A FRAMEWORK FOR INCENTIVES IN KNOWLEDGE CREATION AND SHARING BY ACADEMIC STAFF AT THE TECHNICAL UNIVERSITY OF KENYA

BY

JACKSON OMONDI OWITI

BSc. (IS) (TU-K)

AIU/02276P/2016

DISSERTATION IN PARTIAL FULFILMENT FOR THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF SCIENCE IN INFORMATION AND KNOWLEDGE MANAGEMENT

IN

SCHOOL OF INFORMATION AND COMMUNICATION STUDIES

OF

THE TECHNICAL UNIVERSITY OF KENYA

(DECEMBER 2018)
# TABLE OF CONTENTS

DECLARATION ........................................................................................................... i
DEDICATION ............................................................................................................ ii
ACKNOWLEDGEMENTS .......................................................................................... iii
LIST OF ABBREVIATIONS AND ACRONYMS ............................................................ viii
LIST OF TABLES ..................................................................................................... ix
DEFINITION OF OPERATIONAL DEFINITIONS ..................................................... xi
ABSTRACT .................................................................................................................. xii

## CHAPTER ONE .................................................................................. 13

1.0 Introduction ........................................................................................................ 13
1.2 Concepts of the study ......................................................................................... 14
1.2.1 Knowledge and Knowledge Management .................................................. 14
1.2.2 Knowledge incentives .................................................................................. 15
1.2.3 Knowledge creation and sharing .................................................................. 16
1.3 The Technical University of Kenya ................................................................. 17
1.4 Statement of the problem .................................................................................. 18
1.5 Aim of the study .............................................................................................. 19
1.5.1 Objectives .................................................................................................. 19
1.5.2 Research Questions ..................................................................................... 20
1.6 Justification of the study .................................................................................. 20
1.7 Significance of the study .................................................................................. 21
1.8 Scope and limitations of the study .................................................................. 21
1.9 Chapter Summary ............................................................................................ 22

## CHAPTER TWO ............................................................................. 23

LITERATURE REVIEW .............................................................................................
2.0 Introduction ........................................................................................................
2.1 Perceptions of Knowledge Creation and Sharing in universities ....................
2.2 Types of incentives in place for academic staff ..............................................
2.2.1 Promotion opportunities .......................................................................... 27
2.2.2 Financial allowances for successful supervision and publications ............
2.2.3 Recognition for successful supervision and publications ..............................
2.3 Extent to which incentives encourage knowledge creation and sharing .......... 28
2.4 Frameworks used to provide incentives for knowledge sharing and creation in universities............................................................... 30

2.5 Theoretical Framework ............................................................................................................................................................................. 32
2.5.1 Organisational knowledge conversion theory ................................................................. 33
Socialisation....................................................................................................................................................................................... 35
Externalisation.................................................................................................................................................................................... 35
Combination.................................................................................................................................................................................... 36
Internalisation................................................................................................................................................................................... 36
2.5.3 Social exchange theory......................................................................................................................................................... 37
2.5.4 Epistemological and Ontological Worldviews .................................................................................................................... 39

2.6 Literature gaps..................................................................................................................................................................................... 39
2.6 Chapter Summary.................................................................................................................................................................................. 40

CHAPTER THREE .................................................................................................................................................................................. 41
RESEARCH METHODOLOGY ..................................................................................................................................................................... 41
3.0 Introduction..................................................................................................................................................................................... 41
3.1 Research design .................................................................................................................................................................................. 41
3.1.1 Quantitative methods ................................................................................................................................................................. 42
3.1.2 Qualitative research................................................................................................................................................................. 43
3.2 Study site ........................................................................................................................................................................................................ 45
3.3 Study Population.................................................................................................................................................................................. 45
3.4 Sampling procedures and methods .................................................................................................................................................. 45
3.5 Sample size.................................................................................................................................................................................................. 47
3.6 Data Collection Tools........................................................................................................................................................................ 48
3.6.1 Questionnaires ........................................................................................................................................................................... 48
3.6.2 Interviews.................................................................................................................................................................................... 50
3.7 Pilot Study.................................................................................................................................................................................................. 52
3.7.1 Reliability and Validity............................................................................................................................................................... 52
3.7.2 Validity.................................................................................................................................................................................................. 52
3.7.3 Reliability.................................................................................................................................................................................................. 53
3.7.4 Document analysis................................................................................................................................................................. 53
3.8 Data Collection Procedures.................................................................
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.8.1 Data Analysis</td>
<td>54</td>
</tr>
<tr>
<td>3.8.2 Ethical Considerations</td>
<td>56</td>
</tr>
<tr>
<td>3.8.3 Permission to collect data</td>
<td>56</td>
</tr>
<tr>
<td>3.8.4 Confidentiality</td>
<td>56</td>
</tr>
<tr>
<td>3.9 Chapter Summary</td>
<td>56</td>
</tr>
<tr>
<td>CHAPTER FOUR</td>
<td>57</td>
</tr>
<tr>
<td>DISCUSSION OF FINDINGS</td>
<td>57</td>
</tr>
<tr>
<td>4.0 Introduction</td>
<td>57</td>
</tr>
<tr>
<td>4.1 Response Rate</td>
<td>57</td>
</tr>
<tr>
<td>4.1.1 Respondents’ profiles</td>
<td>58</td>
</tr>
<tr>
<td>4.1.2 Gender of respondents</td>
<td>58</td>
</tr>
<tr>
<td>4.1.3 Highest academic qualifications of respondents</td>
<td>59</td>
</tr>
<tr>
<td>4.2 Perception of Knowledge creation and sharing by academic staff at TU-K</td>
<td>59</td>
</tr>
<tr>
<td>4.2.1 TU-K valuing Knowledge as a resource</td>
<td>60</td>
</tr>
<tr>
<td>4.2.2 Frequency of knowledge creation and sharing</td>
<td>62</td>
</tr>
<tr>
<td>4.2.3 How TU-K academic staff create and share knowledge</td>
<td>63</td>
</tr>
<tr>
<td>4.3 Types of incentives for knowledge creation and sharing</td>
<td>64</td>
</tr>
<tr>
<td>4. 3.2 Preference of incentives at TU-K</td>
<td>65</td>
</tr>
<tr>
<td>4.4 Knowledge creation and sharing through provision of incentives</td>
<td>67</td>
</tr>
<tr>
<td>4.5 Academic staff perceptions on types of knowledge creation and sharing</td>
<td>74</td>
</tr>
<tr>
<td>Incentives at the TU-K</td>
<td>74</td>
</tr>
<tr>
<td>4.5.1 Financial incentive framework</td>
<td>74</td>
</tr>
<tr>
<td>4.5.2 Non-Financial incentive framework</td>
<td>75</td>
</tr>
<tr>
<td>4.6 Chapter summary</td>
<td>76</td>
</tr>
<tr>
<td>CHAPTER FIVE</td>
<td>77</td>
</tr>
<tr>
<td>DISCUSSION OF RESEARCH FINDINGS</td>
<td>77</td>
</tr>
<tr>
<td>5.0 Introduction</td>
<td>77</td>
</tr>
<tr>
<td>5.1 Respondents’ Profiles</td>
<td>77</td>
</tr>
<tr>
<td>5.2 Perceptions of knowledge creation and sharing at TU-K</td>
<td>78</td>
</tr>
</tbody>
</table>
5.2.1 How academic staff create and share knowledge at TU-K........................................ 79
5.3 Types of incentives for knowledge creation and sharing at TU-K............................... 80
5.4 Extent to which incentives encourage knowledge creation and sharing at TU-K........ 81
5.5 Framework of incentives for knowledge creation and sharing .................................... 82
5.6 Chapter summary........................................................................................................ 84
CHAPTER SIX ................................................................................................................. 85
SUMMARY OF MAJOR FINDINGS, CONCLUSION AND RECOMMENDATIONS ........ 85
6.0 Introduction.................................................................................................................. 85
6.1 Summary of the findings................................................................................................. 85
6.1.1 Perceptions of knowledge creation and sharing at TU-K....................................... 85
6.1.2 Types of incentives in place for academic staff at TU-K........................................ 86
6.1.3 Extent to which incentives encourage knowledge creation and sharing at TU-K..... 86
6.1.4 Incentive framework for knowledge creation and sharing that can be adopted at TU-K .................................................................................................................... 87
6.2 Conclusions.................................................................................................................. 87
6.3 Recommendations........................................................................................................ 88
Develop Knowledge creation and sharing strategy and link it to University strategic plan ........................................................................................................................................ 88
Type of incentives for knowledge creation and sharing.................................................. 88
Framework of incentive for knowledge creation and sharing........................................ 89
6.3.1 Recommendations for further research:............................................................ 91
6.4 Practical implication of the study ................................................................................ 92
6.5 Chapter summary........................................................................................................ 93
REFERENCES .................................................................................................................. 94
APPENDICES .................................................................................................................. 109
109 Appendix 1: Faculties, Schools and Department at Technical University of Kenya .... 109
Appendix 2: Dissertation Work plan .............................................................................. 110
Appendix 2: Dissertation Budget .................................................................................... 111
Appendix 3: Questionnaire ............................................................................................... 112
Appendix 4: Interview Schedule ..................................................................................... 118
Appendix 5: Letter of introduction from the department ............................................... 120
ABSTRACT

Incentives for knowledge creation and sharing demonstrate an institution’s commitment to knowledge creation and sharing. The existence or absence of incentives can encourage or discourage individuals from contributing towards knowledge creation and sharing. The research aimed to investigate the role of incentives in knowledge creation and sharing by the
academic staff at The Technical University of Kenya (TU-K). The secondary objectives of the study were to: investigate academic and administration staff perceptions of knowledge creation and sharing process at TU-K; establish the types of incentives in place for academic staff at TU-K; investigate the extent to which incentives encourage academic staff at TU-K to create and share knowledge and propose an incentives framework for knowledge creation and sharing by academic staff at TUK. The study was guided by both organisational knowledge conversion theory by Nonaka and Takeuchi’s (1995) and social exchange theory by Homan’s (1961). The study employed mixed method design (convergent parallel design) which involves collecting and analysing two independent aspects of quantitative and qualitative data at the same time or in a single phase. The study used stratified random sampling and purposive sampling to come up with a sample size of 314 drawn out of a target population of 627. Data was collected through semi-structured questionnaires and interviews, and analysed using MS excel and discourse analysis and presented in charts and tables. The findings indicated that TU-K did not have a formal incentive framework for their academic staff and there were notable gaps in ways the university encourages knowledge creation and sharing. A positive effort towards enhancing knowledge creation and sharing is with the establishment of directorate of innovation and knowledge exchange. The study concluded that knowledge creation and sharing is critical process that should be supported and valued by the University through provision of both financial and non-financial incentives. Recommendation include adoption and implementation of an integrated financial and non-financial incentives framework. Implications of this study is that it contributes to different areas within the field of information and knowledge management and combines the fields of incentives and knowledge creation and sharing by developing existing research on social exchange theory and the knowledge organisation theory.

Keywords: Knowledge creation, Knowledge sharing, Framework of incentives, Technical University of Kenya.

CHAPTER ONE

BACKGROUND OF THE STUDY

1.0 Introduction
Universities are considered vital sources of valuable resources in the knowledge economy. The main mandate of any university is to create new knowledge through research and share it for the development of individuals and society as a whole. They facilitate the creation and sharing of knowledge which is regarded as a driver of research innovation through the identification of new opportunities. This allows for the breeding of new ideas which are then used to solve societal problems. Universities are therefore considered vital sources of valuable resources in the knowledge economy. Universities endeavour to manage generated knowledge through sharing it for meaningful implementation in the current post-industrial society. Okemwa and Smith (2009) state that twenty-first Century has steered in an information and knowledge revolution that is of the same scale as the one observed during the industrial revolution in the 18th and 19th centuries.

Knowledge has been increasingly recognised as the most important economic resource surpassing the traditional resources of capital, labour and land. Institutions are seemingly dependent more on intellectual abilities that physical assets (Drucker, 1993).

According to (Kukko, 2013) universities are faced with numerous challenges in actualising knowledge sharing, although there is evidence that it leads to individuals and organisational growth. The most important knowledge is often contained in the minds of the academic staff in the form of tacit knowledge and thus universities face challenges in capturing and sharing this knowledge in more explicit forms.