Sage.

Scott, W. R. (2008). An overview and a caution. In *Institutions and organisations: Ideas and interests* (3rd ed.). Thousand Oaks, CA: Sage.

Shah, T., & Brennan, J. (eds). (2011). *Higher education and society in changing times: looking back and looking forward*. The Open University: Center for Higher Education Research and Innovation.

Sherman, D. J. (2013). Partnering to survive: Reflections on the pursuit of campus-community initiatives prior to tenure. *Journal of Higher Education Outreach and Engagement*, 17(4), 155.

Shin, C. J., Lee, J. S., & Kim, Y. (2013). Research collaboration across higher education systems: Maturity, language use and regional differences. *Studies in Higher Education*, 38(3), 425–440. <https://doi.org/10.1080/03075079.2013.774585>.

Shinn, T. (2002). The triple helix and new production of knowledge. *Social Studies of Science*, 32(4), 599–614. <https://doi.org/10.1177/0306312702032004004>.

Sifuna, D. N. (2014). Neoliberalism and the changing role of universities in Sub-Saharan Africa : The case of research and development. *Journal of Higher Education in Africa*, 12(2), 109–130. <https://doi.org/10.1016/j.atherosclerosis.2011.03.009>.

Singh, M. (2011). Equity and quality in the revitalisation of African higher education: Trends and challenges. *Research in Comparative and International Education*, 6(4), 348–365.

<https://doi.org/10.2304/rcie.2011.6.4.348>.

Sivak, E., & Yudkevich, M. (2017). The academic profession in Russia's two capitals: The impact of 20 years of transition. *European Educational Research Journal*, 16(5), 626–644. <https://doi.org/10.1177/1474904117701142>.

Slaughter, S., & Leslie, L. L. (2001). Expanding and elaborating the concept of academic capitalism. *Organization*, 8(2), 154–161. <https://doi.org/10.1177/1350508401082003>.

Slaughter, S., & Rhoades, G. (2009). *Academic capitalism and the new economy: Markets, state, and higher education*. Baltimore: Johns Hopkins University Press.

Smith, K. (2000). *What is the 'knowledge economy'? Knowledge-intensive industries and distributed knowledge bases. Knowledge Creation Diffusion Utilization*. Oslo: STEP Group.

Snellman, C. L. (2015). University in knowledge society: Role and challenges. *Journal of System and Management Sciences*, 5(4), 84–113.

Sooryamoorthy, R. (2013). Scientific collaboration in South Africa. *South African Journal of Science*, 109(5–6), 1–5. <https://doi.org/10.1590/sajs.2013/a0016>.

Ssempebwa, J., Teferra, D., & Bakkabulindi, F. E. K. (2016). 'Swim or sink': State of induction in the deployment of early career academics into teaching at Makerere University. *Studies in Higher Education*, 41(10), 1854–1868. <https://doi.org/10.1080/03075079.2016.1221649>.

Stehr, N. (2007). Societal transformations, globalisation and the knowledge society. *International Journal of Knowledge and Learning*, 3(2–3), 139–153. <https://doi.org/10.1504/ijkl.2007.015548>.

Stehr, N. (2009). Useful scientific knowledge: What is relevant science for society? *Journal of Applied Social Science*, 3(1), 18–26.

Stehr, N. (2010). Theories of the information age. *Historical Developments and Theoretical Approaches in Sociology*, 2: 375–394.

Stehr, N., & Adolf, M. (2018). The price of knowledge. *Tempo Social*, 30(1), 179–232.

<https://doi.org/10.11606/0103-2070.ts.2018.137735>.

Stensaker, B., & Benner, M. (2013). Doomed to be entrepreneurial: Institutional transformation or institutional lock-ins of 'new' universities. *Minerva*, 51: 399–416. <https://doi.org/10.1007/s11024-013-9238-6>.

Stensaker, B., Lee, J. J., Rhoades, G., Ghosh, S., Vance, H., Çalikoğlu, A., ... Peel, C. (2019). Stratified University Strategies: The Shaping of institutional legitimacy in a global perspective. *The Journal of Higher Education*, 90(4), 539–562. <https://doi.org/10.1080/00221546.2018.1513306>.

Stewart, P. (2007). Re-envisioning the Academic Profession in the Shadow of Corporate Managerialism. *Journal of Higher Education in Africa*, 5(1), 131–147.

Strier, R., & Shechter, D. (2016). Visualizing access: Knowledge development in university–community partnerships. *Higher Education*, 71(3), 343–359. <https://doi.org/10.1007/s10734-015-9907-5>.

Suchman, C. M. (1995). Strategic and institutional approaches. In Royston Greenwood, C. Oliver, K. Sahlin, & R. Suddaby (Eds.), *Institutional theory in organisational studies* (pp. 1–42). Thousand Oaks, CA: Sage.

Suddaby, R. (2010). Challenges for institutional theory. *Journal of Management Inquiry*, 19(1), 14–20. <https://doi.org/10.1177/1056492609347564>.

Suddaby, R. (2015). Can institutional theory be critical? *Journal of Management Inquiry*, 24(1), 93–95. <https://doi.org/10.1177/1056492614545304>.

Suddaby, R., & Greenwood, R. (2005). Rhetorical strategies of legitimacy. *Administrative Science Quarterly*, 50(1), 35–67.

Suddaby, R., & Greenwood, R. (2009). Methodological issues in researching institutional change. In D. A. Buchanan & A. Bryman (Eds.), *The sage handbook of organisational research methods*. (pp. 177-195). Los Angeles: Sage.

Suddaby, R., Seidl, D., & Ke, J. K. (2013). Strategy-as-practice meets neo-institutional theory. *Strategic Organisation*, 11(3), 329-344. <https://doi.org/10.1177/1476127013497618>.

Sundać, D., & Krmpotić, I. F. (2011). Knowledge economy factors and the development of

- knowledge-based economy. *Croatian Economic Survey*, 13(1), 105–141.
- Swarts, P., Hooker, M., Chehidi, T., & Kumar, S. (2017). *Assessment of knowledge society development in Uganda*. Retrieved on March 7, 2018 from <https://en.unesco.org/sites/default/files/knowledge.societies-policy-library.pdf>.
- Swartz, R., Ivancheva, M., Czerniewicz, L., & Morris, N. P. (2019). Correction to: Between a rock and a hard place: dilemmas regarding the purpose of public universities in South Africa. *Higher Education*, 77(4), 567–583. <https://doi.org/10.1007/s10734-018-0348-9>.
- Talab, A. H., Scholten, V., & van Beers, C. (2020). The role of universities in inter-organizational knowledge collaborations. *Journal of the Knowledge Economy* 11(2), 458–478. <https://doi.org/https://doi.org/10.1007/s13132-018-0545-x>.
- Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach’s alpha. *International Journal of Medical Education*, 2:53–55. <https://doi.org/10.5116/ijme.4dfb.8dfd>.
- Teferra, D. (2015, August 29). The blunder of ranking african universities. *University World News (African Edition)*. Retrieved on July 25, 2020 from <https://www.universityworldnews.com/post.php?story=20150828122639186>.
- Teferra, D. (2016). Beyond peril and promise — from omission to conviction. *International Journal of African Higher Education*, 3(1), 7–18.
- Teichler, U., Arimoto, A., & Cummings, W. K. (2013). The changing academic profession. In W. K. Cummings & A. Arimoto (Eds.), *The changing academy-The changing academic profession in international perspective 1*. New York: Springer, Dordrecht. <https://doi.org/10.1007/978-94-007-6155-1>.
- The Center for Cross Boarder Studies. (2007). *Teaching in the knowledge society*. Northern Ireland: Standing Conference on Teacher Education, North & South (SCoTENS). Retrieved on May 7, 2018 from <https://scotens.org/site/wp-content/uploads/2007-scotens.pdf>.
- The Government of Rwanda & the World Bank. (2014). *Higher education for science, technology and innovation: Accelerating Africa’s aspirations(the Kigali Communique)*. Retrieved on April 7, 2019 from

<https://www.worldbank.org/en/news/feature/2014/03/12/higher-education-in-science-and-technology-is-critical-for-africas-development>.

The Times Higher Education University Ranking. (2019). The times higher education university ranking 2020. Retrieved on November 13, 2019, from https://www.timeshighereducation.com/world-university-rankings/2020/world-ranking#!/page/0/length/25/sort_by/rank/sort_order/asc/cols/stats.

Tijssen, R., Lamers, W., & Yegros, A. (2017). *UK universities interacting with industry: patterns of research collaboration and inter-sectoral mobility of academic researchers*. (Center for Global Higher Education Working Paper Series No. 14).

Tolbert, P. S., & Zucker, L. G. (1983). Institutional sources of change in the formal structure of organizations: The diffusion of civil service reform, 1880-1935. *Administrative Science Quarterly*, 28(1), 22–39. <https://doi.org/10.2307/2392383>.

Trust Africa. (2015, March). *Declaration and action plan from the 1st African higher education summit on revitalising higher education for Africa's future*. Dakar: Senegal.

Turk, M., & Ledić, J. (2016). Between teaching and research: Challenges of the academic profession in Croatia. *C-E-P-S Journal*, 6(1), 95–111.

Turner, V. K., Benessaiah, K., Warren, S., & Iwaniec, D. (2015). Essential tensions in interdisciplinary scholarship: Navigating challenges in affect, epistemologies, and structure in environment–society research centers. *Higher Education*, 70(4), 649–665. <https://doi.org/10.1007/s10734-015-9859-9>.

Uganda Bureau of Statistics. (2014). *Uganda national household survey 2012/2013*. Retrieved on August 18, 2018 from <https://www.ubos.org/publications/statistical/23/>.

Uganda National Council for Science and Technology. (2016). *National innovation survey 2011-2014*. Kampala: UNCST.

UNESCO Institute for Statistics. (2019). *Global investments in R&D. Sustainable Development Goals* (Vol. 54). Paris: UNESCO. Retrieved on March 17, 2020 from <http://uis.unesco.org/sites/default/files/documents/fs54-global-investments-rd-2019-en.pdf>

- UNESCO. (2005). *Towards knowledge societies*. Paris: UNESCO.
- UNESCO. (2016a). *Knowledge societies policy handbook*. Paris: UNESCO.
- UNESCO. (2016b). *UNESCO science report: Towards 2030*. Paris: UNESCO.
- University of the Western Cape. (2007). *Annual report*. Retrieved on March 13, 2018 from <https://www.uwc.ac.za/SO/Finance/Pages/Annual-Reports.aspx>.
- University of the Western Cape. (2008). *Annual report*. Retrieved on March 13, 2018 from <https://www.uwc.ac.za/SO/Finance/Pages/Annual-Reports.aspx>.
- University of the Western Cape. (2009a). *Annual report*. Retrieved on March 13, 2018 from <https://www.uwc.ac.za/SO/Finance/Pages/Annual-Reports.aspx>.
- University of the Western Cape. (2009b). *Institutional Operating Plan (2010-2014)*. Cape Town: UWC. Retrieved on March 13, 2018 from <http://www.uwc.ac.za>.
- University of the Western Cape. (2010). *Annual report*. Retrieved on March 13, 2018 from <https://www.uwc.ac.za/SO/Finance/Pages/Annual-Reports.aspx>.
- University of the Western Cape. (2011). *Annual report*. Retrieved on March 13, 2018 from <https://www.uwc.ac.za/SO/Finance/Pages/Annual-Reports.aspx>.
- University of the Western Cape. (2012). *Annual report*. Retrieved on March 13, 2018 from <https://www.uwc.ac.za/SO/Finance/Pages/Annual-Reports.aspx>.
- University of the Western Cape. (2013). *Annual report*. Retrieved on March 13, 2018 from <https://www.uwc.ac.za/SO/Finance/Pages/Annual-Reports.aspx>.
- University of the Western Cape. (2014). *Annual report*. Retrieved on March 13, 2018 from <https://www.uwc.ac.za/SO/Finance/Pages/Annual-Reports.aspx>.
- University of the Western Cape. (2015). *Annual report*. Retrieved on March 13, 2018 from <https://www.uwc.ac.za/SO/Finance/Pages/Annual-Reports.aspx>.
- University of the Western Cape. (2016a). *Annual Report*. Retrieved on March 13, 2018 from <https://www.uwc.ac.za/SO/Finance/Pages/Annual-Reports.aspx>.

- University of the Western Cape. (2016). *UWC Institutional Operating Plan 2016-2020 White Paper*. Retrieved on March 13, 2018 from <http://www.uwc.ac.za>.
- University of the Western Cape. (2017). *Annual report*. Retrieved on March 13, 2018 from <https://www.uwc.ac.za/SO/Finance/Pages/Annual-Reports.aspx>.
- University of the Western Cape. (2018). *Annual report*. Retrieved on March 13, 2018 from <http://www.uwc.ac.za>.
- University of the Western Cape. (2019). *UWC History*. Retrieved on March 13, 2018 from <http://www.uwc.ac.za/Pages/History.aspx>.
- Vadra, R. (2017). Knowledge Economy in BRICS: A case of South Africa. *Journal of the Knowledge Economy*, 8: 1229–1240. <https://doi.org/https://doi.org/10.1007/s13132-017-0512-y>.
- van der Walt, J. L. (2017). Some recent responses to neoliberalism and its views on education. *HTS Teologiese Studies / Theological Studies*, 73(3), 1–8. <https://doi.org/10.4102/hts.v73i3.4493>.
- van der Walt, J. L., Wolhuter, C., Potgieter, F., Higgs, P., Higgs, L., & Ntshoe, I. (2011). The academic profession in the third world: A comparative study. *Journal of Third World Studies*, 28(2), 233–258.
- Veit, D. R., Lacerda, D. P., Camargo, L. T. R., Kipper, L. M., & Dresch, A. (2017). Towards mode 2 knowledge production: Analysis and proposal of framework for research in the business process. *Business Process Management Journal*, 23(2), 293–328.
- Walugembe, J. (2012). Uganda needs knowledge based economy. *New Vision*. Retrieved on February 2, 2018 from https://www.newvision.co.ug/new_vision/news/1299768/uganda-knowledge-economy.
- Weber, A. S. (2011). The role of education in knowledge economies in developing countries. *Procedia - Social and Behavioral Sciences*, 15, 2589–2594. <https://doi.org/10.1016/j.sbspro.2011.04.151>.
- Williams, C. (2007). Research methods. *Journal Oof Business & Economic Research*, 5(3), 65–72.

- Williams, K. (2008). Troubling the concept of the “academic profession” in 21st Century higher education. *Higher Education*, 56(5), 533–544. <https://doi.org/10.1007/s10734-007-9109-x>.
- Wolhuter, C. C. (2015). 1994: new academic profession for a new South Africa? *Studies in Higher Education*, 40(8), 1377–1391. <https://doi.org/10.1080/03075079.2015.1060712>.
- Wolhuter, C., & Higgs, L. (2006). The academic profession in South Africa. *South African Review of Education with Production*, 12(1), 63–76.
- Wolhuter, C., Higgs, P., & G. Higgs, L. (2016). The South African academic profession: Personal characteristics, career trajectories, identities and sense of commitment. In J. Golaz-Fontes, A. Arimoto, U. Teichler & J. Brennan (Eds.), *Biographies and careers throughout academic life* (pp. 89–102), Springer, Cham. https://doi.org/10.1007/978-3-319-27493-5_6.
- Wolhuter, Charste C., Higgs, P., Higgs, L., & Ntshoe, I. (2010). How affluent is the South African higher education sector and how strong is the South African academic profession in the changing international academic landscape? *South African Journal of Higher Education*, 24(1), 196–214. <https://doi.org/10.4314/sajhe.v24i1.63437>.
- Wondwosen, T. (2019, October 31). Catalysing R&D: The need for more government funding. *University World News (African Edition)*. Retrieved on May 19, 2020 from <https://www.universityworldnews.com/post.php?story=20191028062534176>.
- World Bank. (2007). *Building knowledge economies: Advanced strategies for development*. Washington DC: World Bank Group.
- World Bank. (2014). *Africa higher education centers of excellence project (2014–2018): Project appraisal*. Washington DC: World Bank.
- World Bank. (2017). *Higher education for development: An evaluation of the World Bank Group’s support*. Retrieved on April 8, 2018 from <http://documents.worldbank.org>.
- World Bank. (2018). *Africa higher education centers of excellence project (P126974)*. Washington D.C: World Bank.

Yin, K. R. (2014). *Case study research: Design and methods* (5th ed.). Thousand Oaks: Sage.

Yonezawa, A., & Inenaga, Y. (2017). The consequences of market-based mass postsecondary education: Japan's challenges. In P. G. Altbach, L. Reisberg, H. de Wit (Eds.) *Responding to massification: Differentiation in postsecondary education worldwide*. (pp. (82–90). Rotterdam: Sense Publishers. https://doi.org/10.1007/978-94-6351-083-7_8

Zucker, L. G. (1987). Institutional theories of organization. *Annual Review of Sociology*. *13*(13), 443–464. <https://doi.org/10.1146/annurev.so.13.080187.002303>.



Appendices

Appendix A: Survey Questionnaire

FACULTY OF EDUCATION

Self-Administered Questionnaire for Academics of Makerere University, Uganda and the
University of the Western Cape, South Africa

University of the Western Cape
Robert Sobukwe Road
Bellville 7535
Republic of South Africa

Dear Sir/Madam

I am a PhD student at the University of the Western Cape. I am carrying out research on the academic profession and the rising knowledge societies in Uganda and South Africa. The focus of the survey is on research, teaching and community outreach in Makerere University and the University of the Western Cape. As an academic, you are invited to participate in the survey to facilitate the acquisition of data as part of my PhD research. The questionnaire requires at most 20 minutes of your time. Your responses will be treated with utmost confidentiality, as the tool is anonymous. For any clarification and the resulting correspondences, please contact me via the email and address provided.

I am looking forward to your cooperation.

.....
Florence Ndibuza
(Student Researcher UWC)
3774891@myuwc.ac.za

.....
Prof. Patricio Langa
(Supervisor)
planga@uwc.ac.za

SECTION A: Demographic Information Please tick the most appropriate answer as per the options given for the questions in this section.		
Code	Question	Description
A1	Sex	1. Female 2. Male
A2	Please identify your department	1) Biotechnology 2) Law & Jurisprudence 3) Chemistry 4) English 5) Sociology & Anthropology 6) Educational Studies 7) Educational Psychology 8) Library & Information Science 9) Computer Science 10) Information Systems 11) Accounting 12) Economics
A3	What is your highest academic qualification	1. PhD 2. Masters
A4	What is your current academic rank?	1. Professor 2. Ass. Professor 3. Senior Lecturer 4. Lecturer 5. Assistant Lecturer
A5	How is your employment situation in the current academic year?	1. Full-time employed 2. Part-time employed
A6	Please indicate the year of the following in your current institution	1. Year of regular fulltime or part time appointment in the higher education sector..... 2. Year of appointment to your current rank.....
A7	Indicate the year of completion for the following degrees	1. First degree..... 2. Second degree..... 3. Doctoral degree..... 4. Post-doctoral studies.....
A8	Since your first degree, how many years have	1. Higher education institution.....

	you been employed in higher education		
SECTION B: Research			
Please answer according to the instructions for each question			
B1	Have you been involved in research in the current or previous year	1. Yes 2. No
B2	How would you characterize the emphasis of your research in the last ten years? (Please tick all that apply to you)	1. Basic/theoretical 2. Applied/practically oriented 3. Commercially oriented/ intended for technological transfer 4. Socially oriented intended for the betterment of society 5. International in scope 6. Based in one discipline 7. Multi-/interdisciplinary
B3	On a scale of 1-5 where 1 represents Not at all , 2 A little , 3 Relatively , 4 Many times and 5 Very many times , to what extent have you done any of the following in the past ten years. (Tick the most appropriate answer)	1. Served as a member of a national/international scientific committee/board/bodies of the 2. Served as a peer reviewer (e.g. for journals) 3. Served as an editor of journals/book series 4. Served as an elected officer or leader in professional/academic association	1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5
B4	On a scale of 1-5 where 1 represents Strongly disagree , 2 Disagree , 3 Neutral , 4 Agree and 5 Strongly agree , to what extent do you agree with the following about your	1. I collaborate with junior academics 2. I collaborate with researchers at institutions in the county 3. I collaborate with international colleagues 4. I collaborate with scholars/researchers outside my discipline	1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5

	research collaborations in the past decade? (Please tick the most suitable answer)		
B5	On a scale of 1-5 where 1 represents Very Low , 2 Low , 3 Moderate , 4 High and 5 Very high , to what extent have you made scholarly contributions to the following in the past 10 years (Tick the most suitable figure)	<ol style="list-style-type: none"> 1. Scholarly books you authored (edited) or co-authored (coedited) 2. Articles published in an academic book or journal 3. Discussion paper, report/monograph written for a funded project 4. Paper presented at a scholarly conference 5. Completed doctoral dissertations supervised 6. Patent/license secured on a process or invention 	<p>1 2 3 4 5</p> <p>1 2 3 4 5</p> <p>1 2 3 4 5</p> <p>1 2 3 4 5</p> <p>1 2 3 4 5</p> <p>1 2 3 4 5</p>
B6	On a scale of 1-5 where 1 represents Strongly disagree , 2 Disagree , 3 Undecided , 4 Agree and 5 Strongly agree to what extent do you consider yourself to be exposed to the following expectations by your institution?	<ol style="list-style-type: none"> 1. Raising funds for the department and university at large 2. Complying to guidelines set by research funders 	<p>1 2 3 4 5</p> <p>1 2 3 4 5</p>
B7	Regarding your preference, do your interests lie primarily in research or teaching? Please select only one response	<ol style="list-style-type: none"> 1. Primarily in teaching 2. In both but leaning towards teaching 3. In both but leaning towards research 4. Primarily in research 	

SECTION C: Teaching

Please answer according to the instructions for each question

C1	Are you currently teaching	1. Yes 2. No
C2	What are your thoughts about your teaching load	1. It has increased 2. It has decreased
C3	During the current or previous academic year, which of the following activities have you been mostly involved in (tick all that apply)	1. Classroom instruction/learning 2. Individualized instruction 3. Learning in projects/project groups 4. Practice instruction 5. ICT based instruction 6. Distance learning instruction 7. Development of course material 8. Curriculum/programme development
C4	On a scale of 1-5 where 1 represents Strongly disagree, 2 Disagree, 3 Undecided 4 Agree and 5 Strongly agree , to what extent do you agree that the institution sets load targets for individual faculty for the following (tick the most appropriate)	1. Number of hours in the classroom 2. Number of students in class 3. Number of masters students for supervision 4. Number of doctoral students for supervision 5. Time for student consultation (face to face and virtual) 6. Hours to be present at the institution	1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5
C5	Please indicate your views on the following aspects on a scale of 1-5 where 1 represents strongly disagree, 2 Disagree, 3 Undecided 4 Agree and 5 strongly agree	1. You are encouraged to improve your instructional skills in response to teaching evaluations 2. There are adequate training courses for enhancing teaching quality 3. Practically oriented knowledge and skills are emphasized in your teaching 4. In your courses, you emphasize international perspectives or content	1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5

		5. Your research activities reinforce your teaching	1 2 3 4 5
		6. Community outreach reinforces your teaching	1 2 3 4 5
		7. Curriculum review of the years reflects adjustments to meet societal needs	1 2 3 4 5
SECTION D: Community Outreach			
Please answer according to the instructions for each question			
D1	On a scale of 1-5 where 1 represents Very Low , 2 Low , 3 Moderate , 4 High and 5 Very high to what extent have you been involved in any of the following activities with external partners in the past ten years (Tick the most appropriate)	<p style="text-align: center;">Research based activities (D1a)</p> <ol style="list-style-type: none"> 1. Patenting and licensing 2. Joint research and publications 3. Innovative research applications in the classroom 4. Evaluation (of policies and developments of companies, government, regions etc.) 5. Consultancy <p style="text-align: center;">Teaching based activities (D1b)</p> <ol style="list-style-type: none"> 1. Curriculum development for external agencies 2. Supervision of student internships and /or student work placements 3. Joint supervision with industry of bachelor, master and/or doctoral thesis 4. Volunteer based work/consultancy in a honorary capacity (e.g. community groups; in cultural, educational, political and social institutions, etc.) 5. Public lectures and speeches 6. Executive, contract tailor-made programs and courses 	<p>1 2 3 4 5</p> <p>1 2 3 4 5</p> <p>1 2 3 4 5</p> <p>1 2 3 4 5</p> <p>1 2 3 4 5</p> <p>1 2 3 4 5</p> <p>1 2 3 4 5</p> <p>1 2 3 4 5</p> <p>1 2 3 4 5</p> <p>1 2 3 4 5</p> <p>1 2 3 4 5</p>
D2	On a scale of 1-5 where 1 represents Very Low , 2 Low , 3 Moderate , 4 High and 5 Very High , to what	<ol style="list-style-type: none"> 1. Research 2. Teaching 	<p>1 2 3 4 5</p> <p>1 2 3 4 5</p>

	extent do your external activities derive from your core engagement in;		
D3	On a scale of 1-5, where 1 represents Not important , 2 A little important , 3 Relative , 4 Important and 5 Very important ; generally how important is community outreach for	<ol style="list-style-type: none"> 1. Your research topics 2. Your teaching assignments 3. Your academic reputation 4. Your career advancement 5. Your academic field or discipline 	<p>1 2 3 4 5</p> <p>1 2 3 4 5</p> <p>1 2 3 4 5</p> <p>1 2 3 4 5</p> <p>1 2 3 4 5</p>
D4	On a scale of 1-5 where 1 represents Not at all , 2 a little , 3 Moderate , 4 Much and 5 Very Much ; to what extent do your external activities contribute to	<ol style="list-style-type: none"> 1. The local community 2. Society at national level 3. Society at continental level 	<p>1 2 3 4 5</p> <p>1 2 3 4 5</p> <p>1 2 3 4 5</p>

Thank You





FACULTY OF EDUCATION

Interview Guide for academics of Makerere University, Uganda and the University of the Western Cape, South Africa

Research Sub question

What is the trajectory of the academic profession in Makerere University and the University of the Western Cape in the last decade, 2007-2018?

Interview Questions

- 1) What does academic research entail in this university?
- 2) Describe with examples the nature of your research in the past decade, 2007-2018
- 3) Why did you take the path of research described in the previous question?
- 4) In your opinion, does your research serve national interest? If yes/No why?
- 5) What does the practice of teaching entail for an academic in this university?
- 6) Describe with examples the nature of your teaching in the past decade, 2007-2018
- 7) Why did you take the path of teaching described in the previous question?
- 8) In your opinion, does your teaching practice serve national interest? If yes/No why?
- 9) What does the practice of community outreach entail in this university?
- 10) Do you engage in community outreach? If yes, describe with examples the nature of your outreach activities over the past decade, 2007-2018
- 11) Why do you engage in activities described in the previous question?
- 12) In your opinion, do the activities you engage in serve national interest? If yes/No why?
- 13) Please share with me any other information you deem important about the practice of research, teaching and community outreach in this university in the past decade.

FACULTY OF EDUCATION
Humanities and Social Sciences Research Ethics Committee
(HSSREC)
CONSENT FORM (Survey & Interviews)



University of the Western Cape

Study title: The academic profession and the rising knowledge societies in Africa: A comparative analysis of research, teaching and community outreach in Makerere University and the University of the Western Cape.

Researcher: Florence Ndibuuza: ID. 3774891

Institution: University of the Western Cape

I have read the information sheet and recognise that my participation in the study is voluntary. I know that I am free to withdraw at any time during the course of the study without any consequences. I understand that any information resulting from this study will be strictly confidential. I realise that I may ask for clarity about any question asked if I wish to do so.

I (a) Agree (b) Not agree to be audio recorded for the interview session.

I give consent for the information I provide to be used by the researcher for a PhD thesis and publication.

I have received a copy of the consent form for my record. I agree to participate in the study.

.....

Respondent's signature

Date

.....

(Name of the respondent)

.....

Researcher's signature

Date.....

.....

(Researcher's name)

Researcher
Florence Ndibuuza
University of the Western Cape
Bellville 7535
Email: 3774891@myuwc.ac.za
Mob. N0. 0634490428

Supervisor
Prof. Patricio Langa
University of the Western Cape
Bellville, 7535
Email: planga@uwc.ac.za

FACULTY OF EDUCATION

Participant Information Sheet (Survey & Interviews)

Title: The academic profession in the rising knowledge societies in Africa: A comparative analysis of Makerere University and the University of the Western Cape.

Purpose of the study

To establish the trends in academic practice in Makerere University and the University of the Western Cape as academia operates under the rising knowledge societies in Uganda and South Africa.

What will be asked of the participant?

Participation in this research is voluntary and a participant has the right to withdraw from this research at any time. To be part of this study, a consent form needs to be signed.

Duration of interaction

Interview: Approximately 1 hour, Self-Administered Questionnaire Approximately 20 Minutes.

Possible benefits from the study, to the participants and/or the community

The study will serve as a platform for participants to share their views and opinions on the trends in academic practice in reflection of their context of operation, Uganda or South Africa.

Assurance of confidentiality

Data acquired from the field will be treated in a way that protects the confidentiality and anonymity of the participants. Codes will be assigned to participants to prevent their identification in the research report or any other subsequent publications from this study. Records of the project will be stored on the main researcher's computer protected by a password. However, the data collected will be archived on flash disc and securely stored for five years as prescribed by the University of the Western Cape regulations.

Measures that will be taken in the event of an adverse event

If, at any stage a participant experience discomfort, please inform the researcher. The activity will be stopped immediately. If this request is made by a participant, all data collected up to that time will be deleted and disposed permanently. After completion of an interview, a participant can contact the researcher by email and request for the removal of his/her data from the research. Upon receiving such request, data collected from the participant will be removed and disposed. Participants should be assured that no adverse effect will result from such requests. Please refer to the independent complaints sheet attached.

Consent

Please sign the consent statement/form as proof that you agree to participate in this study.

If you have any questions afterwards about this research, feel free to contact me at 3774891myuwc.ac.za or my supervisor at planga@uwc.ac.za. If you have any questions, concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the Humanities and Social Sciences Ethics Committee on the details listed below.

HSSREC

Research Development

Tel: 021 959 4111

Email: research-ethics@uwc.ac.za

