INFLUENCE OF OUTSOURCING ADJUNCT FACULTY ON STUDENT'S SATISFACTION IN PUBLIC UNIVERSITIES IN KENYA

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Influence of Outsourcing Adjunct Faculty on Students' Satisfaction in Public Universities in Kenya

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DECLARATION

This thesis is my original work and has not been presented for a degree in any other University.

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This work was dedicated to my husband Patrick Kimani and my children Catherine Njoki, Malvin Kimani and Victor Ndungu who have been very helpful and patient with me during this very involving Ph.D period.

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LIST OF ABBREVIATIONS AND ACRONYMS

AAUP	-	American Association of University Professors
AMO	-	Ability-Motivation-Opportunity
ANOVA	-	Analysis of Variance
CATs	-	Continuous Assessment Tests
CHE	-	Commission for Higher Education
CoD	-	Chairman of Department
CUE	-	Commission for University Education
df	-	Degree of Freedom
DQA	-	Director Quality Assurance
HoD	-	Head of Department
ILO	-	International Labour Organization
KFE	-	Federation of Kenyan Employers
KIPPRA	-	Kenya Institute of Public Policy and Research
KMO	-	Kaiser-Meyer-Olkin
M. Phil	-	Masters of Philosophy
PhD	-	Doctor of Philosophy
SARUA	-	Southern African Regional Universities Association

SPSS	-	Statistics Package for Social Science
UIS	-	United Nations Educational Scientific Cultural Organizations Institute of Statistics.
UNESCO	-	United Nations Educational, Scientific and Cultural Organization.
USA	-	United States of America.
USIU	-	United State International University

DEFINITION OF TERMS

Adjunct faculty: are part-time instructors who usually have established careers outside of teaching and have adjunct contracts, which are on term-by-term basis, with no benefits (Bergmann, 2011).

Customer Satisfaction: a cognitive or affective reaction that emerges in response to a single or prolonged set of service encounter (Mcdougal & Levesque (2000).

Competency: refers to underlying characteristic of a person that result in effective or superior performance (Armstrong, 2014).

Compensation: is a systematic approach to providing monetary value to employees in exchange for work performance (Patnaik & Padhi, 2012).

Outsourcing: is the act of obtaining services from an outsider or a third party **(**Simchi-Levi, D. Kaminsky & Simchi-Levi, E., 2004).

Public University: means a university maintained or assisted out of public funds (Draft Universities Standards and Guidelines, 2013)

Role profile: also referred to as job description. It is an organized factual statement of the duties and responsibilities of a specific job. It tells of what is to be done and how it is done and why (Armstrong, 2014).

Satisfaction: is a state felt by a person who has experienced a performance or an outcome that fulfill their expectation (Keblawi, Johansson & Svensson, 2013).

Student's Satisfaction: is the student's perception and experiences during the college years (Keblawi, Johansson & Svensson, 2013).

Working condition: refers to working environment and all existing circumstances affecting labor in the work place, including job hours, physical aspects, legal rights and responsibility, organizational climate and workload (Ali, Abdiaziz & Abdiqan, 2013).

Work Ethic: is defined as rules or standards for governing the relations between people to benefit all concerned, with mutual respect for the needs and wants of all parties involved. It is a moral principle (Anastasia, 2016).

ABSTRACT

This study aimed at establishing the influence of outsourcing adjunct faculty on students' satisfaction in Public Universities in Kenya. Outsourcing is the current norm in many organizations today but more so in public universities. Public universities outsource many services but the one that stands out is outsourcing of adjunct faculty. Outsourcing of adjunct faculty was triggered by massive increase of students' population in public universities which consequently resulted in an acute shortage of lecturers. The study objectives were based on the following variables: competence, role profile, work ethics, working condition and students' satisfaction. The study was instrumental to outsourcing companies, human resource managers, Commission for University Education and all their stakeholders since it has put in the light the vice or otherwise of outsourcing. The study which targeted Students, Heads/chairpersons of Department and Directors Quality Assurance in public universities in Kenya employed cross-sectional survey research design. This study took place in public universities in Kenya. The target population for the study was 237,004 students, Heads of Departments and Director Quality Assurance in nine public universities in Kenya. A sample size of 258 respondents was drawn from the population using Calmorin and Calmorin formula. Simple random sampling was used to select the nine public universities and individual respondents. Stratified random sampling was used to sample the three categories of the respondents. Two hundred and fifty eight questionnaires with open and closed-ended questions were used to collect data. Validity and reliability of the research instruments was determined using Cronbach alpha, factor analysis and Kaiser-Meyer-Olkin. Data analysis and presentation started with data entry into SPSS version 21 then cleaned. The data was presented quantitatively. Any qualitative data was first converted into quantitative data for ease of analysis using homogeneity index formula. The results were presented using tables and graphs. The findings noted that there is a medium positive relationship between the three independent variables; competency, role profile and work ethics on students' satisfaction. It was noted that for every unit increase in competency, role profile and work ethics there is an increase in students' satisfaction. It was also noted that there is significant moderating effect between outsourced adjunct faculty and working conditions. The study observed that outsourced faculty have the required competencies to teach in institutions of higher learning however, they lack teaching skills and effective communication skills. It was also established that they do not carry out all the roles required of a lecturer, they behave unprofessionally at work and their working condition is not conducive. The study recommends that university and other organizations to do outsourcing because outsourced employees are competent however their roles in the organization should be stipulated very clearly. There should be a strict and adhered to policy in place to aid in recruitment and selection of the best candidate. They should be provided with conducive working environment. Recommended areas for further research include: to establish the factors that influence outsourcing of employees in other public sectors in Kenya.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Outsourcing became part of the business lexicon during the 1980s and refers to the delegation of internal operations to an external entity specializing in the management of that operation (Overby, 2007). It involves transfer of the management and/or day-to-day execution of an entire business function to an external service provider. The decision to outsource is often made in the interest of lowering firm costs. Outsourcing of adjunct faculty in universities started way back in 1990s and has received considerable attention in the recent past (Wei, 2011). For the past 35 years and counting, service delivery and students' satisfaction has been an intensively discussed subject especially in the area of knowledge transfer. It has raised the questions of whether universities have been on the exact mark in terms of academic achievements especially after spending enormous investments on the higher learning activities (Zakaria, Ahmad & Norzaidi, 2009).

Employers in Kenya and worldwide have been complaining over the years that many graduates they hire are deficient in basic skills such as writing, problem solving and critical thinking skills which the college leaders and faculties consistently rank among the most important goals of an undergraduate education (Bok, 2017). What matters in universities is the worth of a student's achievement, the amount and degree or perfection of learning according to the various levels of intellectual achievements, from recall to application and creative innovation (Sifuna & Sawamura, 2010). However, universities service delivery and students' satisfaction have been compromised and has become such a high profile issue in the 21st century due to the students' output and the challenges that face it worldwide (Mbirithi, 2013). Some of the aforementioned contemporary issues affecting students' satisfaction include, but not limited to inadequate academic staff, overreliance on outsourced adjunct faculties, inadequate financial support from the government, inadequate facilities, globalization, diversification, massification and

modern technology entering the classroom among many more (Dill, 2007; Wesangula, 2014; Yego, 2013).

The most affected area in Kenya is the massive shortage of academic staff (Mengo, 2011; Yego, 2013). Academic staffs are one of the most important criteria of a world class university because they are the persons who deliver the knowledge, skills and experience to the students (Zakaria *et al.*, 2009). According to Smith (2010) knowing a few lecturers well enhance students intellectual commitment, encourage them to think about their own values and is therefore a key factor in students motivation and academic achievement. There has been much debate that students are not receiving an equitable educational experience based on differences between part-time and full-time lecturers classroom performance. More than two-thirds of university instructors in class today are not full-time lecturers but adjunct faculties who are serving on year-to-year contracts (Bok, 2017). Many of them, if not all, are hired without undergoing the vetting commonly used in appointing full-time lecturers. Studies have observed that extensive use of such instructors may contribute to grade inflation (Bok, 2017).

The developed countries have universalized school education and massified higher education (Varghese, 2011). Lately, the status of these countries' university quality service delivery and customer satisfaction has been highly debated (Arum & Roska, 2011a). Among many factors that are said to influence the knowledge transfer are lecturers' compositions (Arum & Roska, 2011a). Over the last 30 years, there have been dramatic changes in the composition of the lecturers in the global world. Between 1970 and 2003, the number of adjunct faculty had increased by 422%, while full-time faculty increased by only 71% (Umbach, 2008). According to Schmidt (2010) adjunct faculty are probably as many if not more than full time lecturers and as the number and percentage of adjunct faculty increase, the academic integrity and quality goes down.

In the United States for instance, Arum and Roksa (2011b) indicated that the higher education system has in the recent years arguably been living off its reputation as being the best in the world. The quality of its graduates has been declining (Dill, 2007).

American Association of University Professors (AAUP, 2011) linked this to the increasing overreliance on adjunct faculty. The largest group of employees at virtually any community college in the United States is adjunct faculty (Smith, 2010). According to a survey by the United States Department of Education, out of 1.8 million lecturers investigated, more than 1.3 million (75.5%) were employed in contingent positions either as adjunct faculty, full-time non-tenure-track faculty members, or graduate assistants (Coalition on the Academic Workforce, 2012). Smith (2010) also noted that by 2003, 33% of lecturers in US were full-time lecturers and 67% were adjunct faculty. More so, according to AAUP (2011); AFT (2010); Schuster and Finkelstein, (2006), the new majority $\frac{2}{3}$ of lecturers in America are adjunct faculty.

In India, higher education sector is one of the largest in the world catering to 25 million students (Stephanie, 2013; Bali, 2014). According to Stephanie (2013) India had 700 diploma and degree institutions a decade ago, but by 2013 there were 45,000. To Stephanie (2013) this increase has affected the quality of service delivery and students' satisfaction. Varma (2013) attributed this to the failure to appoint lecturers on regular posts, instead, the universities hire non-regular or contractual lecturers at a meager pay, many of whom are not fully qualified (Varma, 2013). Based on the survey in USA and India, there is an indication that higher education in developed countries has been compromised.

In Africa, university education is recognized as a key force for modernization and development (Bunoti, 2009). However, quality is an issue that cannot be avoided in education at present and what institutions do to ascertain quality (Ginette, Chute, Dib, Dookhony, Klein, Loyacano-Perl, Randazzo & Reilly, 2008).

Based on the study carried out by the International Association for the Evaluation of Educational Achievement, the quality of university education in sub-Saharan Africa is well below world standards (Sifuna & Sawamura, 2010). Qualified human capital remains scarce compared to the continent's development needs (Materu, 2007). This is

associated with the diminishing financial resources, stagnation and deterioration of physical facilities, declining salaries and staffing crises that goes hand in hand with poor quality service delivery, learning and research, low morale and staff motivation and political interference (Bunoti, 2009; Odera-Kwach, 2011; Taal, 2011; Yizengaw, 2008). According to Yego (2013), World Bank estimated 23,000 qualified academic staff are emigrating from Africa each year in search of better working condition. This problem is accelerated by poor compensation, lecturers teaching over-loads, low student-staff ratio and lack of funds for research activities (World Bank, 2013).

In Nigeria, concern about the quality of service in higher education is on the rise (Archibong, Oshiomu & Bassey, 2010; Banji, 2011). There are persistent complaints by the employers that their graduates are poorly prepared for the workplace (Babalola, 2007; Banji, 2011; Edukugho, 2013). According to Idogho (2011); Asiyai (2015), this is associated with the quality of lecturers employed to teach, poor remuneration of higher education lecturers, proliferation of universities and massification. Omopupa and Abdulraheem (2013) emphasized that lecturer's selection procedures and attitude of individuals entering the institutions affects the quality of Nigeria University education.

The same complaint has been heard in East African Countries (Kasenene, 2010). Bunoti (2009) associated this to the inadequate number of teaching staffs which has been brought about by increased number of students and inadequate funds to run the institutions and employ staffs. It is an acceptable fact that adjunct faculty are commonly contracted in teaching various public and private universities as a cost cutting strategy (Lumasia & Kiprono, 2015). However, the most important academic concern is the perception that adjunct faculty threaten the quality of academic programs in terms of course content, advising, faculty-students' interaction and collegiality within academic departments (Jaeger & Eagan, 2010). Looking at the aforementioned issues in the developing countries, students' satisfaction has been compromised.

University education in Kenya has undergone remarkable transformation in the recent past. Key among them is the enactment of universities Act No 42 of 2012 which has ushered in raft of changes in the management and operations of higher education in the country. The Act which came into effect on 14th December 2012, established the Commission for University Education (CUE) as the successor to the Commission for Higher Education (CHE) effectively placing both public and private universities under the watch of the CUE in the provision of quality and relevant university education in the country (CUE, 2013). According to CUE Newsletter of March-June 2013, there are a total of 22 public universities in Kenya, nine (9) public university constituent colleges, 17 chartered private universities, and five (5) private university constituent colleges, nine (9) universities with Letters of Interim Authority and two (2) registered private universities. This brings to 64 the total complement of public and private universities in the country (CUE, 2013). Having met the stipulated requirements of the Commission, 13 public university and 2 private universities were awarded the charter on 1st March 2013. Kenya has the largest university education system in East Africa with 64 universities (CUE, 2013) as compared to Uganda 47 and Tanzania 43.

Universities in Kenya are accountable for offering quality service in teaching, research and community service (Owour, 2012). They also hold the key to the realization of Vision 2030 by providing the manpower with the requisite skills and Knowledge (Ng'ethe, Iravo & Namusonge, 2012). Its lecturers are not only required to teach the students on how to read and write but also how to tackle problems they may encounter in their day to day endeavors (Kaburu & Embeywa, 2014). However, a Delphi Survey conducted in 2010 indicated that quality of service delivered is a contradiction in the Kenyan Universities (Odera-Kwach, 2011). University education is laden by many challenges henceforth affecting the customer satisfaction (Kaburu & Embeywa, 2014; Wanjira 2009). Some of these challenges include, but not limited to: commercialization of education, low staff morale, expansion, massification and brain-drain leading to staff shortage hence overreliance on adjunct faculty (Yego, 2013; Wesangula, 2014).

Expansion of higher education in Kenya has occurred in the period of diminishing budgetary resources caused by difficult macro-economic conditions (Boit & Kipkoech, 2012). These conditions do not seem to be getting any better. These scenarios of constraint resource environment combined with rapid increase in students' enrolment have had a number of adverse effects on quality of service offered and customer satisfaction. It has led to shortage of academic staff, falling academic standards and many more (Boit & Kipkoech, 2012). Currently, the average lecturer to student ratio in some public universities stands at 1:500 (Wesangula, 2015; Boit & Kipkoech, 2012). In some instances, the ratio can go up to 1:900 students (Wesangula, 2015). The United Nations Educational, Scientific and Cultural Agency (UNESCO) recommend a ratio of 1:45 (Wesangula, 2015). This problem started in 1998 when the government supplementary funding was halted and universities introduced privately sponsored students progammes (PSSP). Double intakes have also played a major role in increase of students' population. These have consequently led to shortage of lecturers leading to outsourcing of adjunct faculty (Gudo, Olel & Oanda, 2011).

A study by Gudo, *et al.* (2011) indicated that there was shortage of full-time lecturers in Baraton University, Masinde Muliro University, University of Nairobi and USIU which was replaced by outsourcing adjunct faculty. In USIU for instance, there were 349 adjunct faculty compared to only 89 full time lecturers as at 2014. Another study by Okhato and Wanyoike (2015) on CoD's in public universities in Nakuru County as well noted that 88.9% of lecturers were adjunct faculty. All these findings were summed up by Kipkebut (2010) who established that the adjunct fraternity has grown steadily over the years and has surpassed the numbers of full-time lecturers in higher education in Kenya.

The fact is that outsourced adjunct faculties are much more than full time lecturers in institutions of higher learning (Lumasia & Kiprono, 2015). Though CUE (2010) recommended the ratio of full-time to part-time academic staff to be 2:1, it seems that that recommendation has not been met. This has in turn raised concern and fears among

the stakeholders as to the service delivery of the outsourced faculty owing to an implied notion that outsourced faculty has part-time commitment to the institution and students.

1.2 Statement of the Problem

Kenya has the largest university education system in East Africa with 31 public and 33 private universities (CUE, 2013). Its' students' population has increased tremendously over the years. The rise has been dramatic in public universities compared to their private sector counterparts (Ngome, 2013). Enrolment increased steadily from 3,443 students in 1970 to about 20,000 students in 1989/1999 (Ministry of Education, 2012). The number skyrocketed with 1990 intake of 21,450 students, increasing to a total of 41,000 students (Mutula, 2002) reaching 67,558 students in 2003/2004. The number increased further to 159,752 students by 2009/2010 (Nganga, 2014), then to 443,783 students in 2014/2015. By 2016/2017 academic year Public Universities in Kenya had about 461,818 students (Oduor, 2016). This tremendous increase in students' population is attributed to free primary and secondary education; multiplication of institutions of higher learning through establishment of subsidiary campuses and constituent colleges and the government's aim to reduce delay in admission of qualified students.

This massive increase of students' population has in consequent resulted in massive shortage of lecturers (Mengo, 2011; Yego, 2013; Wanzala, 2016). According to a report by CUE, there is 16,318 academic staff in both public and private universities offering 3,408 programs to the surging student population (Oduor, 2016). The recommended lecturer-student ratio should be 1:50 for theoretical-based course and 1:20 for practical-based courses (CUE, 2013) however; the shortage of academic staff has rendered it impossible to meet these thresholds. To address this shortage, universities have decided to outsource (Kaburu & Embeywa, 2014; Ngome, 2007).

As the presence of outsourced adjunct faculty continues to soar, similarly issues of effectiveness, integrity and quality follows (Okhato & Wanyoike, 2015). The Cabinet Secretary for Education Kenya announced that adjunct faculty would be phased-out at

the country's universities (Wanzala, 2016). This is owing to an implied notion that adjunct faculty are giving substandard services to students. The faculty was also said to not being fully qualified and committed to the profession hence influencing students' satisfaction negatively. Although it has been noted that students' achievement is more heavily influenced by the quality of the faculty (Choi, Zaitoni & Tan, 2014; Zakaria, *et al.*, 2009), it is necessary to establish whether outsourced adjunct faculty's competency, role profile or work ethics influence students' satisfaction in Public Universities in Kenya. It was in these regards that this study was undertaken, to establish the influence of outsourcing adjunct faculty on students' satisfaction in public universities in Kenya.

1.3 Objectives of the Study

1.3.1 General Objective

To establish the influence of outsourcing adjunct faculty on students' satisfaction in public universities in Kenya

1.3.2 Specific Objectives

The study sought:-

1. To determine the influence of competence of outsourced adjunct faculty on students' satisfaction in Public Universities in Kenya.
2. To examine the influence of role profile of outsourced adjunct faculty on students' satisfaction in Public Universities in Kenya.
3. To examine the influence of work ethics of outsourced adjunct faculty on students' satisfaction in Public Universities in Kenya.
4. To determine the moderating effect of working conditions on the relationship between outsourced adjunct faculty and students' satisfaction in Public Universities in Kenya.

1.4 Research Hypotheses

This study sought to test the following hypotheses:-

H_{01}: Competence of outsourced adjunct faculty has no significant influence on students' satisfaction in Public Universities in Kenya.

H_{02}: Work profile of outsourced adjunct faculty has no significant influence on students' satisfaction in Public Universities in Kenya.

H_{03}: Work ethics of outsourced adjunct faculty has no significant influence on students' satisfaction in Public Universities in Kenya.

H_{04}: Working conditions has no significant moderating effect on the relationship between outsourced adjunct faculty and students' satisfaction in Public Universities in Kenya.

1.5 Significance of the study

Outsourced adjunct faculty clearly serves a valuable purpose in higher education; however, their increased use raises concerns to all stakeholders within and without the organizations. They wonder whether the outsourced faculty gets the work done more efficiently and effectively as is the expectation of the outsourcing organization. To establish this, the study explored on the competencies of this outsourced faculty, their role profile in the universities, their commitment level, whether their work ethics and working condition influence students' satisfaction. The study was instrumental to organization that practice outsourcing, human resource managers, Commission for University Education and all the other stakeholders since the study has put in the limelight the vices or otherwise of outsourcing. The study has also brought to the front the challenges or otherwise that outsourced faculty face in their day-to-day endeavors. The Heads of Departments, Director Quality Assurance and students' view on this

faculty was credible enough to influence the stakeholders' decision on the performance of outsourced faculty.

1.6 Scope of the Study

The study on the influence of outsourcing adjunct faculty on students' satisfaction was carried out in Public Universities in Kenya. It targeted thirty one (31) public universities in Kenya but nine of them were sampled. The sampled universities included: University of Nairobi, Moi University, Kenyatta University, Dedan Kimathi University of Science and Technology, Karatina University, Technical University of Kenya (TUK), Cooperative University of Kenya, Muranga University and Garissa University.

1.7 Limitations of the Study

The limitations encountered during the study included getting a representative sample in the respective university. However, this was countered by using proportionate sampling technique based on the total population of the respondents. That is, 30% of the respondents were the HoDs and 70% of the respondents were the students. This ensured that the sample size was proportional to the total population in the given institution.

The fear of confidentiality was delimited by seeking permission from the relevant authority before administering the questionnaires to the respondents. The respondents requested for more time to fill in the questionnaires; this was countered by hiring research assistants in each university to hasten the process.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter covers the theoretical framework, conceptual framework and empirical reviews of the study. Under the theoretical framework, Ability-motivation-opportunity theory, deontological moral theory, Hertzberg's two factor theory and social exchange theory were discussed. Conceptual framework was explained diagrammatically and empirical review on competences, role profile, work ethics, working condition and students' satisfaction were discussed.

2.2 Theoretical Framework

2.2.1 Ability-Motivation-Opportunity (AMO) Theory

To understand the competency, working condition, role profile and students' satisfaction Ability-Motivation-Opportunity theory was employed. Ability-Motivation-Opportunity (AMO) theory was proponed by Olander and Thogersen (1995) and it indicates that what employees know and are capable of doing (competency) is of paramount importance. The theory indicates that employees should be motivated enough (working condition) to utilize their capabilities in specific role and responsibilities (role profile). The theory suggest that the practices that enhance the firms' employees via increased human capabilities translate into performance outcome, such as higher productivity, reduced waste, higher quality service, customer satisfaction and profit (students' satisfaction). According to Ability Motivation Opportunity theory, Human Resource Management works through increasing employees' ability through attracting and developing high performing employees; enhancing employees' motivation and commitment through practices such as contingent rewards and effective performance management (PM); and providing employees with opportunity to engage in knowledge-

sharing and problem solving activities via employee involvement (EI) programs (Hughes, 2007).

This theory supports competency, working conditions, role profile and students satisfaction variables under study. The theory holds that what employees know and are capable of doing (competence) is of paramount importance. It also holds that employees should be motivated enough (working condition) to be able to utilize their capabilities in specific roles and responsibilities (role profile). The motivation given to them in terms of conducive working environment, proper and prompt rewards and involvement in decision making helps them to be committed (work ethic) to carry out their roles effectively and efficiently. This consequently results in performance hence students' satisfaction.

2.2.2 Deontological Moral Theory

The first philosopher to define deontological principles was Immanuel Kant. Kant held that nothings is good without qualification except a good will, and a good will is one that wills to act in accord with the moral law and out of respect for that law rather than out of natural inclinations. The theory states that we are morally obliged to act in accordance with a certain set of principles and rules regardless of outcome (Kant, 1964). Deontology is an ethical theory that uses rules to distinguish right from wrong. Kant believed that ethical actions follow universal moral laws such as 'do not lie, do not steal, and do not cheat'. This theory requires that people follow the rules and do their duties (Kant, 1999). This theory tends to fit well with our natural intuition about what is or is not ethical.

Deontological theory holds that some acts are always wrong, even if the act leads to an admirable outcome. Actions in deontology are always judged independently of their outcome. An act can be morally bad but may unintentionally lead to a favourable outcome. Kant's moral theory is based on the view that human beings have a unique capacity for rationality. No other animal possesses such a propensity for reasoned thought and actions, and it is exactly this ability that requires human beings to act in

accordance with and for the sake of moral law or duty. Kant believes human inclinations, emotions and consequences should play no role in moral action; therefore, the motivation behind an action must be based on obligation and well thought out before the action takes place (Kant, 1999). Morality should, in theory, provide people with a framework of rational rules that guide and prevent certain actions and are independent of personal intentions and desires. According to Kant, the moral worth of an action is determined by the human will, which is the only thing in the world that can be considered good without qualification. Good will is exercised by acting according to moral duty/law. Moral law consists of a set of maxims, which are categorical in nature- we are bound by duty to act in accordance with categorical imperatives.

This theory was used to support work ethics on students' satisfaction. Outsourced adjunct faculties and any other outsourced staff are bound by law to behave morally upright even if the act leads to an undesirable outcome. They should understand that good will is exercised by acting according to moral duty/law. They should aspire to fulfill their duties dutifully and be ware that their actions will be judged independently of their outcome.

2.2.3 Hertzberg's Two-Factor Theory

The two-factor theory of motivation (otherwise known as the dual-factor theory or motivation hygiene theory) was developed by psychologist Fredrick Herzberg in the 1950s. The theory sampled 200 respondents who were asked about their positive and negative feelings about work. Herzberg found out two factors that influence employee motivation and satisfaction; motivator factors and hygiene factors. Motivator factors are factors that lead to satisfaction and motivate employees to work harder (Herzberg, 1974). Hygiene factors are factors that lead to dissatisfaction and a lack of motivation if they are absent. While motivator factors increased employee satisfaction and motivation, the absence of these factors did not necessarily cause dissatisfaction. Likewise, the presence of hygiene factors did not appear to increase satisfaction and motivation but their absence caused an increase in dissatisfaction.

The motivating factors which generate satisfaction and motivation are factors relating to the positive feelings about the job and exist within the job itself and relate to job content. They include personal growth and achievements, nature of work, responsibility and a sense of achievement (Armstrong, 2012). The hygiene factors are related to the conditions under which job is performed. They include salary, job security, working conditions, level and quality of supervision, interpersonal relations and company policies. They relate to the job context. They are identified as job dissatisfies and are associated with the negative feelings of the employees. They do not provide any growth in productivity of the employee but prevent satisfaction.

In this study, Herzberg two-factor theory relate to working condition of outsourced adjunct faculty. The working condition adjunct faculties are exposed to can increase satisfaction or cause dissatisfaction to them hence influencing their service delivery. To help motivate the employees, ensure they feel appreciated and supported. To prevent dissatisfaction, the management should ensure that the employees feel that they are treated right by offering them the best possible working conditions and fair pay.

2.2.4 Social Exchange Theory

To understand the outsourced employees' work ethics, working condition and satisfaction, social exchange theory was employed. Social exchange is defined as voluntary actions of individuals that are motivated by the returns they are expected to bring and typically do in fact from others (Blau, 1964). Social exchange theory proposes that social behavior is the result of an exchange process (Blau, 1964). The need to reciprocate the benefits received acts to reinforce the characteristics of the exchange. Increasingly, organizations are seeking to develop committed workers in an effort to drive down employee absenteeism while improving individual performance and job-related attitude (Morrris, Lydka & Fenton, 1993). There is growing awareness that employees' positive work attitudes and discretionary behaviors are important factors affecting organization performance (Padsakoff & Mackenzie, 1997). Gaining a better understanding of factors that can motivate and alleviate such work attitudes and

behaviors is solution to success. According to Julian and Fiona (2005), positive worker attitude depends on employees' perception of how committed the employing organization is to them. For instance, positive optional activities performed by the organization that benefit the employee would be taken as evidence that the organization cares for them and their well-being.

On the basis where organizations give evidence of good will towards its employees, it endears obligations on the part of employees to reciprocate the good deeds which go beyond contractual agreements behaviors (Julian & Fiona, 2005). Positive social exchange can result in mutual benefits to employing organization and the workforce. The employees always want to know or feel that their employers recognize their achievements and participation in the workplace then they reciprocate (Blau, 1964). Thus, individuals will exhibit greater commitment to an organization when they feel supported and rewarded (Padsakoff & Mackenzie, 1997). This commitment, in turn, manifests itself in increased performance and other work behaviors that benefit the organization (Julian & Fiona, 2005). Employee satisfaction is essential to the success of any organization (Gregory, 2011). Several internal and external factors can influence employee job satisfaction and engagement (Chughati & Perveen, 2013). Lack of job satisfaction can lead to labour turnover, absenteeism, poor performance, low productivity among others (Chughati & Perveen, 2013; Gregory, 2011).

This theory supports the study in that when outsourced employees are supported by the engaging institutions, they will reciprocate by being committed, having good attitude towards their work hence quality of service delivery. Outsourced adjunct faculty may be more committed towards their work if they feel that their engaging organization is paying them well and promptly and giving them conducive working environment.

2.3 Conceptual Framework

Kamau, Gakure and Waititu (2013) defines conceptual framework as a visual or written product, one that explains, either graphically or in narrative form, the main things to be

studied, the key factors, concepts or variables and presumed relationships among them. It is a tool a researcher uses to guide their inquiry. It is used to structure the research or a sort of a map in data collection and analysis. In this study, independent variable was adjunct faculty operationalized as competence, role profile and work ethics. The moderating variable was working condition and the dependent variable was students' satisfaction. The values of independent variables can be manipulated to study the effects on another variable, such as, dependent variable. It leads to more convincing generalizations. Diagrammatically the conceptual framework is explained in Figure 2.1.

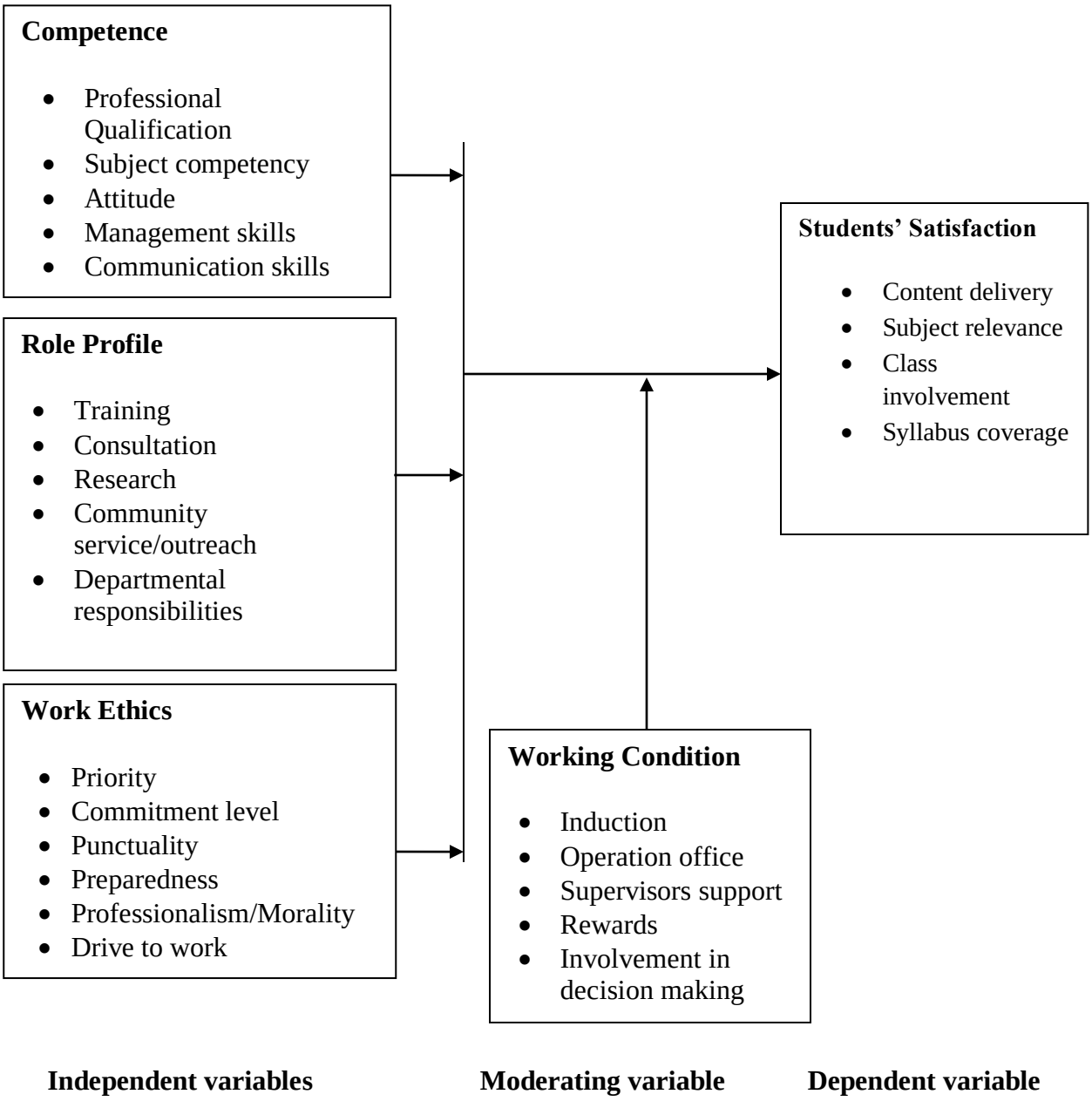

Figure 2.1: Conceptual framework

2.4 Review of Literature on Variables

Empirical review is a way of gaining knowledge by analyzing the previously conducted researches. This section gave the secondary information on the dependent, independent and moderating variables as indicated in the conceptual framework.

2.4.1 Competences

Teaching and learning are two dimensions of the academic world and both depend on lecturer's capabilities (Choi *et al.*, 2014). Choi *et al.* (2014) observed further that, upon the deterioration in the academic accomplishments, attitude and values of students, one curiously wonder if the high failure rate and the poor quality of the students is not a reflection of the teaching quality or inadequacy of lecturer's competencies. In other words, the incompetence of lecturers in classroom interaction with the students could be responsible for the observed poor performance of students in classroom (Choi *et al*., 2014). Students achievement will likely be realized when students receive instructions from lecturers with good teaching competencies (Nadeem, Musarrat, Abdul, Saira, Khansa & Akhtar, 2011). These competencies include but not limited to subject knowledge, skills and attitude. Competencies such as knowledge on subject, clarity of presentation, interaction with students, teaching creativity, clarifying learning outcomes, class activity and lecture notes are significantly related to student's satisfaction positively. Metzler and Woessmann (2012) recommended that lecturers to develop strong teaching competencies in order to deliver quality service. According to Nigeria National Universities Commission (2012), the overall competence of the teaching staff may be judged by the level of academic/profession training, their teaching experience and professional work-research and publications.

Emphasizing the same is Gordon (2001), who noted that lecturer's efficacy is sometimes considered to be an indicator or prediction of service delivery effectiveness. Another research showed that efficacious lecturers are capable of bringing about change in students behavior, motivation and customer satisfaction. Metzler and Woessmann (2013)

also noted that lecturer's subject knowledge and skills determine quality service delivery because, without subject knowledge, the lecturer is unable to comprehend the students with relevant knowledge and skills required for that particular subject. Do adjunct lecturers have these skills and subject knowledge? According to a study by Wallin (2009) lack of competency and experience are defining characteristics of adjunct faculty. These lecturers are said to be slightly less experienced and slightly less educated than their full-time counterpart (Wallin, 2004). Emphasizing the same is Kilonzo (2011) who observed that in Kenya, most lecturers recruited are master's degree holders with no research publications. These observations do not fit (UOIT, 2011) study which recommended that adjunct faculty should meet the equivalent standards to those that exist for full-time positions at the university and will be actively engaged in research.

In a study by Uddin and Hossain (2012) lecturers' academic qualification is the most important of all the factors affecting students' satisfaction. A survey done in American Universities by the Coalition on the Academic Workforce (2012) indicated that 94% of adjunct lecturers held some level of graduate degree: 40.2% reported a master's degree as their highest level of educational attainment, 30.4% a doctorate, 16.7% a professional degree or other terminal degree, and 7.0% completed all work but not dissertation toward a doctoral degree. Another survey in Kenya by Commission for University Education in private and public universities showed that most institutions have 70% of the academic staff have a master's degree and below (CUE, 2010). Based on these studies, there is a possibility that such lecturers have no effect on students' learning or negatively impact students' outcome (Vegas & De-Laat, 2003). Most people entering academia in the UK at the level of lecturer or above are now expected to have a doctoral level qualification. This shows that you can both carry out research professionally and communicate your findings in an academic setting. In United State, one requires a PhD as a minimum requirement, with teaching experience and publications an increasing prerequisite (Moon, 2010).

A report by Community College Survey of student Engagement (2009) stated that there is need for professional development for adjunct faculty. Professional training and

development is needed while recruiting adjunct faculty because learning is the central concern of teachers (Macleod & Golby, 2003). They need to be professionally equipped with a well-informed understanding of how learning takes place. The suitable professional training for lecturers should be pedagogical skills. Pedagogical skill is a deep knowledge about the processes and practices or methods of teaching and learning (Koehler, 2011). A teacher with deep pedagogical knowledge understands how students construct knowledge and acquires skills, develop habits of mind and positive dispositions towards learning. Another aim of this training is to shift from teacher-centered approach of teaching towards student-centered approach to teaching (Postareff, Lindblom & Nevgi, 2007). A study by Suarman (2015) found that lecturers who did not have professional education background were lacking in their method of teaching and did not really emphasis on their teaching objectives when conducting their teaching and learning session. This proves that it is necessary for these university lecturers to continuously attend training or courses for the purpose of providing effective teaching (Suarman, 2015). A study by Mageto (2010) and Olotunji (2013) noted that universities do not recruit lectures that have pedagogical skills neither do they equip their adjunct lecturers in performing teaching tasks. Emphasizing the same is Sawyer, Kata, & Armstrong (2014), who noted that very few institutions provide part-time lecturers with professional development support an indicator that institutions are not investing in maintaining and improving the quality of service delivery.

The amount students learn in a year is partially a result of their teachers' experience and knowledge (Huang & Moon, 2009). Although adjunct lecturers bring a rich level of experience to universities, they usually have difficulties with the mechanics of teaching. According to Choi *et al.* (2014), it takes a minimum of about three years to become proficient and deliver quality service. CUE-K (2014) also recommends 3 years working experience. On-the-job experience provides teachers with practical opportunities in which to build their expertise in teaching and classroom management. At the same time, average years of teaching experience are an indication of teachers' maturity and their long-term commitment to education. A number of studies findings confirm that on

average, brand new teachers are less effective than those with some experience under their belts (Clotfelter, Ladd & Vigdor, 2007; Ladd, 2008; Sass, 2007). A study by Olatuji (2013) revealed that, at the point of entry into university workforce, 40% of the lecturers in the sampled universities do not have any teaching experience. Meixner, Kruck and Madden (2010) emphasized this by noting that, some part-time lecturers are hired at the 11th hour. In their study, Meixner *et al.* (2010) observed that approximately 22% of surveyed part-time lecturers' had between zero and one year of experience. Another study by Kyule, Kangu, Wambua, Mutinda and Kamau (2014) noted that 53% of the lecturers had very little experience. Based on these findings, there is an indication that one does not have any reasonable ground to guarantee that these lecturers are able to guarantee students' satisfaction.

Teachers should be qualified to and specialist in the courses that they teach (Awe 2009). This will make them effective in terms of service delivery when they teach courses that they are trained to teach (Mayer *et al.*, 2000). But according to Makokha (2015), majority of the lecturers teach subjects other than those they graduated in an effort to encourage them to read widely. Another study by Adedoyin (2011) observed that majority of the lecturers lack substantial subject matter, the knowledge of what to teach and how to teach the subject matter effectively. Lecturers with strong subject matter knowledge give details in their lesson, link the topics, ask questions and stray from the textbook.

Research-whether library or field is of paramount importance for quality service delivery (Kilonzo, 2011). In Kenya according to CUE (2014) lecturer should have a minimum of 24 publication points, 16 from a refereed journal paper. Classroom management skills is a key factor to students satisfaction reason being, it creates a classroom environment that leads to higher order thinking and learning (Choy, Wong, Lim & Chong, 2014). According to Choi *et al.* (2014), competent lecturer would create classroom and climate which is conducive for students learning. According to Barbetta, Norona and Bicard (2006), a chaotic classroom that lacks boundaries can prevent students from being engaged in the learning activity and process. Lecturers should be able to manage the

activities and the time frame for their lessons (Suarman, 2015). Organized classroom increases engagement and reduces distractions leading to quality learning.

Communication skills also matters in quality service and students satisfaction. According to Choi *et al*. (2014), clarity of presentation, teaching creativity and clarifying learning outcomes are significantly related to student's satisfaction positively. According to Suarman (2015) the content should be delivered in an appropriate method that will make it easy for students to comprehend. It should be delivered in a clear voice projection as well as correct, clear, precise and fluent language (Suarman, 2015). The lesson should be well planned which means the content should be delivered in a smart manner and appropriate pace. The writing should also be neat and appropriate so as to be seen clearly and legible by all.

2.4.2 Role Profile

What is the role of an adjunct faculty in an institution of higher learning? Is the role of an adjunct faculty supposed to be the same as that of a permanent lecturer? Mageto (2010) noted that it is difficult to situate any data that details the role of adjunct faculty in institutions of higher learning. According to Mageto, this confirms the fact that most institutions have not regarded adjunct faculty with any importance. Based on the fact that the roles of adjunct faculties are not specified in many institutions of higher learning, then it is sensible to conclude that adjunct faculties are dons in general and are supposed to fulfill all the roles required of any other don. The question that follows next is, what is the role profile of a lecturer? According to Porter and Umbach (2000) faculties' workload covers multi factors besides teaching credit hours: committee involvement, research time, community service, office hours, student evaluation, and course preparation. Academic workload is therefore, the total professional effort, which comprises the time and vigor devoted to class management, evaluating student work, curriculum and program deliberation and research activities.

Academic role Howard (2005) added is a mix of three basic responsibilities namely; teaching, research and community outreach (service). Teaching consists more than what takes place during the few hours a week in the classroom. It includes class design, preparation, grading and meeting with students. Research is not a process but a product which is publication (Howard, 2002). These publications become teaching tools and extend an institutions mission beyond the campus. Finally is service which includes two areas namely; institutional and professional. Institutional services are administrative duties, committee work and students activities. Professional services refers to work done to support one's academic discipline and involves activities such as serving in communities and boards of professional organizations, chairing sessions at national or international meetings among other. However, Report by Community College Survey of Student Engagement (2009) found that more than 40% of adjunct faculty spent zero hours per week advising students, despite the students needs for advising and lecturer-student interaction. Lumasia and Kiprono (2015) also found out that 100% of adjunct faculty meets their students only once a week; probably when there is a class and no other time to discuss anything outside the classroom until the following week. Kyule *et al*. (2014) as well noted that 75% of the adjunct faculties are rarely available for consultation. They have limited contact with students outside class and may or may not hold office hours (Pankin & Weiss, 2011). Stressing the same is Brown (2014) who pointed out that adjunct faculty do not spend adequate time in class, in preparation and in lecturer's lounge. Spending more time with students increases the level of inquiry and intellectual interaction between students and lecturers. Such interactions help in building knowledge on the content taught in class and its applicability outside the classroom since some pertinent matters arising from the content can be clarified by the lecturer outside the class (Gudo *et al.*, 2011; Lumasia & Kiprono, 2015). However, what usually go wrong is the fact that the demand for their services means that they can teach in several campuses in one day which discourages additional hours spend with students outside the class (House Committee on Education and the Workforce democratic Staff, 2014; Community College Survey of student Engagement, 2009; American Association of State Colleges and University Professors, 2003).

Do they carry out research as is required of a lecturer? Research-whether library or field is of paramount importance for quality service delivery (Kilonzo, 2015). Good teaching, in many subject areas, is only good to the extent that it is informed by the latest research (Report to the European commission, 2013). A capable lecturer should be able to teach and carry out research (Uche, 2012; Zakaria & Yusoff, 2011). Research shows that efficacious lecturers are capable of bringing about change in students behavior, motivation and learning outcome (Choi *et al.,* 2014). However, according to Mageto (2010) part-time teaching has affected part-time lecturers' research. It has taken much of their time for preparation and researching for the courses that they teach (Kilonzo, 2015). They no longer have time for self development in studies and in research (Report to the European commission, 2013).

2.4.3 Work Ethics

Ethic has to do with rules of behavior based on ideas about what is morally good or bad; what is considered right or wrong. Every institution has rules and regulations governing its employees, however, personnel policies governing adjunct faculties are as diverse as the institutions employing them. Other institutions do not have any policy governing the conduct of adjunct faculties. This in consequent may affect students' satisfaction. A study by Bunoti (2009) noted that unprofessional behaviors are common among faculties and other staff resulting in rudeness and use of threatening abuse of students. These unethical behaviours could be due to the fact that adjunct faculties are hired in haste (Rhoades, 2012). For instance, these faculties are given a call in the morning to start teaching in the afternoon, essentially to fill in an emergency slot (Bergmann, 2011). This means that no real peer review practices that would involve quality considerations in hiring are considered.

Feldman and Turnley (2001) also noted that adjunct faculties are employees from other institutions and thus may treat their part-time teaching as of secondary importance. In fact, these faculties are not loyal to one institution and they know little or nothing at all about an individual university's missions, policies, procedures and programs. A study by

Okhato and Wanyoike (2015) noted that employees on temporary contracts are more likely to be unable to apply the full range of their skills and work in positions that do not fully utilize their qualifications and experience.

Other Study by House Committee on Education and the Workforce Democratic Staff (2014) noted that many adjunct faculties have daunting workloads because they are paid based on courses taught. To make ends meet, they juggle multiple courses, often at multiple departments and schools and sometimes with additional non-academic jobs squeezed in between (Brown, 2014; The Coalition of Academic Workforce, 2012). This leaves them with unbearable fatigue and worn out barely in a position to up-date their lecture notes (Mageto, 2010; Theuri, 2013). Their aim is to make as much money as they can by teaching extra courses in different campuses because the country and university management do not regulate the workload per lecturer (Kilonzo (2015).

A survey by Commission for university Education-Kenya confirmed that adjunct faculties come to class late and often exhausted (Gudo *et al.*, 2011). Lack of time to update their notes and prepare lead them to delivering courses according to a predetermined syllabus which make them less likely to be informed about the latest developments in an academic discipline. It also leads to repetition of content and shallow presentations (Kairu, 2011). A study by Bunoti (2009) noted that some lecturers do not prepare notes instead they download articles and assign text book chapters for students to make copies. Mwiria and Carey (2007) emphasized this by indicating that adjunct academic employees devote insufficient time to their involvement or lack adequate information about the courses they teach, and this disrupts the teaching program and leads to lack of continuity.

Good teaching, in many subject areas, is only good to the extent that it is informed by the latest research (Report to the European commission, 2013). However, part-time teaching has affected adjunct faculties research (Mageto, 2010). It has taken much of their time for preparation for the courses that they teach (Kilonzo, 2015). They no longer have time for self-development in studies and in research (Report to the European

commission, 2013). This is because they spend most of their time crisscrossing from one campus to another and driving an hour or longer to teach their next class in another campus (Brown, 2014). This lack of interaction with students has regularly been associated with less favourable undergraduate outcomes (Hearn & Deupree, 2013).

More research by Kyule *et al.* (2014) and AAUP (2003) noted those adjunct faculties invest conscious energy into activities that would minimize the uncertainty of their position. On the other hand, they have much lower expectations of their students compared to full time lecturers (Umbach, 2007). This is because, they fear experimenting with innovative strategies which will negatively influence teaching evaluations from their students (Baldwin & Wawrznski, 2011). They may less likely take risks in the classroom or in scholarly work and free exchange of ideas may be hampered by the fear of dismissal for unpopular utterances. Their students may be deprived of the debate essential to citizenship. Hearn and Deupree (2013) pointed out that these faculties are reluctant to grade rigorously for fear of accumulating negative reviews from the student and thus shaky prospects for contract renewal. According to Cross and Goldenberg (2011), lack of long-term commitment by the institutions is very demoralizing for adjunct faculty who may have invested considerable time, energy and resources in an institution and its students. It may also undermine academic and intellectual freedom (Doughrty, Rhoades & Smith, 2016).

2.4.4 Working Conditions

According to Mpaata (2010), there is empirical evidence of the relationship between employee morale and goal congruence and this is likely to come from management and professional settings rather than teaching alone. According to Mpaata (2010), when employees are dissatisfied, they are unable to change their situation or remove themselves from it, instead, they may psychologically “disengage” themselves from the job with their minds somewhere else. They may display a very low level of job involvement and commitment, reduce identifying themselves with their jobs and consider their work unimportant and not mind whether they perform well or poor

(Mpaata, 2010). According to Wanzala (2013), the poor situations of teaching staff compound with their low payments, does not allow them to get committed to providing quality performance in the institutions. The crude methods of teaching that the lecturers use in resource limited environments negatively impacts students thus compromising the quality of graduates (Wanzala, 2013). This is worse when it comes to adjunct faculty. According to Dougherty *et al.* (2016), adjunct faculties have little or no access to instructional resources and facilities that enhance their ability to engage students. In that regard, many researches on employment of adjunct faculty and students outcome shows a negative relationship, not because adjunct are bad teachers but because their working conditions prevent them from being as effective as they could be (Flaherty, 2013).

An observation by Bergmann (2011) noted that adjunct faculties are encumbered by inadequacies in the area of orientation, support system and understanding of universities and departmental policies. They have little contact with the wider university and may be less likely to know institutional policies and programs and thus cannot advise their students about them (Pankin & Weiss, 2011). They are also not given opportunities to develop professionally for their universities (Gappa & Leslie, 2005) and are accorded the most challenging task of teaching evening and weekend courses (AAUP, 2003; Okhato & Wanyoike, 2015). These inadequacies in support and challenges may affect quality service delivery and relationship between them and students.

According to Heuerman, Jones, Kelly and Mandrell (2013), many adjunct faculty feel that they teach under poor working conditions with lack of resources while others feel that they are mistreated or treated as an invisible faculty that are unseen or recognized. The adjuncts typically have no office to work from. They are not provided with a job description, course description or even a syllabus. This little or no access to instructional resources and facilities affect their ability to deliver quality service (Dougherty *et al.*, 2016).

In some cases, adjuncts assignments are made as an afterthought to the distribution of class loads for the permanent lecturer. They are notified of their teaching load later than the full time load whereas they are expected to be fully prepared to teach their courses in time (Waltman, Hollenshead, August, Miller & Bergom, 2010; Bergmann, 2011). In a study by Street, Maistro, Merves and Rhoades (2012) many adjunct lecturers cited the short amount of time to prepare for a course as one main barrier to their effectiveness in the classroom. In most institutions, many adjunct faculties receive very little notice if they will be teaching a course, since the addition of a course is reliant on last-minute changes in enrollments (Street *et al.,* 2012). Most commonly, adjunct teaches courses that must be offered even though the department does not have the staffing to do so. There is also a sense of insecurity among adjunct academic employees (Smith, 2010). This insecure relationship between adjunct faculty and their institutions can chill the climate for academic freedom, which is essential to the common good of a free society.

Adjunct faculty do not benefit from laws and policies designed to both protect workers from abuse and exploitation by employers and set minimum standards for compensation and benefits (Report by Adjunct Action/SEIU, 2014). Adjunct faculties should be integrated into the life of the institution. They should not be expected to exist as a separate community, as shadows on the periphery of the institution. According to Smith (2010), lack of institutional support for adjunct lecturers deteriorates the campus learning environment. Since these employees are rarely included in substantive decision making that supports improved teaching, learning and institutional improvement, their service delivery will be affected.

Although many adjunct faculties bring important real-world professional experience to their departments, they rarely have time or opportunity to share that knowledge with full-time members. Conversely, experienced full-time faculty rarely mentor adjunct faculty. As the number of adjunct faculty continues to soar, administrators will begin to feel greater pressure to respond to calls for accountability (Wickun & Stanly, 2011).

According to Nadeem *et al.* (2011), internal and some external factors influence the teachers success. Low pay is one of them. Fair compensation system is one of the main tools for motivating employees to reach the targets. However, according to Johnson (2010) adjunct faculty lack equal pay for equal work. They are treated as casual workforce (Bergmann, 2011). In a study by Nadeem *et al.* (2011) majority 87% of the academic employees indicated that salary related factors affect their performance and 57% noted that low salary creates hurdles for their intent to stay in teaching profession. A Report by Adjunct Action/SEIU (2014) observed that adjunct faculty does not receive their paychecks in a timely manner.

According to Cross and Goldenberg (2011), lack of long-term commitment by the institutions is very demoralizing for adjunct faculty who may have invested considerable time, energy and resources in an institution and its students. It may also undermine academic and intellectual freedom (Doughrty *et al.,* 2016).

2.4.5 Students' Satisfaction

Attaining students' satisfaction is one of the most critical objectives in all institutions of higher learning (Long, Zaiton & Kowang, 2013). Institutions that fail to attain students' satisfaction will definitely affect their reputation and students' intake in future. Dissatisfied students may also have their academic performance affected (Long *et al.,* 2013). Customers are satisfied when the service fits their expectations, or very satisfied when the service is beyond their expectation or completely satisfied when they receive more than they expect (Bettiger & Long, 2006). On the contrary, customers are dissatisfied when the service is below their expectations and when the gap is high; they tend to communicate the negative aspects-complain.

According to Keblawi *et al.* (2013), service quality has been examined to measure customer satisfaction. Universities are service providers. The services offered by the universities include, but not limited to teaching. It is of great importance that the teaching quality is significantly high, since competition to attract, maintain and foster

students amongst universities are fierce today (Keblawi *et al.,* 2013). Students' satisfaction may occur during the consumption of the service. In other words, it is the general evaluation of service after it has been completed or during the consumption of it (Devasagayam, Stark & Valestin, 2013). Service quality is the comparison between a consumer's expectations and the perception of the service. We assume that students' consider their past experiences into account when they evaluate their expected service quality (Sultan & Wong, 2012). Sultan and Wong (2012) indicated that past experiences provides a brief cognitive standard and helped in evaluating the standard of service quality of present and/or future service encounters. Ologunde, Akindele and Akande (2014), noted that moonlighting is a chronic problem, one that hurt the efficiency of public service. These researchers noted that employees spend extra-time doing their extra jobs instead of completing their tasks. Their study findings showed that if lecturers teach in more than one university, their performance and quality of service offered will be significantly affected negatively. That means teaching in more than one university will negatively affect lecturers performance (Olgunde *et al.,* 2013). This will also affect students since it not only deprive them what they are supposed to be taught but also cause sessions jams that takes away from the students vital years of their lives.

A crucial factor in students' satisfaction is quality in teaching and learning process. According to Suarman (2015) the content of each lesson should be delivered effectively through various teaching methods. The lecturer should use impressive and creative approaches that will ensure effective and smooth lectures in addition to meaningful lesson. But according to Kyule *et al.* (2014) there is a possibility that contracted lecturers either have no effect on student learning or negatively impact students' outcome. A study conducted by Bettiger and Long (2005) noted that the use of adjuncts is causing the quality of higher education to deteriorate.

Higher satisfaction rate of students will be noted through graduates' innovativeness particularly on entrepreneurship and the ability of the graduates to contribute for the community Suarman, 2015). A lecturer should be able to plan and provide a set of learning opportunities that offer access to crucial concepts and skills for all students. The

first thing a lecturer must do is to design an effective classroom so as to create conducive learning environment that supports students' engaged learning and meaningful instructions. These elements of lesson planning serve as a guide for beginning lecturer to be good in the classroom. Lesson planning makes teaching more conscious and purposeful; one is able to articulate what they plan to do, what they do and why they do it (Marzano, 2007). The aim of lesson planning is also to avoid students being overwhelmed with information.

2.5 Critique of the Existing Literature

Several studies were reviewed with a view to building a case for the current study. The studies reviewed are those related to adjunct faculty and students' satisfaction/outcome. Some of these studies include, Choi *et al.* (2014) whose study was on an analysis on the relationship between lecturers' competencies and students' satisfaction. They noted that achievement is likely to be realized when students receive instructions from lecturers with good teaching competencies. Metzler and Woessmann (2012) recommended that lecturers should develop strong teaching competencies in order to deliver quality service. The study concentrated on one adjunct faculty factor that influence students' satisfaction, that is, competency of adjunct faculty. More attention should be given to other factors that may influence students' satisfaction.

Okhato and Wanyoike (2015) also researched on adjunct faculty. These researchers concentrated on part-time lecturers in regard to effective utilization of resources. The study observed the challenges public universities in Nakuru County face in utilization of resources for competitive advantage. The study did not give much attention on students' satisfaction in the hands of outsourced adjunct faculty.

Bettinger and Long (2006) sought to find out whether the college instructors matters and in (2010), they sought to establish whether cheaper means better. The 2006 study concentrated on lecturers' competencies on students' outcome. Apart from concentrating on one characteristic 'competency', the study was not done in Kenya. Their 2010 study

was on the impact of using adjunct instructors on students' outcome. This study concentrated on adjunct faculty in regard to students' enrollment for a course. The study did not give attention to other factors like work ethics of the adjunct faculty, their role profile nor the working condition of the adjunct faculty.

Mageto (2010) study concentrated on "The corporate & personal ethics for sustainable development: experiences, challenges and promises of part-time teaching in selected universities in Kenya". In this study, Mageto concentrated on the plights (experiences and challenges) that adjunct faculty continues to encounter while discharging their duties. This study did not pay attention to the plight of students in the hands of these outsourced faculties.

Kyule *et al.* (2014) studied on strategizing cost: effect of part-time lecturers on university education in Kenya. The study theme was 'cost'. The study noted that universities use adjunct faculty to cut on cost hence affecting university education. The study did not pay attention to outsourced adjunct faculties' characteristics such as competence, role profile or work ethics and how that can influence students' satisfaction.

Ologunde *et al.* (2013) study concentrated on "Moonlighting among university lecturers and their performance in the South-Western Nigeria". In their study, Ologunde *et al.* concentrated on the lecturers not the students. They concentrated on how moonlighting affect lecturers' teaching, project supervision and paper publication. Their study gave more attention on how moonlighting affect lecturers not students.

Out of all the studies done on adjunct faculty, none had working condition as the moderating effect. None of these studies brought out clearly the challenges of outsourcing in organizations.

2.6 Research Gaps

Studies highlighting on lecturers competencies were done by Choi *et al.* (2014); Uddin and Hossain (2012); Kyule *et al.* (2014); Zakaria and Yusoff (2011); Kilonzo (2015); Nadeem *et al.* (2011). These researchers noted that lecturers' competency was of paramount importance in students' satisfaction and outcome. Majority of these researchers generalized all the lecturers in their studies - adjunct faculty and permanent faculty. Those who concentrated on adjunct faculty would either investigate one or two sub-variables. They would either establish the work experience of the faculty or their academic qualification. The study in progress did not only look at the competency of the adjunct faculty in terms of academic qualification and work experience but also on attitude of adjunct faculty towards teachings, their professional qualifications, class management skills, communication skills and area of specialization.

The studies on role profile included study by Porter and Umbach (2000). They noted the roles of the faculties in general. The team did not highlight the roles of adjunct faculty in particular. Majority of the studies on role of adjunct faculties highlighted on what adjunct faculty does not do than what they do. For instance Lumasia and Kiprono (2015); Kyule *et al.* (2014); Brown (2014) noted that adjunct faculty do not provide hours for consultation. The study underway sought to establish first the role profile of a lecturer in general, then establishing whether adjunct faculties adhere to the role profile of a lecturer.

Studies highlighting on work ethics were researched by Bunoti (2009); Kyule *et al.* (2014); Gudo *et al.* (2011), Umbach, (2007), Baldwin and Wawrznski (2011); Hearn and Deupree (2013). Though majority of these researchers identified that adjunct faculties may have issues with adhering to work ethics and professionalism in their part-time job, none connected this to students' satisfaction. The researchers only highlighted few unethical behaviours associated with adjunct faculty without indicating how any of these behaviours can influence students' outcome. The ongoing study not only established

work ethics adhered to or not adhered to by adjunct faculty but also established how such behaviours can influence students' outcome.

Studies elaborating on the working conditions of adjunct faculty were researched by Heuerman *et al.* (2012), Leszinke *et al*. (2012), Bergmann (2011), Okhato and Wanyoike (2015), Street *et al.* (2012) and many others. The studies brought into the light the working conditions and environment the adjunct faculty works in. Though these studies put in the public eye the working conditions of adjunct faculty, they did not connect their studies to how this can influence students' satisfaction. These other studies did not use it as their moderating variable too. The current study did not only use working conditions as a moderating variable but also sought to establish how the variable influences students' satisfaction.

Studies on students' satisfaction have been done by Bettiger and Long (2005; 2010), Choi *et al.* (2014), Ekinci, (2004), Keeling and Hersh (2012) and many others. Although majority of these studies were not done in Kenya, very few connected students' satisfaction to adjunct faculty. The few that connected students' satisfaction with adjunct faculty were not exhaustive. They would compare one adjunct faculty characteristic to students' satisfaction. The current study established all the possible factors that can influence students' satisfaction.

2.7 Summary of Literature

After the empirical review, it was noted that outsourcing adjunct faculty was the new norm in all the public and private universities in the world. The studies also noted that this new norm will continue for longer. Despite the increase in outsourcing of adjunct faculties in universities, their competency level, work profile and work ethics at work has not been established. It was noted that their characteristics, employment and contractual circumstances are not defined. Among the few researches that have been done on adjunct faculty, none has concentrated on how outsourcing adjunct faculties can influence students' satisfaction in Public Universities in Kenya. There is also no clear

cut on what the role profile of adjunct faculty is or whether their competencies are required to fulfill those teaching roles.

This study was supported by a number of theories. Ability-motivation-opportunity theory which connote that what employees know and are capable of doing is of paramount importance. It encourages the employer to consider keenly employee's capabilities. It also emphasizes the use of motivation to enhance performance. Deontological moral theory was also employed in the study to support work ethics. This theory denotes that some acts are always wrong even if the acts lead to an admirable outcome. It emphasize to the outsourced staffs that one should be morally upright in what they do. Herzberg Two-Factor theory indicates that there are motivator factor that lead to employee satisfaction and there are dissatisfies that when absent de-motivate. Employers should put all those in place before outsourcing staff to ensure motivation hence performance. Finally, social exchange theory was employed in the study. The theory posits that social behavior is the result of an exchange process. Positive worker attitude depends on employees' perception of how committed the employing organization is to them.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses on research philosophy, research design, target population, sampling techniques, sample size, data collection tools, pilot study, data analysis processes and procedures and ethical consideration.

3.2 Research Philosophy and Design

3.2.1 Research Philosophy

Philosophical paradigm is a basis set of beliefs that guide actions (Creswell, 2014). It considers the role of assumptions we make about the way the worlds works; what varied philosophers considers to be acceptable knowledge and the role of our own values and research paradigms (Saunders, 2009). This study was guided by *post-positivism* philosophical paradigm. This philosophy fits well with quantitative research and holds a deterministic philosophy in which causes probably determine effects or outcomes (Creswell, 2014). In this philosophy, there is need to identify and assess the causes that influence outcomes. Here, research seeks to develop relevant, true statements, ones that can serve to explain the situation of concern or that describe the causal relationships of interest. The causal relationships of interest being adjunct faculties influence on students' satisfaction.

3.2.2 Research Design

A research design is the pattern the research follows. It describes the plan or strategy for conducting the research (Oso & Onen, 2005). According to Shajahan (2004), research design is a series of advance decisions taken together from a specific master plan or model for conducting an investigation. It is a structure or framework to guide data

collection and analysis. This study employed cross-sectional survey research design. Cross-sectional survey research design is a procedure in which investigators administer a survey to a sample or to the entire population. Survey research provides a quantitative or numeric description of trends, attitude or opinions of a population by studying a sample of that population (Creswell, 2014). It is used to describe characteristics that exist without manipulating the variables. The study deems this design relevant for the study because, in cross-sectional survey research design data is obtained using questionnaires (self-report surveys) and researcher is able to amass large amount of information from a large pool of participants (Creswell, 2014). The design is also beneficial in that the research can collect data on some different variables to see how differences may correlate with the critical variable of interest. However, the major weakness of survey is that it tends to emphasize the scope of information at the expense of depth. At the same time, survey studies are prone to sampling errors (Kerlinger, 1983). To curb the weakness, mixed research method was employed.

3.3 Target Population

Population is the universe of units from which a sample is to be selected (Sekaran, 2010). The term unit is employed because it is not only people that are selected, but also nations, cities, regions and firms (Bryman & Bell, 2007). However, Schindler and Cooper (2006) defined population element as the individual participant or object on which the measurement is taken.

This study targeted all the Public Universities in Kenya. The reason for targeting Public Universities in Kenya is because these universities are the ones that are fully affected by the government's strategy to cut on cost and double intake to reduce delay in admission of qualified students (Wanzala, 2016; Oduor, 2016).

The respondents of the study were Students, Heads/Chairman of Departments (HoDs/CoDs) and Directors Quality Assurance (DQA) in the 31 Public Universities in Kenya. The reason for choosing the three is because students and HoDs have direct

interaction with adjunct faculties and the DQA review assessment reports from students about the faculties. This make the three fit to give unbiased report about adjunct faculty.

3.4 Sampling Frame

Sampling is the process of selecting a sufficient number of elements from the population, so that a study of the sample and an understanding of its properties or its characteristics would make it possible to generalise such properties or characteristics to the population elements (Sekaran, 2007).

According to Schindler and Cooper (2006) sampling frame is a list of elements from which the sample is drawn. The sampling frame for this study consists of the thirty one (31) Public Universities in Kenya (CUE, 2013). Students, HoDs/CoDs and Directors Quality Assurance were queried. All the respondents' responded to a similar questionnaire. The questionnaire was devised in a way that all the respondents could respond to the same questionnaire. This eased coding and analysis.

3.5 Sample and Sampling Technique

3.5.1 Sample Size

A sample size is a representation of a population (Kothari, 2004). The sample size data was acquired from the Universities Websites 2016. A sample size of 30% was used. This is according to Mugenda and Mugenda (2003) who indicated that a sample of between 10% and 30% is regarded a good representation of the target population. In this regard, 30% of the 31 Universities were selected.

$$n = \frac{30}{100} x31 \qquad n = 9.3$$

This equalled to 9.3, rounded off to 9 Public Universities in Kenya. The study using purposive random sampling selected three old/long-standing universities, three

universities that were chartered in 2012/2013 and three that were chartered in 2016/2017 as shown in Table 3.1

Sampling allows a researcher to reduce the amount of data that they need to collect by examining only a sub-group of the total population (Saunders, Thornhill & Lewis, 2003). The main reason for considering the sample size was the need to keep it as manageable as possible. This also enables the study to derive from research a detailed data at an affordable cost and in time.

While determining the sample size from the target population Paler-Calmorin and Calmorin formula devised in 2006 was utilized (Calmorin, & Calmorin, 2006). This method was used because it is one of the best formulae in determining the sample size in probability sampling (Bayissa & Zewdie, 2010). The study assumed the sampling error of 1% and 99% reliability. It is assumed that the standard value at 1% level of probability is 2.58 with 99% reliability and a sampling error of 1% or 0.01.

Then the sample size for respondents was calculated using Paler-Calmorin and Calmorin formula as shown:-

$$n = \frac{NZ + (Se)^2 x(1-P)}{NSe + Z^2 xP(1-P)}$$

Where

n = Sample size for students, HoDs and DQA

N = Total number of population of students, HoDs and DQA 237,004 in the 9 Public Universities in Kenya

Z= the standard value (2.58) of 1% level of probability with 0.99 reliability

Se= Sampling error (0.01)

p = the population proportion (0.5)

Application for students, HoDs and DQA sample:-

$$n = \frac{237{,}004(2.58) + (0.01)^2 * (1 - 0.5)}{237{,}004(0.01) + 2.58^2 * 0.5(1 - 0.5}$$

$$n = \frac{611{,}470.32 + 0.0001 * 0.5}{2{,}370.04 + 6.6564 * 0.25}$$

$$n = \frac{611{,}470.32 + 0.00005}{2{,}370.04 + 1.6641}$$

$$n = \frac{611{,}470.32005}{2{,}371.7041}$$

$$n = 257.818$$

The sample size was therefore 258 respondents (Students, HoDs and DQA).

Application

Total sample 258 minus (-) fixed DQAs 9 = Total students and HoDs = 249

249 divide into the ratio of 70:30; that is 70% students and 30% HoDs

$$Students = \frac{249}{100} x70 = 174 \qquad Students = \frac{University'student'pulation}{Totalstudent'population} x174$$

$$HoDs = \frac{249}{100} x30 = 75 \qquad HoDs = \frac{University'HoDs'population}{TotalHoDs'population} x75$$

Table 3.1: Sample Distribution

No	Public Universities in Kenya	Population			Sample Size		
		Students	HoD	DQA	Students	HoD	DQA
1	University of Nairobi	78,000	76	1	57	19	1
2	Moi University	51,000	63	1	37	16	1
3	Kenyatta University	70,000	72	1	51	18	1
4	Kimathi University	6,500	19	1	5	5	1
5	Karatina University	7,000	22	1	5	6	1
6	Technical University of Kenya	10,000	14	1	7	4	1
7	Murang'a University	3,200	12	1	3	3	1
8	Cooperative University of Kenya	10,000	10	1	7	3	1
9	Garissa University	1,000	7	1	2	1	1
	Total	**236,700**	**295**	**9**	**174**	**75**	**9**
		237,004			**258**		

Source: Universities Websites (2016)

3.5.2 Sampling Technique

Sampling procedure and technique is the process of selecting the subject or cases to be included in the sample. Purposive random sampling was used to select the nine universities. Stratified random sampling was used to select the three categories of the respondents. Within the strata, simple random sampling was used to select individual respondents. Simple random sampling gives all individuals equal chance of being selected and not more than once to prevent a bias that would negatively affect validity (Ng'ang'a, Kosgei & Gathuthi, 2009). One DQA was purposively selected for every university since the universities have only one director for quality assurance.

3.6 Data Collection Instruments

The data collected was quantitative and qualitative and it was collected using questionnaires. The questionnaire had both open and closed ended questions although open-ended questions (qualitative) were converted into quantitative data during data analysis using homogeneity index formula. Questionnaire was chosen because it gives respondents enough time to give well thought out answers, it is low in cost and saves on time. While closed ended questions are quicker and easier for both the respondent and the researcher, they tend to lose something important about the respondents beliefs and feelings that cannot be expressed in a few fixed categories (Kothari, 2003; Neuman, 2000). Using a mix of both allows for extraction of the most relevant information and exploiting the advantages of the two types of questions. Generally speaking, such systematic procedure in data collection is necessary where statistical representativeness is of importance.

3.7 Data Collection Procedure

Permission was sought from the necessary authority and an introductory letter was used as an introduction tool to the targeted group. The 258 questionnaires were distributed to the respondents by the researcher and a trained research assistants from university to university, through hand delivery. The research assistants gave each respondent one questionnaire and these respondents were expected to fill in the questionnaire and return. The questionnaire was phrased in a way that all the respondents filled similar questionnaire.

3.8 Pilot Study

Pilot study was conducted to test the logic and to improve the quality and efficiency of data collected using the questionnaires. Lancaster and Williamson (2006) stated that a pilot study was a feasibility study designed to test logistics and gather information prior to a large study hence helps in revealing deficiencies which can be addressed before

resources can be expended on large scale studies. The pilot study was done in University of Kabianga where 10% of the study sample size was considered. University of Kabianga is a Public University just like the sampled universities and therefore expected to give a view of the expected results. Since pilot study aims at checking the reliability or validity of the data collection tools, a sample of 10% was deemed appropriate because pilot study aims at getting impression/an overview of the questionnaire but it is not the real study. Twenty six questionnaires were distributed to the Students, HoDs and DQA and 22 (84.62%) were returned. The data analysis for pilot study was not considered in the main study's data analysis. Its analysis was facilitated by the use of the Statistics Package for Social Science (SPSS) version 21.

3.8.1 Reliability Test

Reliability is the degree to which a measurement technique can be depended upon to secure consistent results upon repeated application (Jonathan Weiner & John Hopkins University, 2007). Neuman (2000) also defines reliability as the ability of a test to consistently yield the same results when repeated measurements are taken under the same conditions. Basically, reliability is concerned with consistency in the production of the results and refers to the requirement that, at least in principle, another researcher, or the same researcher on another occasion, can be able to replicate the original piece of research and achieve comparable evidence or results, with similar or same study population. Any random influence that tends to make the measurement different from occasion to occasion is a source of error, unless the differences are such that they maximize systematic variance. Reliability is concerned with precision and accuracy. For research to be reliable it must demonstrate that if it were to be carried out on a similar group of respondents in a similar context (however defined), then similar results would be found. There has been a debate as to whether the cannons of reliability of quantitative research apply to qualitative research. Cohen (2000) seeks to differentiate the two by stating that quantitative research reliability can be regarded as a fit between what researcher's record and what actually occurs in the natural setting that is being researched example, the degree of accuracy and comprehensiveness of coverage.

Replicability may be achieved in the status positions of the researcher's choice of informant/respondents, social situation and conditions under investigation, analytical constructs and premises that are used and the methods of data collection and analysis.

Since reliability is a statistical coefficient, it was measured using internal consistency technique, which is determined from scores obtained from a single test administered by the study to a sample of subjects. In this approach, a score obtained in one item is correlated with scores obtained from other items in the instrument. Cronbach Coefficient Alpha was computed to test internal consistency and determine how items correlate among themselves. Cronbach's alpha is the most commonly used measure of reliability for scored data. The most acceptable alpha is 0.70 and above since values range from 0 to 1. Other studies however recommends reliability coefficient of 0.50 or 0.60 as sufficient (Cosenza, 1998). A high value indicates reliability; while too high a value in excess of 0.9 indicates a homogeneous test (Hair, Babin, Money & Samuel, 2007). This study considered a threshold of 0.6 to be sufficient as shown in Table 3.2

Table 3.2: Cronbach Alpha values

Variables	Number of items	Cronbach alpha	Status
Competence	8	0.745	Reliable
Role Profile	9	0.609	Reliable
Work Ethics	12	0.820	Reliable
Working Condition	9	0.725	Reliable
Students Satisfaction	9	0.884	Reliable

The reliability level of pilot study using Cronbach alpha was as indicated above. The Cronbach alpha for competence, work profile, work ethics, working condition and students' satisfaction had internal consistence that meet the required threshold therefore considered reliable for subsequent analysis.

3.8.2 Validity Test

Validity is the degree to which any measurement approach or instrument succeeds in describing or quantifying what it is designed to measure (Jonathan Weiner & John Hopkins University, 2007). Mugenda and Mugenda (2003) also defined validity as the accuracy and meaningfulness of inferences, which are based on research results. Validity therefore is the extent to which an instrument can measure what it is supposed to measure. It looks at the extent to which an instrument asks the right questions in terms of accuracy. Validity is the degree to which results obtained from the analysis of the data actually represents the phenomenon under study. Validity, therefore, has to do with how accurately the data obtained in the study represents the variables of the study. If such data is a true reflection of the variables, then, inferences based on such data will be accurate and meaningful. The instruments were rated in terms of how effectively they sampled significant aspects of the purpose of the study and fulfill the study objectives.

Factor analysis was conducted to extract the items that were fit for the study. Factor analysis is a method of data reduction. It does this by seeking underlying unobservable (latent) variables that are reflected in the observed variables (manifest variables). Beaumont (2012) indicated that correlation matrix is the point for factor analysis; the purpose was to check the strength of the inter-correlations among the factors. Kaiser-Meyer-Olkin (KMO) measure of sampling on all the variables was computed as indicated in the Table 3.3

Table 3.3: KMO and Bartlett's Test

Variables	Kaiser-Meyer-Olkin of sampling adequacy	Barlett's test of Sphericity approx Chi-square	df	Sig
Competence	0.555	69.187	28	0.000
Work Profile	0.504	59.763	36	0.008
Work Ethics	0.519	136.179	78	0.000
Working Condition	0.446	45.727	36	0.128
Students' Satisfaction	0.756	88.580	28	0.000

The test on Kaiser-Meyer-Olkin of sampling adequacy indicated that variables on competence, work profile, work ethics and students' satisfaction had reached values above 0.5 as recommended by Kaiser (1974). However variable on working condition had KMO of 0.446. On this note, the items on working condition were revised, reformatted and more questions added to this variable to make it viable. After revising and reformatting the variable - working condition KMO became significant at $p<0.05$ with KMO of 0.774

3.9 Data Analysis and Presentation

The procedures that followed in data analysis began with coding and data entry into the analysis package that facilitates analysis and deductions. The data analysis was facilitated by use of the Statistics Package for Social Science (SPSS) version 21. According to Nachmias, Nachmias and Dewaard (2014) coding involves classifying responses into meaningful categories and assigning numeric values called codes that may and are often used as scores for the responses. Missing values were not many and they were imputed using the mean.

The data was presented quantitatively. Any qualitative data was first converted into quantitative data for ease of analysis using homogeneity index formula. The results were presented using tables and figures. The data analysis methods that were used in this study were factor analysis, descriptive analysis, correlation analysis, simple and multiple linear regressions. The reliability test, normality-test, F-test and t-test were also done.

The descriptive analysis means summarizing a given data set which can either be a representation of the entire population or a sample. The measures used to describe the data set were percentages, measures of central tendency and measures of variability or dispersion. Frequency tables with percentages were generated and used to describe the findings.

The study firstly carried out factor analysis. Factor analysis is a statistical method used to describe variability among observed, correlated variables in terms of potentially lower number of unobserved variables called factors. It is used to reduce a large number of related variables to more manageable number before using them in other analysis such as regression. According to Yong and Pearce (2013) factor analysis operates on the notion that measurable and observable variables can be reduced to fewer latent variables that share a common variance and are observable which is known as reducing dimensionality. In this study, factor analysis was performed using the principal components methods of analysis. But before factor analysis is performed, Field (2005) recommended checking Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and Bartlett's measures to determine factor analysis appropriateness. The Kaiser-Meyer-Olkin (KMO) measures of sampling adequacy provide an index between 0 and 1 of the proportion of variance among the variables that might be common variance. Kaiser (1974) suggest that a KMO near 1.0 supports a factor analysis and that anything less than 0.5 is probably not amenable to useful factor analysis. In other words, a value closer to 1 indicates that the patterns of correlations are relatively compact and that factor analysis will yield more distinct and reliable factor (Field, 2005). In this study, a KMO value of 0.5 and above was considered adequate as recommended by Kaiser (1974). Bartlett's Test was also performed. Bartlett Test according to (Snedecor &

Cochran, 1989) is used to test if the *k* samples have equal variances. Equal variances across samples are called homogeneity of variances. Bartlett's Test of Sphericity tests the null hypothesis that the correlation matrix is an identity matrix. Factor analysis cannot work if there is no relationship between variables. To find out if there is a relationship, a threshold value was chosen, called the significant level at $p < 0.05$. Very small values of significance (below $p < 0.05$) indicate a high probability that there are significant relationships between variables, whereas higher values ($p > 0.05$ and above) indicate the data is inappropriate for factor analysis.

Secondly, normality test were tested using Shapiro-Wilk test, histogram and Q-Q plots. Shapiro-Wilk normality test determines whether there is a normal distribution of the sampled population at the value of $P > 0.05$. Histogram should show a normally distributed curve and in the Q-Q plot, the scatters should lie as close to the line as possible with no obvious patterns coming away from the line (outliers).

Thirdly, correlation was done. Correlation analysis is a measure of linear association between two variables. It shows the direction of linear relationship such as positive or negative (Pallant, 2005). It also shows the strength of the relationship that is weak or strong. The sign of the correlation coefficient indicates the direction of the association and the magnitude of the correlation coefficient indicates the strength of the association. According to Green, Salkind and Akey (2000) a correlation coefficient of ± 0.10 is interpreted as small or weak, ± 0.30 as medium and ± 0.50 as large or strong regardless of the sign and above ± 0.70 show a sign of multicolliniality. Pearson correlation coefficient was used in measuring correlation. Pearson correlation coefficient offers a numerical outline of the direction and strength between two variables. To check on multicollinearity, variance inflation factor (VIF) was used. Pallant (2005) advocates multicollinearity diagnosis on predictor variables as part of multiple regression procedure. Multicollinearity exists when the independent variables are highly correlated, that is above ± 0.70 (Pallant, 2005). The study adopted O'Brien (2007) VIF value assumptions. Heteroscedasticity tests were done. Heteroscedasticity refers to a phenomenon where data violates a statistical assumption when homoscedasticity is

violated. It can lead to an increased type I error rates or decreased statistical power because it can affect substantive conclusion. To manage homoscedasticity, all outliers were removed.

3.9.1 Statistical Models

Simple and multiple linear regressions were done. Simple linear regression is used to measure one independent variable from one dependent variable.

a) In this study, a simple linear regression was performed between students' satisfaction (dependent variable) and competency of adjunct faculty (independent variable) to determine how well competency can predict students' satisfaction. The regression equation model was established as follows:-

$$y = \alpha_1 + \beta_1 X_1 + \varepsilon$$

Where y is students' satisfaction, x_1 is competency, β_1 is coefficient of correlation and ε is the residual. In this case the independent variable role profile, work ethics and moderating variable working conditions were held constant.

b) To determine whether role profile influences students' satisfaction, regression analysis was done using the regression equation model below:-

$$y = \alpha_2 + \beta_2 X_2 + \varepsilon$$

Whereby y is students' satisfaction, β_2 is the coefficient correlation, x_2 is role profile. In this case, the independent variable competency, work ethics and moderating variable working conditions were held constant.

c) To establish whether work ethics influences students' satisfaction, regression analysis was done using the regression equation model below:-

$$y = \alpha_3 + \beta_3 X_3 + \varepsilon$$

Whereby β_3 is the coefficient of correlation of work ethics, x_3 is work ethics and y is students' satisfaction. In this case, the independent variable competency, role profile and moderating variable working conditions were held constant.

Multiple linear regression analysis was carried out after scatter plots had shown a linear relationship, to establish the strength of the established relationships by determining product moment's coefficient of correlation and the coefficient of determination to explain variations in the related variables. Since all the study variables involved more than one sub-variable, multiple regression was done. Multiple linear regressions give the relationship between one dependent variable with two or more independent variables. Regression equation was established and the constants and coefficients (α, β) of the various variables were tested for significance at 95% confidence level. The multiple linear regression equation model was:-

$$\mathbf{Y} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where:-

$\mathbf{Y}$ = Students' satisfaction

X_1 = Competence

X_2 = Role profile

X_3 = Work ethics

β_0 = Constant

β_1 = Regression coefficient of variable X_1

β_2 = Regression coefficient of variable X_2

β_3 = Regression coefficient of variable X_3

ε = Error

Moderating variable was used to explain 'when' a dependent variable and independent variable are related. Moderation effect was tested with hierarchical multiple regression analysis. Moderation variable changes the direction or magnitude of the relationship between independent and dependent variables. The equation is:-

$$\mathbf{Y} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 Z + \beta_5 X_1 Z + \beta_6 X_2 Z + \beta_7 X_3 Z + \varepsilon$$

Where:-

$\mathbf{Y} =$ Students' Satisfaction

$\beta_0 =$ Constant

$\beta_1 =$ Regression coefficient of variable X_1

$\beta_2 =$ Regression coefficient of variable X_2

$\beta_3 =$ Regression coefficient of variable X_3

$\beta_4 =$ Regression coefficient of variable Z

$\beta_5 =$ Regression coefficient of variable X_1 with the interaction Z

$\beta_6 =$ Regression coefficient of variable X_2 with the interaction Z

$\beta_7 =$ Regression coefficient of variable X_3 with the interaction Z

$X_1 =$ Competence

$X_2 =$ Role profile

$X_3 =$ Work ethics

$Z =$ Moderating variable (working condition)

$\varepsilon =$ Error

If there was no significant relationship on the dependent variable from the interaction between the moderator and independent variables, then the study would have concluded that moderation was not supported.

3.9.2 Hypotheses Testing

Analysis of variance (ANOVA) for regression was used to test the hypothesis using the F-distribution (F-test). Specifically, it tested the null hypothesis. For this test, F-test and t-test was required to be statistically significant at $p < 0.05$.

$H_0 : \beta_1 = \beta_2 = \beta_3 = 0$ X_1, X_2, X_3 regression coefficient of independent variables: competency, role profile and work ethics attributes were equal to zero.

$H_1 : \beta j \neq 0$; j=1,2,3 $\longrightarrow$ X_1, X_2, X_3 regression coefficient of at least one of the independent variable is not equal to zero.

3.10 Operationalization of the Study Variables

The variables under study are competence, role profile, work ethics, working condition and students' satisfaction. The variables was operationalized as indicated in Table 3.4

Table 3.4: Operationalization of the Study Variables

Hypothesis	TYPE OF VARIABLE	INDICATOR	MEASURE	LEVEL OF SCALE	APPROACH OF ANALYSIS	TYPE OF ANALYSIS	LEVEL OF ANALYSIS
Competence of adjunct faculty has no significant influence on students' satisfaction	Independent variable – competence of outsourced adjunct faculty	Qualification (academic, subject knowledge, work experience, professional training), work attitude, publications, management and communications skills,	Competence score was used to determine and know if the result was discreet, continuous, interval or ordinal.	Nominal, ordinal, interval and ratio scales	Field research and phenomenology	[1] Descriptive analysis – measure of central tendency and measure of variability or dispersion. [2] Inferential analysis Factor analysis, correlation, Simple & multiple linear regression, t-test, F-test and ANOVA	Meso and macro level of analysis
Role profile of outsourced adjunct faculty has no significant influence on students' satisfaction	Independent variable– work profile of outsourced adjunct faculty	Teaching, consultation, mentoring, evaluation, research, community service/outreach, departmental responsibilities	Work profile score was used to determine and know if the result was discreet, continuous, interval or ordinal	Nominal, ordinal, interval and ratio scales	Field research and phenomenology	[1] Descriptive analysis – measure of central tendency and measure of variability or dispersion. [2] Inferential analysis Factor analysis, correlation, Simple & multiple linear regression and ANOVA -t-test, F-test	Meso and macro level of analysis

Work ethics of outsourced adjunct faculty has no significant influence on students' satisfaction	Independent variable – work ethics outsourced of adjunct faculty	Loyalty/ commitment/ self-drive, priority/ centrality of work, drive to work, punctuality, preparedness, professionalism, morality, reliability	Work ethics score was used to determine and know if the result was discreet, continuous, interval or ordinal	Nominal, ordinal, interval and ratio scales	Field research and phenomenology	[1] Descriptive analysis – measure of central tendency and measure of variability or dispersion. 2] Inferential analysis Factor analysis, correlation, Simple & multiple linear regression and ANOVA - t-test, F-test	Meso and macro level of analysis
Working conditions of outsourced adjunct faculty has no significant moderating effect on students' satisfaction	Moderating variable – working conditions of outsourced adjunct faculty	Hiring process/ orientation, operation office/ co-workers support/ supervisors support/ training support/recognition and involvement in decision making, compensation	Working conditions score was used to determine and know if the result was discreet, continuous, interval or ordinal	Nominal, ordinal, interval and ratio scales	Field research and phenomenology	[1] Descriptive analysis – measure of central tendency and measure of variability or dispersion. [2] Inferential analysis Factor analysis, correlation/moderating eefcct/ ANOVA t-test, F-test	Meso and macro level of analysis

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

The study sought to establish the influence of outsourcing adjunct faculty on students' satisfaction in public universities in Kenya. Specifically, it focused on establishing the competency level of outsourced adjunct faculty, their role profile, their work ethics, working conditions and students' satisfaction. This chapter discusses the descriptive statistics and inferential statistics of each variable. The data was presented using tables and figures.

4.2 Response Rate

Response rates are calculated by dividing the number of usable responses returned by the total number eligible in the sample chosen (Fincham, 2008). Out of the 258 questionnaires that were administered to the 9 Public Universities in Kenya, 250 questionnaires were returned. One hundred and fifty of the respondents were male and 100 were female as shown in Table 4.1.

Table 4.1: Response rate

No	Universities	Sent	Received	%	Male	Female
1	University of Nairobi	77	77	100	39	38
2	Moi University	54	53	98	40	13
3	Kenyatta University	70	64	91	34	30
4	Kimathi University of Agriculture and Technology	11	11	100	8	3
5	Karatina University	12	11	91	7	4
6	Technical University of Kenya	12	12	100	6	6
7	Murang'a University	7	7	100	4	3
8	Cooperative University of Kenya	11	11	100	8	3
9	Garissa University	4	4	100	4	0
	Total	**258**	**250**	**96.8**	**150**	**100**

The response rate was 97% which is way far above 50% that is considered adequate for subsequent analysis in research study (Babbie, 2002). This was therefore considered adequate for further subsequent analysis.

4.3 Background Information of the Respondents

This section discusses the background information of the respondents namely gender and age.

4.3.1 Gender of the Respondent

The response rate of the male respondents was 150 (60%) and female 100 (40%) as shown in Table 4.2.

Table 4.2: Gender

Gender	Frequency	Percentage
Male	150	60
Female	100	40

Since the respondents were randomly selected and each respondent had an equal chance of being selected, it therefore implies that female students, HoDs/CoDs and DQA are fewer than men in Public Universities in Kenya. These findings conform to Kamau, *et al.* (2013) study in Public Universities in Kenya which revealed similar results; male respondents were 165 (66.3%) and female respondents were 84 (33.7%). Kilungu (2015) study in Public Universities in Kenya also noted that 70.5% of the respondents were male and 29.5% were female. Abagi, Nzomo and Otieno (2005) associated this gender disparity in universities with unfavorable study settings for girls in secondary schools which make female participation in terms of access, persistence and achievement

difficult. However, for the HoDs and DQA, this finding implies that affirmative action that emphasizes giving 30% of all job vacancies to women has been observed.

4.3.2 Your Category

The study categorized the respondents into three groups and the response rate was 69.2% students, 27.6% HoDs and 3.2% DQA as shown in Table 4.3

Table 4.3: Category of the respondents

Category	Frequency	Percent
Student	173	69.2
HoD	69	27.6
DQA	8	3.2
Total	250	100.0

The respondents cut across all the important players in the university. students are represented, heads of department and management through director quality assurance. The category helped the study to deduce what each group feels about outsourcing adjunct faculty in universities.

4.3.3 Age of the Respondents

The study sought to establish the age of the respondents based on various groups. The study found out that majority 138 (55.2%) of the respondents were aged between 21-30 years of age as shown in Table 4.4

Table 4.4: Age of the Respondents

Age	Frequency	Percentage
Below 20	28	11.2
21-30	138	55.2
31-40	37	14.8
41-50	31	12.4
Above 50	16	6.4

The reason for bringing out the age factor was to have the feelings from all age groups, young to old. Majority were between 21-30 an implication that most of the responses came from young-aged group. This group is very critical and aggressive and therefore the best in scrutinizing the performance of the outsourced adjunct faculty.

4.4 Kaiser-Meyer-Olkin Measure and Bartlett's test

Before factor analysis is performed, Field (2005) recommended checking Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and Bartlett's measures to determine factor analysis appropriateness. The Kaiser-Meyer-Olkin (KMO) measures of sampling adequacy provide an index between 0 and 1 of the proportion of variance among the variables that might be common variance. Kaiser (1974) suggest that a KMO near 1.0 supports factor analysis and that anything less than 0.5 is probably not amenable to useful factor analysis. In other words, a value closer to 1 indicates that the patterns of correlations are relatively compact and that factor analysis will yield more distinct and reliable factor (Field, 2005). In this study, a KMO value of 0.5 and above was considered adequate as recommended by Kaiser (1974).

Bartlett's Test is used to test if the *k* samples have equal variances (Snedecor & Cochran, 1983). Equal variances across samples are called homogeneity of variances. Bartlett's Test of Sphericity tests the null hypothesis that the correlation matrix is an identity matrix. Factor analysis cannot work if there is no relationship between variables. To find out if there was a relationship, a threshold value was chosen, called the

significant level at $p < 0.05$. Very small values of significance (below 0.05) indicate a high probability that there are significant relationships between variables, whereas higher values (0.1 or above) indicate the data is inappropriate for factor analysis. The KMO and Bartlett tests are shown in Table 4.5

Table 4.5: KMO and Bartlett's Test Results

Variables	Kaiser-Meyer-Olkin of sampling adequacy	Barlett's test of Sphericity approx Chi-square	df	Sig.
Competency	0.849	764.317	45	0.000
Role profile	0.762	259.294	21	0.000
Work ethics	0.839	418.516	45	0.000
Working condition	0.774	325.184	36	0.000
Students' satisfaction	0.796	305.332	45	0.000

As shown in the Table 4.5, the test on Kaiser-Meyer-Olkin of sampling adequacy and Bartlett's Test of Sphericity tests were deemed appropriate and viable for all the variables since KMO measures of sampling had reached the values of above 0.7 and the Bartlett's test of Sphericity was significant at $p < 0.05$. This test therefore concludes that Kaiser-Meyer-Olkin measure of Sampling Adequacy (KMO) and Bartlett's measure were adequate for factor analysis for each variable to be performed.

4.5 Reliability Analysis

Reliability is the ability of a test to consistently yield the same results when repeated measurements are taken under the same conditions (Neuman, 2000). Correlation coefficient can be used to assess the degree of reliability. If a test is reliable, it should show a high positive correlation (McLeod, 2007). Since reliability is a statistical coefficient, Cronbach Coefficient Alpha was computed to test the internal consistency and determine how items correlate among themselves. Internal consistency is a measure

of reliability used to evaluate the degree to which different test items that probe the same construct produce similar results (Phelan & Wren, 2006). The most acceptable alpha is 0.70 and above since values range from 0 to 1.

The Cronbach's Alpha values for competency was 0.803, role profile 0.703, work ethics 0.753, working condition 0.721 and students' satisfaction 0.711 as shown in Table 4.6

Table 4.6: Reliability Analysis

Variables	Cronbach alpha	Cronbach Based on Standardized items	Number of items after elimination
Competency	0.803	0.819	9
Role Profile	0.703	0.705	7
Work Ethics	0.753	0.763	9
Working Conditions	0.721	0.721	8
Students' Satisfaction	0.711	0.711	9

4.6 Research findings on Students' Satisfaction

This section discusses factor analysis, descriptive analysis and normality test for students' satisfaction.

4.6.1 Factor Analysis for Students' Satisfaction

Factor analysis is a statistical method used to describe variability among observed, correlated variables in terms of potentially lower number of unobserved variables called factors. It is used to reduce a large number of related variables to more manageable number before using them in other subsequent analysis such as correlation and regression. According to Yong and Pearce (2013) factor analysis operates on the notion that measurable and observable variables can be reduced to fewer latent variables that

share a common variance and are observable which is known as reducing dimensionality. In this study, factor analysis was performed using the principal components methods of analysis.

The dependent variable had ten (10) items from the original questionnaire. These items were subjected to extraction and one (1) item did not meet the recommended threshold of 0.4 and above. The item was therefore dropped and was not considered for further subsequent analysis. The item was: *Do students complain about adjunct faculty (-0.408).* The results for this variable are illustrated on Table 4.7.

Table 4.7: Rotated Factor Analysis for Students' Satisfaction

Component matrix	**Component**
Content delivery	.502
Subject relevancy	.470
Currency of the subject material that they teach	.597
Planning of lessons	.575
Creativity in teaching	.536
Use of student-centered teaching methods	.489
Application of new teaching strategies	.656
Provision of opportunities for out of class experiences	.562
Coverage of Syllabus	.502
Do students complain about adjunct faculty	***-.408****

* Item dropped

4.6.2 Content Delivery

The study aimed at establishing respondents' level of satisfaction with content delivery of outsourced adjunct faculty. Majority, 33.2% of the respondents held that they are moderately satisfied with adjunct faculties' content delivery, 27.6% satisfaction level was good, 26.4% very good, 11.2% poor and 1.6% excellent as shown in Table 4.8.

In schools and colleges, it is widely emphasized that the content should be delivered in an appropriate method that will make it easy for students to comprehend (Suarman, 2015). In this study finding, the respondents indicated that the content delivery of adjunct faculty was moderate, that is, it ranges between 21-40%. This is below average an implication that how adjunct faculty pass information is not up to standard.

4.6.3 Subject Relevancy

The study sought to establish respondents' level of satisfaction with subject relevancy of outsourced adjunct faculty. Majority, 33.6% of the respondents indicated very good, 27.2% were moderately satisfied, 24.4% said good, 7.6% said poor and 7.2% said excellent as shown in Table 4.8.

According to Ball, Thames & Phelps (2012), a teacher needs more than just an understanding of the content they teach; they need to be more than experts in their field. To instigate relevancy in subject matters, adjunct faculty must carry out research. Research, whether library or field, determines the quality of teaching. In this study, the respondents level of satisfaction with adjunct faculty subject relevancy was rated very good (61-80%) an indication that adjunct faculty carry out research. Whatever they teach is taken by respondent to be relevant implying that it is useful information that students' can utilize in their future careers.

4.6.4 Currency of Subject Materials

The study sought to assess the respondents' level of satisfaction on the currency of the subject materials adjunct faculties teach. Majority 31.6% of the respondents were moderately satisfied, 28% rated them as good, 23.6% said very good, 8.8% rated them as excellent and 8% rated it poor as shown in Table 4.8.

This findings conform to Makokha (2015) study which noted that majority of lecturers would use yellowed notes and rehearsed power-point presentations they prepared years in advance. That notwithstanding, to teach all students according to today's standards,

lecturers need to understand subject matter deeply and flexibly so that they can help students map their own ideas, relate one idea to another and re-direct their thinking to create powerful learning (Solis, 2009). The respondents' rate of satisfaction with outsourced adjunct faculties' currency of the subject materials was rated moderate that is 21-40%, which is below average. This implies that they use outdated materials to teach students. This will translate to below average performance at college and workplace.

4.6.5 Planning of Lessons

The study aimed at establishing respondent's level of satisfaction with lesson planning by the adjunct faculty. Majority, 30% of the respondents rated it moderate, 28.8% very good, 26% good, 9.6% and 5.6% excellent as shown in Table 4.8.

It is widely emphasized in schools, colleges and universities that the lesson should be well planned which means the content should be delivered in a smart manner and appropriate pace (Suarman, 2015). The aim of lesson planning is also to avoid students being overwhelmed with information (Marzano, 2007). From this findings, adjunct faculties planning of lesson was graded as moderate, that is, 21-40%, which is far below average. As Marzano (2007) study noted, lesson planning aims at avoiding students being overwhelmed with information. In this study, the outsourced adjunct faculties were noted to lack lesson planning skills an indication that their lessons are not run appropriately.

4.6.6 Creativity in Teaching

The study required respondents to rate adjunct faculty teaching creativity. Majority 31.2% of the respondents rated them as very good, 27.2% rated them as moderate, 22.4% as good, 10% as excellent and 8.8% as poor as shown in Table 4.8.

According to Suarman (2015), lecturer should use impressive and creative approaches that will ensure effective and smooth lectures in addition to meaningful lesson. Choi *et al.* (2014) also emphasized that, clarity of presentation, teaching creativity and clarifying

learning outcomes are significantly related to student's satisfaction positively. In this study, the respondents' rated adjunct faculties teaching creativity as very good 61-80%. This could be associated with their rich level of experience from the outside world.

4.6.7 Teaching Methods

The study required respondents to rate adjunct faculty's use of student-centered teaching methods. Majority, 38.4% of the respondent rated it as moderate, 27.2% rated it as good, 20.8% as very good, 10.8% as poor and 2.8% as excellent as shown in Table 4.8.

Student-centered teaching approach is where students take much more active role such as engaging in discussion with their teacher and peers (Curee, 2012). Student-centered instruction focuses on skills and practices that enable lifelong learning and independent problem-solving (Curee, 2012). It is an approach that has been found to be more sensitive to contextual effects (Postareff *et al.*, 2007).

The findings observed that adjunct faculty's use of student-centered teaching methods was rated moderate, that is, between 21-40%, an indication that adjunct faculty, rarely engage the students in their classes. They use teacher-centered approach to learning where the lecturer does most of the talking and the students work, mostly individually, on the tasks and activities provided to them by the lecturer maybe in the text-books.

4.6.8 Application of New Teaching Strategies

The study required respondents to rate adjunct faculty's application of new teaching strategies. Majority, 30.8% of the respondents rated it as moderate, 26.4% rated it as very good, 24.4% rated it as good, 9.6% rated it as poor and 8.8% rated it as excellent as shown in Table 4.8.

Lecturers should use active and collaborative teaching techniques (Umbach, 2008). Some of these techniques include; process oriented lessons, guided inquiry lessons and project based learning. Such methods involve students actively resulting in students

performing well in their academic work. It also makes it possible for all students to be part of the learning activities thus no one will feel left out. However, Schmidt (2010) indicated that adjunct faculties are more likely to use teaching techniques that are less time-consuming but also regarded as less effective. These techniques are likely to be ineffective and not likely to instill the requisite skills.

4.6.9 Bring out of Class Experiences

The study required respondents to rate adjunct faculties' provision of out of class experiences. Majority 31.2% of the respondents rated it as very good, 26% rated it as moderate, 22% rated it as good, 12.4% rated it as excellent and 8.4% rated it as poor as shown in Table 4.8.

Adjunct faculties were rated as very good (61-80%) in provision of out of class experiences. This findings conforms to Huang & Moon, 2009; Choi *et al.*, 2014) who noted that adjunct faculty bring a rich level of experience to universities. This means that students are usually given a chance to interact with the outside world henceforth imparted with problem solving skills, critical thinking skills among other benefits.

4.6.10 Syllabus Coverage

The study sought to establish whether outsourced adjunct faculties' covers the syllabus. Majority 32% of the respondents rated their syllabus coverage as moderate, 28.8% rated it as very good, 20.4% rated it as good, 9.6% rated it as excellent and 9.2% rated it as poor as shown in Table 4.8.

Course content coverage endeavors to inculcate certain skills and attitudes to learners through various topics. However, when this is poorly done, learners will be shortchanged in relevant skills and knowledge that such courses sort to impart

Table 4.8: Students' Satisfaction

Indicators	Poor 0-20%	Moderate 21-40%	Good 41-60%	Very Good 61-80%	Excellent 81-100%	Median	Mode
Content delivery	28 11.2%	83 33.2%	69 27.6%	66 26.4%	4 1.6%	3	2
Subject relevancy	19 7.6%	68 27.2%	61 24.4%	84 33.6%	18 7.2%	3	4
Currency of the subject	20 8.0%	79 31.6%	70 28.0%	59 23.6%	22 8.8%	3	2
Planning of lessons	24 9.6%	75 30.0%	65 26.0%	72 28.8%	14 5.6%	3	2
Creativity in teaching	22 8.8%	68 27.2%	56 22.4%	78 31.2%	26 10.4%	3	4
Use of student-centered teaching methods	27 10.8%	96 38.4%	68 27.2%	52 20.8%	7 2.8%	3	2
Application of new teaching strategies	24 9.6%	77 30.8%	61 24.4%	66 26.4%	22 8.8%	3	2
Provision of out of class experience	21 8.4%	65 26.0%	55 22.0%	78 31.2%	31 12.4%	3	4
Coverage of Syllabus	23 9.2%	80 32.0%	51 20.4%	72 28.8%	24 9.6%	3	2

4.6.11 Respondents' view on how to Improve Students' Satisfaction

The study sought respondents' views on what can be done to improve students' satisfaction. Fourteen (5.6%) respondents suggested that adjunct faculty be acknowledged to feel as part of the institution. Eleven (4.4%) respondents suggested timely payment since adjunct faculty lack commitment especially when not paid in time. Eleven (4.4%) requested the university to provide them with pedagogical trainings to improve their teaching skills and Majority, 24 (8.6%) appealed to universities to select adjunct faculties based on qualification, experience and flexibility. The study findings are as shown in Table 4.9.

Table 4.9: How to Improve Students' Satisfaction through adjunct faculty

Respondents views	Freq	%
Acknowledge their work and make them feel part of the institution	14	5.6
Timely payment since they lack commitment especially when not paid in time	11	4.4
Organize timetable in their favor and early appointment for easy preparation	2	0.8
Provide pedagogical training to equip them with teaching skills	11	4.4
Proper induction of adjunct faculty on semester to semester basis	3	1.2
Strict supervision from the university on their class attendance	8	3.2
Universities to select adjunct faculties based on qualification, experience and flexibility	24	8.6
Limit their workload to one or two universities	3	1.2
Encourage them to give consultation to students	8	3.2
University to demand from them that they cover the syllabus	5	2.0
Involve them in departmental meetings and decision making	3	1.2
During allocation, ensure to match subject to lecturer	2	0.8
Vetting to be done before appointment	13	5.2
They should stop looking for sexual favors from female students	6	2.4
Allow students participate in class	3	1.2
Clear disciplinary mechanism put in place	3	1.2
Create a conducive working environment for them	1	0.4
They should act professionally in all their endeavors	7	2.8
Provide them with adequate teaching materials	2	0.8
Total	**148**	**59.2**

Attaining students' satisfaction is one of the most critical objectives in all institutions of higher learning (Long *et al.*, 2013). Institutions that fail to attain students' satisfaction will definitely affect their reputation and students' intake in future. Dissatisfied students may also have their academic performance affected (Long *et al.*, 2013). Customers are satisfied when the service fits their expectations, or very satisfied when the service is beyond their expectation or completely satisfied when they receive more than they expect (Bettiger & Long, 2006). If the respondents view on how to increase students' satisfaction in public universities in Kenya through adjunct faculty is to be considered, then university management has a lot to execute in regard to outsourcing adjunct faculty.

4.6.12 Homoscedasticity test

A Homoscedasticity test was done. Heteroscedasticity refers to a phenomenon where data violates a statistical assumption when homoscedasticity is violated. It can lead to an increased type I error rates or decreased statistical power because it can affect substantive conclusion. Outliers test is as shown in Figure 4.1.

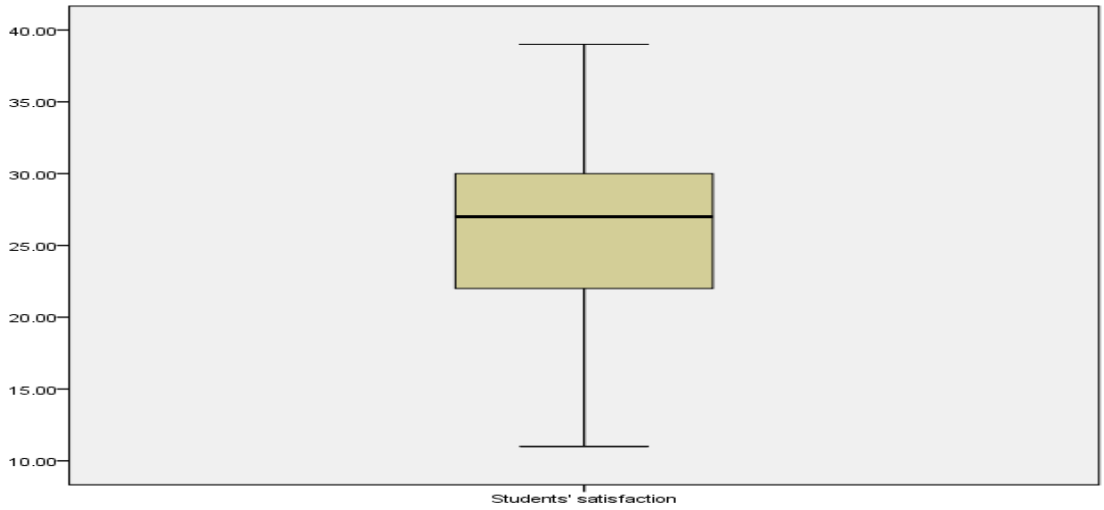

Figure 4.1: Outliers

As shown in Figure 4.1, all outliers were removed to ensure homoscedasticity.

4.6.13 Normality Test for Students' Satisfaction

According to Pallant (2005), an assessment of the normality of the dependent variable is a prerequisite condition in multiple linear regression analysis. It was necessary to carry out the normality test since the statistical procedures used in the study including correlations, regression and t-test were based on the assumption that the data follows a normal distribution.

A normality test is used to determine whether sample data has been drawn from a normally distributed population. It determines if a data set is well-modeled by a normal distribution and to compute how likely it is for a random variable underlying the data set to be normally distributed. According to Child (1990), if the dependent variable is not normally distributed, then there would be problems in the subsequent statistical analysis until the variable assumes normality. In other words, if the dependent variable is not normally distributed then normality has to be sought before proceeding to check whether the dependent variable has any effect on the independent variables. Graphical interpretation has an advantage of allowing good judgment to assess normality in situations where numerical tests might be over or under sensitive (Pallant, 2005). In this study, the normality distribution of data was tested using Shapiro-Wilk test, histogram and Q-Q plot.

Shapiro-Wilk normality test was done to determine whether there was a normal distribution of the sampled population. Shapiro-Wilk test is used to decide if a sample comes from a population with a specified distribution or to detect departures from normality (Shapiro & Wilk, 1965). If the significant value of the Shapiro-Wilk Test is greater than 0.05 the data is normal (Rozali & Wah, 2011). The test for Shapiro-Wilk is as shown in Table 4.10.

The hypotheses under consideration were:-

H_0: Data is normally distributed

H_1: Data is not normally distributed

Table 4.10: Shapiro-Wilk Test of Normality

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Students' satisfaction	.066	250	.200	.990	250	.101

The findings indicate that p values for Kolmogorov-Smirnov and Shapiro-Wilk are above 0.05. This therefore implies that the data is normally distributed and therefore fail to reject the null hypothesis.

Further, a histogram was plotted to determine whether the population was normally distributed. For a normal distribution, the histogram should have the approximate shape of a normal curve. The findings are as shown in Figure 4.2

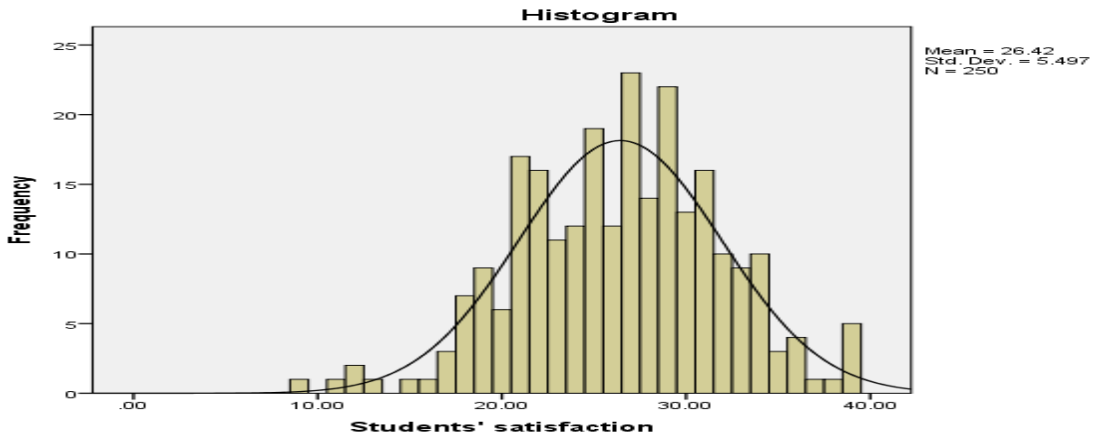

Figure 4.2: Histogram for Students' Satisfaction

The histogram for dependent variable shows a normal distribution with more scores occurring at the centre. It has a mean of 26.42 with a standard deviation of 5.497. Having 39 as the maximum and 9 as the minimum, the mean is at the centre an implication that the data for dependent variable was normally distributed.

Finally, a Q-Q plot was plotted. In the Q-Q plot, the scatters (dots) should lie as close to the line as possible with no obvious patterns coming away from the line for the data to be considered normally distributed. The Q-Q plot for dependent variable is as shown in Figure 4.3

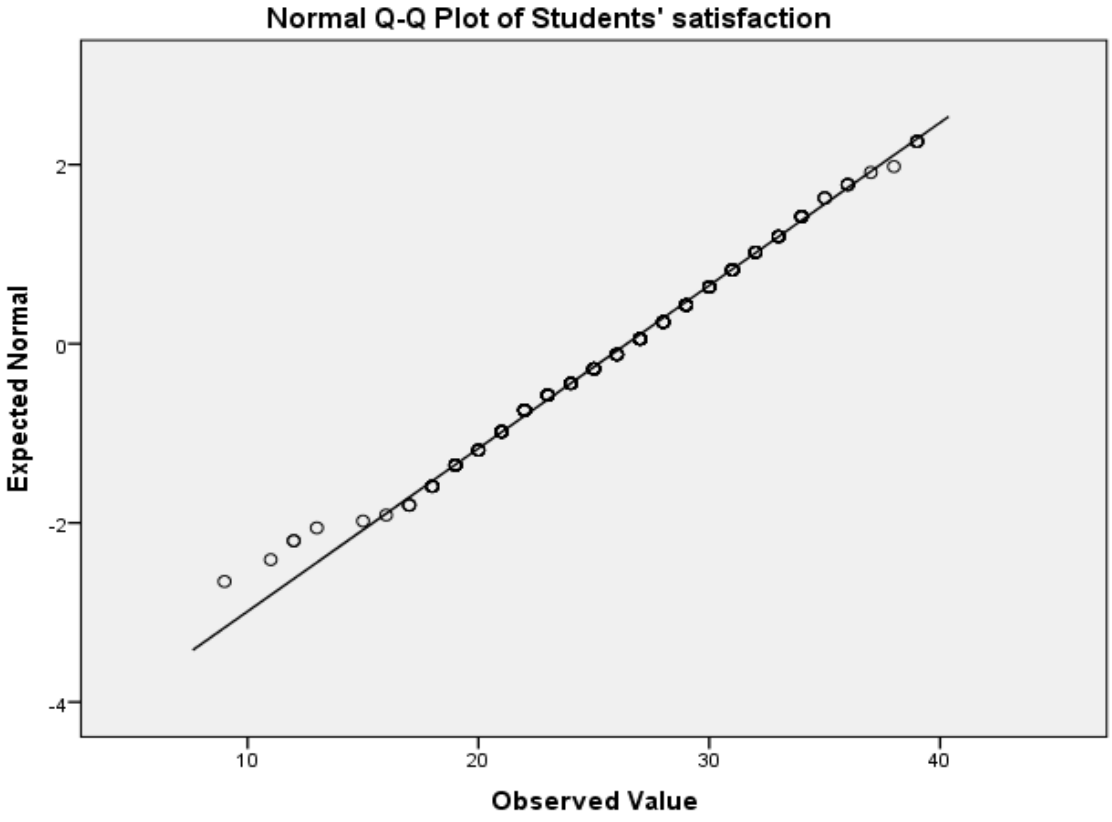

Figure 4.3: Q-Q Plot of Students' Satisfaction

The findings in Figure 4.3 observed values versus the expected normal values are randomly distributed along the line of best fit indicating that the dependent variable was normally distributed and therefore fit for regression to be performed. The data is normal and no cases of outliers were observed.

The three determiners of normality distribution; Shapiro-Wilk, histogram and Q-Q plot have shown the dependent variable-students' satisfaction was normally distributed and therefore fit for regression to be performed.

4.7 Research findings on Competency

This section discusses factor analysis, descriptive analysis and inferential analysis for the competence of outsourced adjunct faculty

4.7.1 Factor Analysis for Competency

The independent variable had ten (10) items from the original questionnaire. These items were subjected to extraction and one (1) item did not meet the recommended threshold of 0.4 and above. The item was therefore dropped and was not considered for further subsequent analysis. The item was: *Adjunct faculty have positive attitude towards teaching (0.332).* The results for this variable are illustrated on Table 4.11

Table 4.11: Rotated Factor Analysis for Competency

Component matrix	Component
Adjunct faculty have thorough knowledge on the subject content	.668
They are qualified to and specialist in the courses that they teach	.612
They have adequate (three and above years) teaching experience	.607
They are professionally trained on how teaching and learning takes place	.355
They have positive attitude towards teaching	***.332****
They have published books and articles	.499
They create a classroom environment that leads to higher order thinking and learning	.645
How can you rate the teaching skills of Adjunct faculty	.789
How can you rate their communication skills	.747
How can you rate the competency level	.780

*** Item dropped**

4.7.2 Qualification

The study sought to establish the academic qualification of adjunct faculty. Majority, 65.2% of the respondents indicated that of the adjunct faculties have masters' degrees. Twenty two percent held that they have PhD and 12.8% point out that they have bachelors' degree. The findings are as shown in Table 4.12

Table 4.12: Academic qualification of Adjunct Faculty

Category	Bachelors Degree	Masters Degree	Doctorate degree	Total
Student	29	107	39	175
HoD	3	50	14	67
DQA	0	6	2	8
Total	32	163	55	250
Percent	12.8%	65.2%	22.0%	100%

The findings indicate that majority of outsourced adjunct faculty have masters degree and therefore qualified to teach in public universities in Kenya. This is in accordance with the CUE (2014) guidelines which stated that adjunct faculty should be drawn from industry, public sector or private sector locally and internally. They should be holders of an earned doctorate or equivalent degree qualifications in the relevant field from an accredited and recognized university or have a master's degree in the relevant field from accredited and recognized university.

4.7.3 Subject Competency

The study sought to establish the subject competency of outsourced adjunct faculty. Forty three point two percent agreed that adjunct faculty have subject competency, 15.2% strongly agreed, 22.4% disagreed, 5.2% strongly disagree and 14% neither agreed nor disagreed. Majority 57.4% of the respondents were affirmative that adjunct faculty have subject competency as shown in Table 4.13.

The results show that outsourced adjunct faculties have the requisite skills, knowledge and attitude important to transmit information and knowledge to the learners. This implies that students get their tutoring from capable academic staff. These findings contradict Adedoyin (2011) study which had observed that majority of the classroom teachers lack substantial subject matter, the knowledge of what to teach and how to teach the subject matter effectively. The competency in ones' discipline is paramount for all the university lecturers since they are not only required to teach the students on how to read and write but also how to tackle problems in their day-today endeavors.

4.7.4 Specialization

The research aimed at establishing if the outsourced adjunct faculties are qualified and specialist in the courses that they teach. those who agreed were 42.4%, 23.6% strongly agreed, 12.4% disagreed, 4% strongly disagreed and 17.6% neither agreed nor

disagreed. Majority 66% of the respondents were in agreement that adjunct faculties teach in the area of their specialization as shown in Table 4.13.

These findings show that majority 66% of the respondents agreed that adjunct faculties teach in their areas of specialization. Lecturers teaching in their areas of specialization imply that they are able to give details on what they are teaching. They are also able to link topics to outside world and ask questions that stray out of their lecture notes. These findings contradict Makokha's (2015) findings which indicated that majority of the lecturers' lecture subjects other than those that they graduated from with an effort to encourage them to read widely. Huston (2009) findings had also observed that instructors and professors teach courses and subjects that fall outside of their area(s) of expertise.

4.7.5 Experience

The study sought to establish whether outsourced adjunct faculty have three and above years of teaching experience. Thirty eight point four percent of the respondents agreed that adjunct faculty have three and above years teaching experience, 18.8% strongly agreed, 20% disagreed, 5.2% strongly disagreed and 17.6% neither agreed nor disagreed. Majority 57.2% of the respondents were in agreement that adjunct faculty have three and above years of teaching experience as shown in Table 4.13.

These findings conforms with CUE (2014), which states that a lecturer must have 3years working experience at university level or in research or in industry. CUE noted that on-the-job experience provides teachers with practical opportunities in which to build their expertise in teaching and classroom management. Further, average years of teaching experience are an indication of teachers' maturity and their long-term commitment to education (Rice, 2010). The findings noted that majority of adjunct faculties are experienced faculties that have the recommended (by CUE) number of years in teaching. This is an indication that they understand the technicalities of teaching and can therefore offer the required skills and knowledge required of a university student.

4.7.6 Professionally Trained

The study aimed at finding out if the outsourced adjunct faculties are professionally trained on how teaching and learning takes place. The 28% of the respondents disagreed, 22.8% strongly disagreed, 27.2% agreed, 12.4% strongly agreed and 9.6% neither agreed nor disagreed. Majority 50.8% disagreed that adjunct faculty are professionally trained on how teaching and learning takes place as shown in Table 4.13.

Koehler (2011) study observed that when one undergoes some form of pedagogical training, he/she is able to understand the cognitive, social and development theories of learning and how to apply them to students in a classroom. These are theories that drive teaching, including ideas about how students learn, what they should learn and how teachers can enable students' learning (Suzanne & Penelope, 2006). At the same time, professional training on teaching equips the teacher with skills to effectively facilitate the development of higher order thinking skills to students through appropriate methodology (Bunoti, 2009). Without these skills and competencies, the students are not empowered to apply and transfer knowledge so as to transform themselves and society as is their wish (Bunoti, 2009). The findings may imply that adjunct faculty employs presumption in their teaching. They are not competent teacher which may influence their lesson delivery negatively.

4.7.7 Publications

The study sought to assess whether adjunct faculty publish book and articles from research in their line of specialization: 34% of the respondents agreed that they do, 11.6 strongly agreed, 21.2% disagreed, 10.4% strongly disagreed and 22.8% neither agreed nor disagreed. Many respondents, 45%, were in agreement that most adjunct faculty publish books and articles as Table 4.13 illustrate.

These findings contradict Mageto (2010) study which noted that adjunct faculty's moonlighting affects their research. Brown (2014) also noted that adjunct faculties have devoted little attention to research and publishing. Kilonzo (2015) also observed that adjunct faculty moonlighting eats into adjunct faculties' research time. Based on the study findings, adjunct faculties do publish which in turn means they deliver current information. They are thus well equipped with the updated information in subjects taught.

4.7.8 Management Skills

The study sought to establish if adjunct faculty is able to create a classroom environment that leads to higher order thinking and learning. The 34.4% of the respondents agreed, 22% strongly agreed, 19.6% disagreed, 3.6% strongly disagreed and 20.4% neither agreed nor disagreed. Majority 56.4% of the respondents were in agreement that adjunct faculty creates a classroom environment that leads to higher order thinking and learning as shown in Table 4.13.

The research findings noted that outsourced adjunct faculties create a classroom environment that leads to higher order thinking and learning. This implies that they are able to control their students in class. They have command in classes and are able to deliver their lessons in an organized manner. Classroom management skills is a key factor to students satisfaction reason being, it creates a classroom environment that leads to higher order thinking and learning (Choy *et al.*, 2014). A chaotic classroom that lacks boundaries can prevent students from being engaged in the learning activity and process (Barbetta *et al.*, 2006).

Table 4.13: Competencies of outsourced Adjunct Faculties

Indicators	SD	D	N-A/D	A	SA	Median	Mode
Adjunct faculty have thorough knowledge on the subject content	13 5.2%	56 22.4%	35 14.0%	108 43.2%	38 15.2%	4	4
They are specialist in the courses that they teach	10 4.0%	31 12.4%	44 17.6%	106 42.4%	59 23.6%	4	4
They have adequate (three and above years) working experience	13 5.2%	50 20.0%	44 17.6%	96 38.4%	47 18.8%	4	4
They are professionally trained on how teaching and learning takes place	57 22.8%	70 28.0%	24 9.6%	68 27.2%	31 12.4%	2	2
They have published	26 10.4%	53 21.2%	57 22.8%	85 34.0%	29 11.6%	3	4
They create a classroom environment that leads to higher order thinking and learning	9 3.6%	49 19.6%	51 20.4%	86 34.4%	55 22.0%	4	4

4.7.9 Skills and Competence shortage

The study sought to establish which skills and competencies that adjunct faculties lack. Majority 29.2% indicated that they have poor communication skills, followed by teaching skills 22%, then class management skills 21.2%, then research skills 20% and finally subject-knowledge competency 12.8% as shown in Table 4.14.

Table 4.14: Skills and Competence Shortage

Skills	Frequency	Percentage
Teaching skills	55	22.0
Communication skills	73	29.2
Class management skills	53	21.2
Subject-knowledge competency	32	12.8
Research skills	50	20.0

Students' performance and satisfaction is widely influenced by lecturers' competencies and skills (Choi *et al.*, 2014). Achievement is likely to be realized when students receive instructions from lecturers with good teaching skills and competencies (Nadeem *et al.*, 2011). These skills and competencies include but not limited to subject knowledge competency, teaching creativity, clarity of presentation (communication skills), interaction with students (class-management skills), clarifying learning outcomes, class activity and lecture notes (research skills) are significantly related to student's satisfaction positively (Choi *et al.*, 2014). Communication skill is paramount in transmitting information from the sender to the receiver. When the message is not transmitted to the receiver properly, there is a possibility of miscommunication among many other vices.

4.7.10 Regression Analysis Results on Competency and Students' Satisfaction

A simple linear regression was performed at 95% confidence level. To determine how well competency can predict students' satisfaction, a regression equation was established as follows:-

$$y = \alpha_1 + \beta_1 X_1 + \varepsilon$$

Where y is students' satisfaction, X_1 is competency, β_1 is coefficient of correlation and ε is the residual.

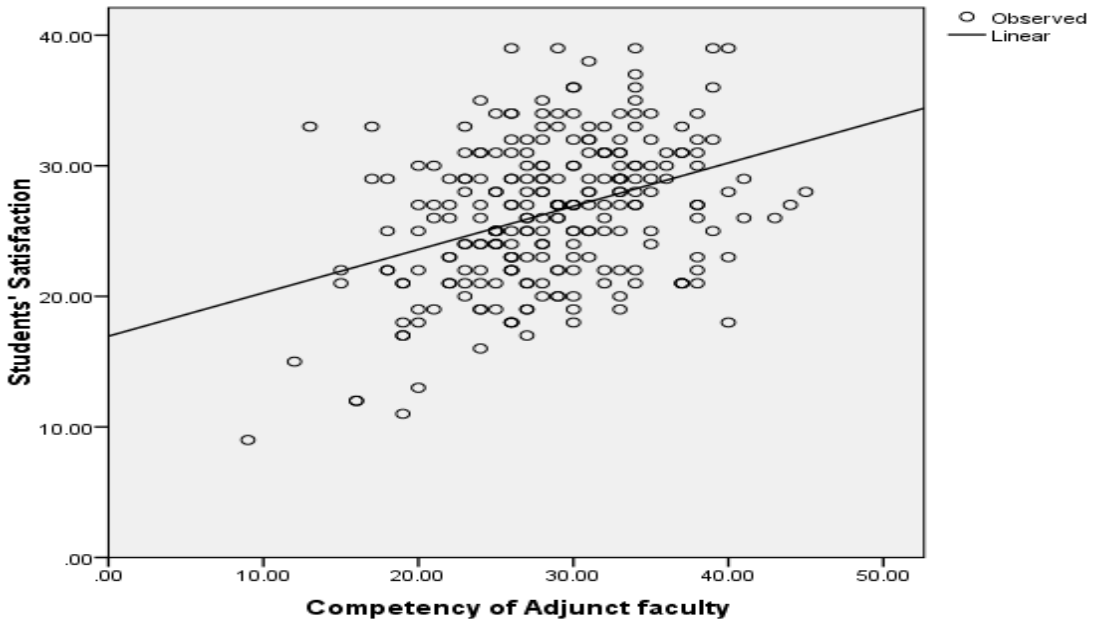

Figure 4.4: Regression line for competency

Figure 4.4 indicates that there was a positively sloped regression line between competency of adjunct faculty and the students' satisfaction satisfying the assumption of linearity in a simple regression model.

Table 4.15: Goodness of Fit

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
.373	.139	.136	5.10995	2.174

As shown in Table 4.15, the R squared indicates the coefficient determination; that is, it explains how much students' satisfaction can be explained by competency of the adjunct faculty. In this case, 13.9% of the total variation can be explained by linear relationship between competency and students' satisfaction. Tabachnick and Fidell (2004) however recommend the use of adjusted R square since the R square tends to overestimate, in this case, 13.6% explains the relationship between competencies on students' satisfaction. This implies that only 13.6% can be explained by competencies of adjunct faculty while the remaining 86.4% can be explained by the other variables in the study.

The study also sought to establish whether the study has positive, negative or non autocorrelation. The findings noted Durbin-Watson of 2.17 an indication that there is no autocorrelation. Durbin-Watson statistics tests for autocorrelation residual from an ordinary least square regression (Durbin & Watson, 1950). It is always between 0 and 4 (Gujarati & Porter, 2009). A value within 2 implies that there is no autocorrelation (Durbin & Watson, 1951). Values approaching 0 indicate positive autocorrelation and values towards 4 indicate negative autocorrelation (Gujarati & Porter, 2009). Autocorrelation is the degree of similarity between a given time series and a lagged version of itself over successive time interval (Gujarati & Porter, 2009).

To test hypothesis whether competence of adjunct faculty has no significant influence on students' satisfaction in Public Universities in Kenya, an F-test was done as shown in Table 4.16.

Table 4.16: ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	1049.385	1	1049.385	40.189	.000
Residual	6475.671	248	26.112		
Total	7525.056	249			

Table 4.16 shows the test of significant for the regression model in predicting the outcome variables. The regression model was significant at $p < 0.05$ with an F = 40.189 to predict the outcome variable. Since the null hypothesis tested was that the regression model was not statistically significant, we then reject the null hypothesis and conclude that competencies of adjunct faculty has influence on students' satisfaction.

To determine the regression equation, t-test was performed as shown in Table 4.17.

Table 4.17: Determining the Regression Equation

	Unstandardized Coefficients		**Standardized Coefficients**	**T**	**Sig.**
	B	**Std. Error**	**Beta**		
(Constant)	16.951	1.529		11.087	.000
Competency	.332	.052	.373	6.339	.000

Table 4.17, provides information needed to predict students satisfaction from competencies of adjunct faculty. Both the constant and competency contribute significantly to the model at $p < 0.05$. Using the simple linear regression equation:-

$$y = \alpha_1 + \beta_1 X_1$$

Then α is the constant represented by 16.951 and β is represented by 0.332

Students' satisfaction = 16.951 + 0.332 competency

$$Y = 16.951 + 0.332\, X_1$$

This means that for every unit increase in competency, there is a 0.332 increase in students' satisfaction.

To test whether the regression coefficient for competency was significantly different from zero, a t-test was determined at 5% level of significance.

H_0: $\beta_1 = 0$; regression coefficient of competency was equal to zero

H_1: $\beta_1 \neq 0$; regression coefficient of competency was not equal to zero

β_1 is the regression coefficient of competency

The coefficient in Table 4.17 indicate that the calculated t-value for competency = 6.339 and is statistically significant at $p<0.05$. This therefore indicates that the null hypothesis should be rejected and the conclusion to be competency of adjunct faculty has significant positive influence on students' satisfaction.

Comparison was also done between t-calculated and t-critical to make decisions whether to reject or fail to reject the hypothesis.

1. H_0: $\beta_1 = 0$

   Vs

   H_1: $\beta_1 > 0$

2. $t\text{-}_{calculated}$ = take Unstandardized Coefficients β_1 divide by std error

   $t\text{-}_{calculated} = \frac{\beta}{\varepsilon} = \frac{0.332}{0.052} = 6.3846$

3. $t\text{-}_{critical} = t_{n-2}^{(1-\alpha/2)}$

   $t_{n-2} = t_{n-k-1}$ ---------- t_{n-1-1} -------- n-2 = 258-2 ---------- n=256

   $1-\alpha/2$ ---------- $1-\frac{0.05}{2} = 1-0.025 = 0.975$

   $t_{256}^{(0.975)} = 1.96$

Since t-calculated is greater than t-critical, it was concluded that competence has positive and significant effect on students' satisfaction. These findings are supported by Nadeem *et al.* (2011) who noted that students achievement will likely be realized when

students receive instructions from lecturers with good teaching competencies. Metzler and Woessmann (2012) also recommended that lecturers to develop strong teaching competencies in order to deliver quality service. These competencies includes but not limited to knowledge on subject, clarity of presentation, interaction with students, teaching creativity, clarifying learning outcomes, class activity and lecture notes are significantly related to student's satisfaction positively (Nadeem *et al.,* 2011).

4.8 Results Analysis on the Influence of Role Profile

This section discusses factor analysis, descriptive analysis and inferential analysis for role profile.

4.8.1 Factor Analysis for Role Profile

The independent variable had seven (7) items from the original questionnaire. These items were subjected to factor analysis and all of them met the recommended threshold of 0.4 and above. They were thus considered for further subsequent analysis. The results of this variable are illustrated on Table 4.18

Table 4.18: Rotated Factor Analysis for Role profile

Component matrix	Component
Adjunct faculty are always available for their lectures	.595
They are readily available for consultation	.555
They assess students by giving at least two CATs and assignments	.643
They mark the CATs and assignments and give feedbacks	.696
Their teaching is informed by the latest researches	.698
They volunteer their services and expertise to the community surrounding the university	.516
They attend moderation of exams and departmental meetings	.490

4.8.2 Availability

The research sought to establish whether outsourced adjunct faculties are always available for the lectures: 33.6% of the respondents disagreed, 11.6% strongly disagreed, 30.8% agreed, 9.2% strongly agreed and 14.8% neither agreed nor disagreed. Majority 45.2% of the respondents did not agree that adjunct faculties are always available for their lectures as shown in Table 4.19.

A lecturer is supposed to teach, mentor, evaluate, research, committee involvement, and carry out community service (Porter & Umbach, 2000). Since universities do not have specified roles for adjunct faculty, then it implies that these faculties are required to carry out all the roles of a full time lecturer. However, the study noted that this faculty is not available for even the most important business in university, teaching. This implies that the students are denied their most important basic right.

4.8.3 Consultation

The study sought to determine whether adjunct faculties are readily available for consultation: 38.8% disagreed, 16.4% strongly disagreed, 20.4% agreed, 8.8% strongly agreed and 15.6% neither agreed nor disagreed. Majority 55.2% disagreed that adjunct faculties were readily available for consultation as shown in Table 4.19.

These findings agreed with Gudo *et al.* (2011) and Kyule *et al.* (2014) studies which noted that adjunct faculties are not readily available for consultation with students. These findings are also supported by Lumasia and Kiprono (2015) study which noted that adjunct faculty meets their students only once a week; probably when there is a class and no other time to discuss anything outside the classroom until the following week. Spending extra time with students increases their level of inquiry and intellectual interaction between them and their lecturers. Such interactions lend a hand in building students' knowledge and competencies on the content taught in class and its applicability in the outside world since some relevant matters arising from the content

can be clarified by the lecturer outside the class. When it is not done, then the students feel shortchanged and left out on this matter.

4.8.4 Assessment

The research sought to assess whether outsourced adjunct faculty give at least two CATs and assignments, mark and give feedback: 34.8% agreed, 26% strongly agreed, 17.6% agreed, 6.8% strongly agreed and 14.8% neither agreed nor disagreed that adjunct faculty assess students with at least two CATs and assignments. Thirty one point two percent agreed that they get the feedback, 22.8% strongly disagreed, 21.2% disagreed and 6.8% strongly disagreed. Majority 60.8% were in agreement that adjunct faculties assess them and 54% agreed that adjunct faculty mark and give feedback as shown in Table 4.19.

A lecturer is supposed to teach, mentor, evaluate, research, committee involvement, and carry out community service (Porter & Umbach, 2000). When outsourced adjunct faculty evaluates students and gives feedback, the lecturer is able to tell whether he/she is being understood or not. The students are also able to gauge themselves in relation to where they stand in terms of comprehension of knowledge and skills taught.

4.8.5 Research

The study aimed at establishing whether outsourced adjunct faculty teaching is informed by the latest researches: 38% of the respondents agreed, 16.8% strongly agreed, 21.2% disagreed, 6% strongly disagree and 18% neither agreed nor disagreed. Majority 54.8% were in agreement that adjunct faculty teaching is informed by the latest researches as shown in Table 4.19.

Research, whether library or field, determines the quality of teaching. Howard (2002) noted that research is not a process but a product which is publication. These publications become teaching tools and extend an institutions mission beyond the campus (Howard, 2002). These findings observed that adjunct faculties in public

universities in Kenya carry out research and teach from the latest researches an implication that students' get latest information from the faculty.

4.8.6 Community Service

The study sought to establish whether outsourced adjunct faculty volunteers their services and expertise to the community surrounding the university: 27.2% disagreed, 21.6% strongly disagreed, 23.2% agreed, 9.2% strongly agreed and 18.8% neither agreed nor disagreed. Majority 48.8% disagreed that adjunct faculty carry out community service/outreach as shown in Table 4.19.

Academic role according to Howard (2002) is a mix of three basic responsibilities namely; teaching, research and community outreach (service). There are two services, institutional and professional service. Community service is professional services which refers to work done to support one's academic discipline and involves activities such as serving in communities and boards of professional organizations, chairing sessions at national or international meetings. The study noted that adjunct faculties do not carry out community outreach an implication that they do not provide their professional competencies to the community for the wellbeing of the university. This may have a negative impact on the university.

4.8.7 Other Departmental Responsibilities

The study sought to establish if outsourced adjunct faculty attend exam moderation and departmental meetings: 28% of the respondent disagreed, 15.6% strongly disagreed, 24.8% agreed, 9.2% strongly agreed and 22.4% neither agreed nor disagreed. Majority 43.6% of the respondents disagreed that adjunct faculty attend exam moderation and departmental meetings as shown in Table 4.19.

As Howard (2002) indicated that lecturers should handle other responsibilities like institutional services namely administrative duties, committee work and students activities, majority of adjunct faculties do not. They neither attend examination

moderation nor departmental meetings. This implies that they may be inexperienced on how examinations are set and have no idea on what is happening in the department. This may impact students negatively because students will have substandard exam from this team who have no idea on what is current in the department.

Table 4.19: Role Profile

Indicators	SD	D	N A/D	A	SA	Median	Mode
Adjunct faculty are always available for their lectures	29 11.6%	84 33.6%	37 14.8%	77 30.8%	23 9.2%	3	2
They are readily available for consultation	41 16.4%	97 38.8%	39 15.6%	51 20.4%	22 8.8%	2	2
They assess students	17 6.8%	44 17.6%	37 14.8%	87 34.8%	65 26.0%	4	4
They mark and give feedbacks	17 6.8%	53 21.2%	45 18.0%	78 31.2%	57 22.8%	4	4
Their teaching is informed by the latest researches	15 6.0%	53 21.2%	45 18.0%	95 38.0%	42 16.8%	4	4
They volunteer expertise to the community	54 21.6%	68 27.2%	47 18.8%	58 23.2%	23 9.2%	3	2
They attend meetings	39 15.6%	70 28.0%	56 22.4%	62 24.8%	23 9.2%	3	2

4.8.8 Regression Analysis for Role Profile and Students' Satisfaction

Role profile influence students' satisfaction, regression analysis was done using the regression equation below:-

$$y = \alpha_2 + \beta_2 X_2 + \varepsilon$$

Whereby y is students' satisfaction, β_2 is the coefficient correlation, X_2 is role profile. The Figure 4.5 shows the linear relationship between role profile and students' satisfaction.

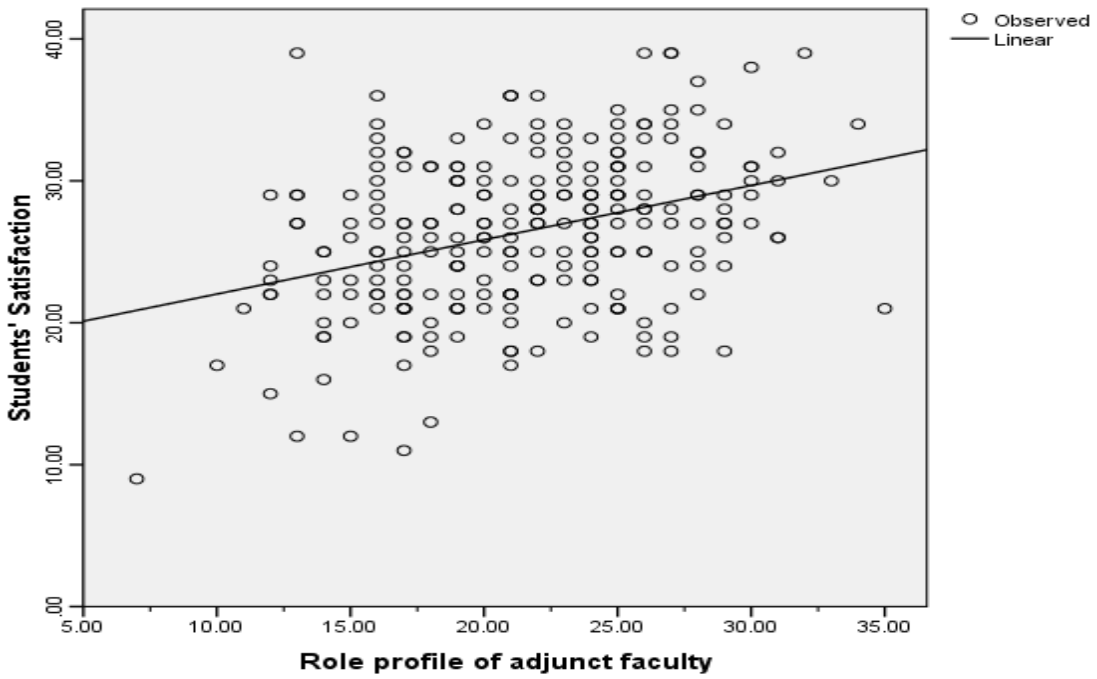

Figure 4.5: Regression Analysis for Role Profile

The Figure 4.5 indicates a positive linear relationship between role profile and students' satisfaction as indicated by the positively sloped regression line.

Table 4.20: Goodness of Fit

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
.359	.129	.125	5.14145	2.143

As shown in Table 4.20, the R squared indicates the coefficient determination; that is, it explains how much students' satisfaction can be explained by role profile of adjunct faculty. In this case, 12.5% of the total variation can be explained by linear relationship between role profile and students' satisfaction. This implies that only 12.5% can be explained by role profile while the remaining 87.5 % can be explained by the other variables in the study. The study findings also noted that Durbin-Watson was 2.14 an indication that there is no autocorrelation.

To test the hypothesis that role profile of adjunct faculty has no significant influence on students' satisfaction in Public Universities in Kenya, an F-test was done as shown in Table 4.21

Table 4.21: ANOVA

	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Regression	969.304	1	969.304	36.668	.000
Residual	6555.752	248	26.434		
Total	7525.056	249			

The Table 4.21 indicates the test of significance of the model in predicting the outcome variables. The regression model was significant at $p < 0.05$ with an F = 36.668 to predict the outcome variable. The null hypothesis tested was, role profile in regression model is not statistically fit to predict the outcome, students' satisfaction. Considering the findings, the F-test is statistically significant at $p < 0.05$. This therefore implies that role profile can predict the outcome students' satisfaction at $p < 0.05$ level of significant with a 95% confidence level.

To determine the regression equation, a t-test was performed as shown in Table 4.22

Table 4.22: Determining the Regression Equation

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	**Std. Error**	**Beta**		
(Constant)	18.200	1.397		13.032	.000
Role profile	.383	.063	.359	6.055	.000

Table 4.22, provides information needed to predict students satisfaction from role profile of adjunct faculty. Both the constant and role profile contribute significantly to the model at $p < 0.05$. Using the simple linear regression equation:-

$$y = \alpha_2 + \beta_2 X_2$$

Then α is the constant represented by 18.200 and β is represented by 0.383

Students' satisfaction = 18.200 + 0.383 role profile

$$Y = 18.200 + 0.383\, X_2$$

This means that for every unit increase in role profile, there is a 0.382 increase in students' satisfaction.

To test whether the regression coefficient for role profile was significantly different from zero, a t-test was determined at 5% level of significance.

That is,

H_0: $\beta_1 = 0$; regression coefficient for role profile was equal to zero

H_1: $\beta_1 \neq 0$; regression coefficient for role profile was not equal to zero

β_1 is the regression coefficient of role profile

The coefficient in Table 4.22 indicate that the calculated t-value for role profile = 6.055 and is statistically significant at p value 0.000. This therefore indicates that the null hypothesis should be rejected and the conclusion to be role profile of adjunct faculty had significant positive influence on students' satisfaction.

Further, comparison was done between t-calculated and t-critical to make decisions whether to reject or fail to reject the hypothesis.

1. H_0: $\beta_1 = 0$

   Vs

   H_1: $\beta_1 > 0$

2. $t\text{-}_{calculated}$ = take Unstandardized Coefficients β_1 divide by std error

   $t\text{-}_{calculated} = \frac{\beta}{\varepsilon} = \frac{0.383}{0.063} = 6.079$

3. $t\text{-}_{critical} = t_{n-2}^{(1-\alpha/2)}$

   $t_{n-2} = t_{n-k-1}$ ---------- t_{n-1-1} -------- n-2 = 258-2 ---------- n=256

   $1-\alpha/2$ ---------- $1-\frac{0.05}{2} = 1-0.025 = 0.975$

   $t_{256}^{(0.975)} = 1.96$

Since t-calculated is greater that t-critical, it was concluded that role profile has positive and significant effect on students' satisfaction. These findings conforms with (Gudo *et al*, 2011; Lumasia & Kiprono, 2015; Howard, 2002; Kilonzo, 2015) study which emphasized on the importance of adjunct-faculties' fulfilling all the roles of a lecturer

that is teaching, evaluation, consultation and research. Fulfillment of this role were said to bring about students' satisfaction.

4.9 Research findings on Work Ethics

The section discusses factor analysis, descriptive analysis and inferential statistic for work ethics

4.9.1 Factor Analysis for Work Ethics

The independent variable had ten (10) items from the original questionnaire. These items were subjected to extraction and two (2) items did not meet the recommended threshold of 0.4 and above. The items were therefore dropped and were not considered for further subsequent analysis. The items were: *Adjunct faculty remain in class for sufficient time (0.167)* and *how often do their other workloads and profession affect their preparedness and class attendance (-0.212).* The result of this variable are illustrated on Table 4.23

Table 4.23: Rotated Factor Analysis for Work Ethics

Component matrix	Component
Adjunct faculty prioritize their teaching responsibilities	.531
They demonstrate commitment to the teaching profession	.673
They are punctual for lectures	.424
They come to class fully prepared	.658
They remain in class for sufficient time	***.167****
They interact with students professionally	.645
They are reliable lecturers	.687
They mark the CATs and exams Professionally	.675
How can you rate their level of commitment to teaching	.658
How often do their other workloads and profession affect their preparedness and class attendance	***-.212****

*Items dropped

4.9.2 Priority

The study sought to establish whether outsourced adjunct faculty prioritize their teaching responsibilities: 32.4% of the respondents disagreed, 15.2% strongly disagreed, 27.6% agreed, 9.6% strongly agreed and 15.2% neither agreed nor disagreed. Majority 47.6% disagreed that adjunct faculty prioritize teaching responsibilities as shown in Table 4.24

These findings conform to Feldman and Turnley (2001) study which indicated that adjunct faculty have other means of employment and thus may treat their courses/part-time responsibility as of secondary importance. In fact, adjunct faculties are not loyal to one institution; they know little or nothing about an individual university's missions, policies, procedures and programs (Feldman & Turnley, 2001). Adjunct faculties are attached to the universities because of university understaffing; however, these faculties have other places where they are permanently employed where their mind and priorities are. To them, teaching responsibility is a secondary priority. This may influence students' satisfaction negatively because this faculty will not mind missing a class like they would care about losing their permanent employment.

4.9.3 Commitment Level

The research aimed at determining adjunct faculty's commitment to the teaching profession: 32.0% of the respondents disagreed, 15.6% strongly disagreed, 21.6% agreed, 6.0% strongly agreed and 24.8 neither agreed nor disagreed. Majority 47.6% of the respondents disagreed that adjunct faculty demonstrate commitment to the teaching profession. In fact, majority 50.8% of respondents rated adjunct faculty commitment level as moderate as shown in Table 4.24.

These findings conform to Bryson study in (Okhato & Wanyoike, 2015) which had observed that employees on temporary contracts are more likely to be unable to apply their full range of commitment and skills in positions that do not fully utilize their qualifications and experience. Another study by Connelly and Gallagher (2004) had also

observed that adjunct faculty are less committed to their employers and perform at lower levels than their more permanent workers. This is owing to the fact that adjunct faculties have part-time commitment to teaching (Okhato & Wanyoike, 2015). The findings show that majority of outsourced adjunct faculties are not committed to their work. It means that they are unable to serve the students and the university effectively. This does not guarantee quality service to the students.

4.9.4 Punctuality

The study sought to assess whether outsourced adjunct faculties are punctual for lecturers: 32.8% disagreed, 12.8% strongly disagreed, 28% agreed, 11.6% strongly agreed and 14.8% neither agreed nor disagreed. Majority 45.6% disagreed that adjunct faculties are punctual for classes as shown in Table 4.24.

These findings conforms to a survey carried out by Commission for University Education which started that adjunct faculties come to class late and often exhausted (Gudo *et al.*, 2011). This is owing to the fact that most of them lecture in more than five campuses in one semester and teach more than 36 hours in a week not counting other responsibilities squeezed in between (Okhato & Wanyoike, 2015; Brown, 2014). This makes them get late while travelling from one station to the other. Failure to arrive in class on time implies that adjunct faculty steals the students study time. Syllabuses are therefore not competed, the right and full knowledge is thus not delivered and the end results are half baked graduates.

4.9.5 Preparedness

The research sought to establish whether adjunct faculty come to class fully prepared: 31.6% agreed, 22% strongly agreed, 21.6% disagreed, 7.2% strongly disagreed and 17.6% neither agreed nor disagreed. Majority 53.6% of the respondents agreed that adjunct faculty come to class fully prepared as shown in Table 4.24

These findings contradicts (Brown, 2014; Mageto, 2010) study which noted that adjunct faculty have daunting workloads which leaves them with unbearable fatigue and worn out barely in a position to up-date their lecture notes. Bunoti (2009) had also observed that some lecturers do not prepare notes instead they download articles and assign text book chapters for students to make copies. Lecturer's preparation is part of his/her teaching load and when it is well done, students get the latest development in an academic discipline.

4.9.6 Professionalism

The research sought to determine whether outsourcing adjunct faculty interact with students professionally: 40.8% disagreed, 18.8% strongly disagreed, 18.8% agreed and 6.4% strongly agreed and 15.2% neither agreed nor disagreed. Majority 59.6% respondents disagreed that adjunct faculty interact with students' professionally as shown in Table 4.24

These findings conforms to (Bunoti, 2009) study which noted that unprofessional behaviors are common among faculties and other staff resulting in rudeness and use of threatening abuse of students. The findings have noted that unprofessional behavior among adjunct faculties are there hampering good students' – lecturers' relationship in public universities in Kenya an implication that teaching and learning does not take place efficiently.

4.9.7 Reliability

The study sought to establish whether outsourced adjunct faculties are reliable lecturers: 28.4% agreed, 18.8% strongly agreed, 26.8% disagreed, 6.4% strongly disagreed and 19.6% neither agreed nor disagreed. Majority 47.2% were affirmative that adjunct faculties are reliable as shown in Table 4.24.

These findings contradicts (Kyule *et al.,* 2014) study which observed that these employees on temporary contracts are more likely to be unable to utilize the full range of their skills. They are not reliable to give their all in all in the classrooms.

4.9.8 Examine Professionally

The study sought to assess whether outsourced adjunct faculty mark the CATs and examinations professionally, 28.8% of the respondents agreed, 22.8% strongly agreed, 22.0% disagreed, 8.4% strongly disagreed and 18% neither agreed nor disagreed. Majority 51.6% respondents were in agreement that adjunct faculties mark CATs and Examinations professionally as shown in Table 4.24.

These findings contradicts (Hearn & Deupree, 2013) study which observed that these faculties are reluctant to grade rigorously for fear of accumulating negative reviews from the student and thus shaky prospects for contract renewal. CATs and exams acts as feedback between students and lecturers. The lecturer is able to know if he/she is delivering and the students are able to gauge themselves. When it is poorly done, then the feedback will be ineffective. The finding shows those adjunct faculties mark professionally an implication that the correct feedback is given to students.

Table 4.24: Work Ethics of Outsourced Adjunct Faculty

Indicators	SD	D	N A/D	A	SA	Median	Mode
Adjunct faculty prioritize their teaching responsibilities	38 15.2%	81 32.4%	38 15.2%	69 27.6%	24 9.6%	3	2
They demonstrate commitment to the teaching profession	39 15.6%	80 32.0%	62 24.8%	54 21.6%	15 6.0%	3	4
They are punctual for lectures	32 12.8%	82 32.8%	37 14.8%	70 28.0%	29 11.6%	3	2
They come to class fully prepared	18 7.2%	54 21.6%	44 17.6%	79 31.6%	55 22.0%	4	4
They interact with students professionally	47 18.8%	102 40.8%	38 15.2%	47 18.8%	16 6.4%	4	4
They are reliable lecturers	16 6.4%	67 26.8%	49 19.6%	71 28.4%	47 18.8%	3	4
They mark the CATs and exams Professionally	21 8.4%	55 22.0%	45 18.0%	72 28.8%	57 22.8%	4	4

4.9.9 Drive to work

The study sought to establish what drives outsourced adjunct faculties to teaching. The majority 44.8% said it is money, 26.8% said it is to gain experience, 13.2% university understaffing, 5.6% love teaching profession and 9.6% students' satisfaction as shown in Table 4.25.

Table 4.25: Driver of Adjunct Faculty to Teaching

Drivers	Frequency	Percent
Monetary Gains	112	44.8
To gain experience	67	26.8
University understaffing	33	13.2
Love teaching profession	14	5.6
Students' Satisfaction	24	9.6
Total	250	100.0

Outsourced adjunct faculties in Kenyan public universities are driven to moonlighting by money. This implies that the outsourced adjunct faculties do not have the success desire of the students' at heart. This in turn affects students' satisfaction and leads to poor quality of graduates. These findings agree with Kilonzo (2015) study which observed that the aim of many adjunct faculties is to make as much money as they can by teaching extra courses in different campuses because the country and university management do not regulate the workload per lecturer.

4.9.10 Unethical Behaviours

The study sought to establish any unethical behaviours that the respondents have ever encountered in the hands of outsourced adjunct faculties that can influence students' satisfaction. The unethical behaviors that were highly observed were: failure to attend classes and substituting teaching with the handouts, holding exams as ransom for failure of payment by universities, coming to class late & leave before the stipulated time, arrogance, pride and being rude when asked questions and pursuing female students among others as Table 4.26 illustrate.

Table 4.26: Unethical Behaviours with Outsourced Adjunct Faculty

Unethical behaviors common with Adjunct Faculty	Freq	%
Teaching Examinations to students	2	0.8
Failure to submit CAT marks	10	4.0
Delaying to return the scripts	6	2.4
Failure to attend classes and substituting teaching with the handouts	31	12.4
Receiving of phone calls in the lecture rooms	3	1.2
Hold examinations booklets as ransom for failure of payment by universities	15	6.0
Failing students because of a disagreement	1	0.4
Setting substandard examinations	1	0.4
Don't care attitude	8	3.2
Failure to attend classes as timetabled	3	1.2
Soliciting money from students to reveal information of non-payment	1	0.4
Come to class late & leave before the stipulated time	14	5.6
Being money minded	3	2.0
Giving assignments that will never be collected	1	0.4
They pursue female students for sexual favours	11	4.4
They lose temper easily	2	0.8
Awarding higher marks to ladies who do not even attend classes	2	0.8
Unfair handling of cases such as absence of students	3	1.2
Arrogant when asked questions	13	5.2
Unfair in marking of CATs/ Not marking exams to the standard	3	1.2
Giving too many take-away CATs than sitting-in CATs	1	0.4
Handling students suspiciously (they can report them to management)	1	0.4
Lack of time consciousness	1	0.4
Inappropriate language to slow learner students	2	0.8
Indecent dressing	2	0.8
Total	**141**	**56.4%**

These findings conforms with (Bunoti, 2009) study which noted that unprofessional behaviors are common among faculties and other staff. Some of these unethical behaviours are rudeness and use of threatening abuse to students (Bunoti, 2009); difficulties in accessing adjunct faculty for consultation and course advising (Mageto, 2010); being money minded (Kilonzo, 2015); not being committed (Okhato & Wanyoike, 2015) and not prioritizing their adjunct responsibility (Feldman & Turnley 2001) among many more.

The many unethical behaviours that were identified by 141 (56.4%) respondents shows that adjunct faculties are not very upright. These unethical behaviors do not adhere to Deontological moral theory which holds that some acts are always wrong, even if the act leads to an admirable outcome. An adjunct faculty may hold students marks ransom to be paid his due. This act is wrong even if it may lead to favourable outcome. The challenge however is that adjunct faculties are temporary employees and incase of any disciplinary issue or unprofessional behaviours, the university may not be able to follow them. In the end, the students are on the losing end.

4.9.11 Regression Analysis Results for Work Ethics and Students' Satisfaction

The regression analysis was done to establish whether there is a relationship between work ethics and students' satisfaction. To determine how well work ethics predicts students' satisfaction, a regression equation was devised as follows:-

$$y = \alpha_3 + \beta_3 X_3 + \varepsilon$$

Whereby β_3 is the coefficient of correlation of work ethics, X_3 is work ethics and y is students' satisfaction. A scatter plot was plotted to establish if there is a linear relationship between work ethics and students' satisfaction as shown in Figure 4.6

Figure 4.6: Regression Analyses for Work Ethics

Figure 4.6 shows a linear relationship between work ethics and students' satisfaction hence satisfying the assumption of linearity in a simple regression model. The line is diagonal-moving from left to right; a reflection of positive linear relationship between work ethics and students' satisfaction. This therefore means that there is a positively sloped regression.

Table 4.27: Goodness of Fit of Work Ethics

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
.437	.191	.188	4.95487	2.094

In this study, 19.1% of the total variation can be explained by linear relationship between work ethics and students' satisfaction but since the use of adjusted R square is recommended, then 18.8% explains the relationship between work ethics on students' satisfaction. This therefore implies that 18.8% explains the relationship between work ethics on students' satisfaction and the remaining 81.2% can be explained by the other variables in the study. The Durbin-Watson for work ethics was 2.094 an indication that there is non-autocorrelation.

To test the hypothesis work ethics of adjunct faculty has no significant influence on students' satisfaction in Public Universities in Kenya, an F-test was done as shown in Table 4.28.

Table 4.28: ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	1436.478	1	1436.478	58.511	.000
Residual	6088.578	248	24.551		
Total	7525.056	249			

The Table 4.28 indicates the test of significance of the model in predicting the outcome variables. The regression model was significant at $p < 0.05$ with an F = 58.511 to predict

the outcome variable. The hypothesis tested was, work ethics in regression model is not statistically fit to predict the outcome, students' satisfaction. Considering the findings, the F-test is statistically significant at $p < 0.05$. This therefore indicates that work ethics predict the outcome (students' satisfaction) hence we reject the null hypothesis and conclude that work ethics has a significant influence on students' satisfaction.

To determine the regression equation, t-test was performed as shown in Table 4.29

Table 4.29: Determining the Regression Equation

	Unstandardized Coefficients		**Standardized Coefficients**	**T**	**Sig.**
	B	Std. Error	Beta		
(Constant)	15.972	1.402		11.394	.000
Work ethics	.411	.054	.437	7.649	.000

Table 4.29, provides information needed to predict students satisfaction from work ethics of adjunct faculty. Both the constant and work ethics contribute significantly to the model at $p < 0.05$. Using the simple linear regression equation:-

$$y = \alpha_3 + \beta_3 X_3$$

Then α is the constant represented by 15.972 and β is represented by 0.411

Students' satisfaction = 15.972 + 0.411 work ethics

$$Y = 15.972 + 0.411\, X_3$$

This means that for every unit increase in work ethics, there is a 0.411 increase in students' satisfaction.

To test whether the regression coefficient for work ethic was significantly different from zero, a t-test was determined at 5% level of significance.

H_0: $\beta_1 = 0$; regression coefficient of work ethics was equal to zero

H_1: $\beta_1 \neq 0$; regression coefficient of work ethics was not equal to zero

β_1 is the regression coefficient of work ethics

The coefficient in Table 4.29 indicate that the calculated t-value for work ethics = 7.649 and is statistically significant at p value 0.000. This therefore indicates that the null hypothesis should be rejected and the conclusion to be work ethics of adjunct faculty has significant positive influence on students' satisfaction.

Comparison was also done between t-calculated and t-critical to make decisions whether to reject or fail to reject the hypothesis.

1. H_0: $\beta_1 = 0$

   Vs

   H_1: $\beta_1 > 0$

2. $t\text{-}_{calculated}$ = take Unstandardized Coefficients β_1 divide by std error

   $t\text{-}_{calculated} = \frac{\beta}{\varepsilon} = \frac{0.411}{0.054} = 7.611$

3. $t\text{-}_{critical} = t_{n-2}^{(1-\alpha/2)}$

   $t_{n-2} = t_{n-k-1}$ ---------- t_{n-1-1} -------- n-2 = 258-2 ---------- n=256

   $1-\alpha/2$ ---------- $1-\frac{0.05}{2} = 1-0.025 = 0.975$

   $t_{256}^{(0.975)} = 1.96$

Since t-calculated is greater that t-critical, it was concluded that work ethics has positive and significant effect on students' satisfaction. This findings conforms to (Mageto, 2010; Theuri, 2010) whose study noted that adjunct faculties have daunting workloads which leave them with unbearable fatigue and worn out barely in a position to update their lecture notes. Mwiria and Carey (2007) also noted that adjunct faculties devote insufficient time to their involvement or lack adequate information about the course they teach, and this disrupts the teaching programs and leads to lack of continuity. Kyule *et al.*, (2014) also observed that adjunct faculties invest conscious energy into activities that would minimize the uncertainty of their position. This and many more unethical and unprofessional behaviors influence the students' satisfaction negatively.

4.10 Research findings on Working Condition

This section focuses on factor analysis for working condition, the descriptive analysis and inferential analysis.

4.10.1 Factor Analysis for Working Condition

The moderating variable had nine (9) items from the original questionnaire, these items were subjected to extraction and it one (1) item did not meet the recommended threshold of 0.4 and above. The item was therefore dropped and was not considered for further subsequent analysis. The item was: *How can you rate the working condition of adjunct faculty (0.304).* The results for this variable are as illustrated on Table 4.30.

Table 4.30: Rotated Factor Analysis for Working Conditions

Component matrix	Component
Adjunct faculty are usually inducted before they start teaching	.558
They have an operation office space to work from	.546
They are treated fairly by the CoDs/HoDs and full-time lecturers	.430
They are supported with resources that they need in their teaching	.578
University management provide them with training on how to teach	.601
The most committed adjunct faculty is rewarded	.697
They are involved in decision making on matters regarding the students	.704
They receive their paychecks on time	.495
How can you rate the working condition of adjunct faculty	***.304****

* Item dropped

4.10.2 Induction

The research sought to establish whether adjunct faculty are usually inducted before they start teaching: 38% of the respondents disagreed, 19.6% strongly disagreed, 20% agreed, 2.8% strongly agreed and 19.6% neither agreed nor disagreed. Majority 57.6% disagreed that outsourced adjunct faculty are inducted before they start teaching as shown in Table 4.31.

These findings agree with Bergmann (2011) study which noted that adjunct faculties are encumbered by inadequacies in the area of orientation, support system and understanding of universities and departmental policies. They have little contact with the wider university and may be less likely to know institutional policies and programs and thus cannot advice their students about them (Pankin & Weiss, 2011). These inadequacies in proper induction of adjunct faculty's means they lack information on the university's culture, how the structure function, what policies govern the institution and

what are the designs of freedom or limits of behavior in the university. This in the end impacts how they behave at work and interact with students.

4.10.3 Operation Office

The study sought to establish whether outsourced adjunct faculty have an operation office space to work from: 34% of the respondents disagreed, 17.2% strongly disagreed, 24% agreed, 5.6% strongly agreed and 19.2% neither agreed nor disagreed. Majority 51.2% disagreed that adjunct faculty have an operation office space to work from as shown from Table 4.31

This findings agree with (Heuerman *et al.*, 2013), study which observed that many adjunct faculty typically have no office to work from. Johnson (2010) also agreed with these scholars that adjunct faculties lack adequate support services, office space, benefits, professional development opportunities and equal pay for equal work. This implies that even if outsourced adjunct faculty wishes to have office time for consultation with students, they will not have an office space to work from.

4.10.4 Support from Heads of Department

The study sought to determine whether adjunct faculties are treated fairly by the CoDs/HoDs and full time lecturers: 34.4% of the respondents agreed, 9.6% strongly agreed, 26% disagreed, 9.6% strongly disagreed and 16.4% neither agreed nor disagreed. Majority 47% agreed that adjunct faculties are treated fairly by the CoDs/HoDs and full time lecturers as shown in Table 4.31

These findings contradict (Bunton & Corrice, 2011) study which observed that adjunct faculty feels an unsupportive attitude regarding their part-time status from the administrators and colleagues. According to Dolan (2011), these instructors are often treated as outcasts by the academic mainstream. For instance, adjunct faculty are notified of their teaching load later than their full time counterpart whereas they are expected to be fully prepared to teach their courses as is the full time lecturers

(Waltman *et al.*, 2010; Bergmann, 2011). The research findings noted that adjunct faculties are treated fairly by HoDs/CoDs and full-time lecturers. This implies that they have a conducive working environment therefore should give quality services to the students' and the department. According to Rhoades (2012); Zaki and Rashidi (2013) teachers teaching depend on the support and commitment they get from the heads of departments and colleagues which they do.

4.10.5 Resources Support

The research aimed at establishing whether adjunct faculties are supported with resources that they need in their teaching: 34.4% disagreed, 8.8% strongly disagreed, 32% agreed, 12.8% strongly agreed and 12% neither agreed nor disagreed. Although many 34.4% disagreed with the statement, majority 44.8% were in agreement that adjunct faculty are supported with resources that they need in their teaching as shown in Table 4.31.

These findings contradict Bunton and Corrice (2011) study which observed that adjunct faculties feel an unsupportive attitude regarding their part-time status from the administrators. Schwartz (2012) study also noted that adjunct faculty are rarely supported and often ignored by the university at large. Schwartz emphasized that there is a difference between full-time and part-time lecturers in the distribution of instructional activities, engagement with students and connections to colleagues (Schwartz, 2012). Provision of resource and support to adjunct faculty by university management is a positive sign that they recognize adjunct faculties as part of the larger academic team.

4.10.6 Training Support

The study sought to establish whether university management provide adjunct faculty with training to boost their teaching skills: 37.2% disagreed, 13.6% strongly disagreed, 22% agreed, 6.8% strongly agreed and 20.4% neither agreed nor disagreed. Majority

50.8% disagree that university management provide adjunct faculty with training to boost their teaching skills as shown in Table 4.31.

Since learning is the central concern of teachers, they need to be equipped with a well-informed understanding of how learning takes place particularly in socially situated dimensions (Macleod & Golby, 2003). Traditionally, the expertise in lecturer's own discipline has been the most pronounced feature of a university lecturer but recently, the discussion about the need to improve lecturers' pedagogical thinking skill is on the rise (Postareff, *et al.*, 2007). However, adjunct faculties are not given opportunities to develop professionally for their universities (Gappa *et al.*, 2005). These inadequacies in support for training may in ensue to poor service delivery.

4.10.7 Reward

The research aimed at establishing whether the most committed outsourced adjunct faculty are rewarded, 36% disagreed, 15.2% strongly disagreed, 19.2% agreed, 6.8% strongly agreed and 22.8% neither agreed nor disagreed. Majority 51.2% disagreed that most committed adjunct faculty rewarded as shown in Table 4.31.

Management recognition of employee performance and career advancement opportunities motivate employees to work better (Report by the Society for Human Resource Management, 2012). However, lack of it leads to labour turnover, absenteeism, poor performance, low productivity among others (Chughati & Perveen, 2013; Gregory, 2011). According to these findings, very committed adjunct faculties are not rewarded for their commitment. This may demoralize them and when demoralized, employees tend to psychologically disengage their mind from their work leading to poor service delivery.

4.10.8 Involved in Decision Making

This study sought to determine whether adjunct faculties are involved in decision making: 40.8% disagreed, 13.6% strongly disagreed, 18.4% agreed, 8% strongly agreed

and 19.2% neither agreed nor disagreed. Majority 54.4% disagreed that outsourced adjunct faculty are involved in decision making as shown in Table 4.31.

These findings agreed with Frucione (2014) study which observed that adjunct faculties have no voice in their colleges' governance committee. They lack faculty rights and freedom such as the ability to protest unfair working conditions. Every employee work hard based on whether they are involved in decision making or not. If a decision is made by someone else and imposed on an employee, laxity is observed in handling the issue. Based on the fact that adjunct faculties are the majority in delivering education in public universities in Kenya (Wambui, Ngari & Waititu, 2016), more effort should be put in place in involving outsourced adjunct faculty in decision making especially in matters that involve the students that they teach.

4.10.9 Prompt Paycheck

The study sought to determine whether adjunct faculty receive their paychecks on time: 38.8% disagreed 24% strongly disagreed, 11.6% agreed, 3.6% strongly agreed and 22% neither agreed nor disagreed. Majority 62.8% disagreed that adjunct faculty receive their paychecks on time as shown in Table 4.31.

The findings agree with Rhoades (2012) study which pointed out that although assignments of classes might be made months ahead of time, there is no final commitment and no pay to adjunct faculty until classes start and sometimes even later. Johnson (2010) study also noted that adjunct faculty's salary is subject upon successful completion of service for the whole-term of the engagement. The results findings noted that adjunct faculties are not promptly paid. Money is a huge motivator and when it is not forthcoming, performance is affected.

Table 4.31: Working Conditions of Outsourced Adjunct Faculties

Indicators	SD	D	NA/D	A	SA	Median	Mode
Adjunct faculty are usually inducted before they start teaching	49 19.6%	95 38.0%	49 19.6%	50 20.0%	7 2.8%	2	2
They have an operation office space to work from	43 17.2%	85 34.0%	48 19.2%	60 24.0%	14 5.6%	2	2
They are treated fairly by the HoDs and full-time lecturers	24 9.6%	65 26.0%	41 16.4%	96 38.4%	24 9.6%	3	4
They are supported with resources that they need in their teaching	22 8.8%	86 34.4%	30 12.0%	80 32.0%	32 12.8%	3	2
University management provide them with training on how to teach	34 13.6%	93 37.2%	51 20.4%	55 22.0%	17 6.8%	2	2
The most committed adjunct faculty are rewarded	38 15.2%	90 36.0%	57 22.8%	48 19.2%	17 6.8%	2	2
They are involved in decision making	34 13.6%	102 40.8%	48 19.2%	46 18.4%	20 8.0%	2	2
They receive their paychecks on time	60 24.0%	97 38.8%	55 22.0%	29 11.6%	9 3.6%	2	2

4.10.10 Motivation

The study sought to establish whether the university management motivates adjunct faculties. Majority 52.8% of the respondents said no and 47.2% said yes as shown in Table 4.32.

Table 4.32: Management Motivate outsourced Faculty

	Frequency	Percent
Yes	118	47.2
No	132	52.8
Total	250	100.0

According to Mpaata (2010), there is empirical evidence of the relationship between employee morale and goal congruence and this is likely to come from management and professional settings rather than teaching alone. When employees are dissatisfied and unable to change their situation or remove themselves from it, they may psychologically disengage from the job with their minds somewhere else. They may display a very low level of job involvement and commitment, reduce identifying themselves with their jobs and consider their work unimportant and not mind whether they perform well or poorly. Many researches on outsourced adjunct faculty and students' outcome show a negative relationship, not because outsourced adjunct faculties are bad teachers but because their working conditions prevent them from being as effective as they could be. The adjunct faculties feel demoralized because of the reasons highlighted in Table 4.33.

Table 4.33: Reasons for lack of motivation

Reasons for lack of motivation to teach	Frequency	%
There is no recognition for their contribution	15	12.4
Poor pay leading to lecturers boycotting classes	21	17.3
Delayed payment (some have taken legal direction to get their money)	45	37.2
They are not given tools of trade	3	2.4
They are not given proper orientation	2	1.6
There is no other formal motivation arrangements apart from payments	10	8.3
They are not known outside their departments	5	4.1
Have no working space	8	6.6
They are not involved in decision making	1	0.8
Teaching odd hours and days	7	5.7
They get information late compared to full-time lecturers	4	3.3

The findings show there are various reasons why adjunct faculties are not motivated to work. The most noticeable ones being delayed payment, poor pay and lack of recognition. Performance is ability plus motivation. Even if the adjunct faculties have the requisite ability handle their courses and have no motivation to work, there will be poor service delivery.

4.10.11 How to motivate outsourced faculty

The study sought to establish respondents view on how university management can motivate adjunct faculty. Table 4.34 gives respondents views on how the university management can motivate them.

Table 4.34: How University Management can Motivate Adjunct Faculty

How University Management can Motivate Adjunct Faculty	Freq	%
Pay them promptly	40	17.2
Support them with teaching/learning resources	28	11.2
Recognizing their efforts	11	4.4
Involve them in decision making especially students affairs	11	4.4
Improve their working conditions	3	1.2
Reward them by employing them permanently after some time	10	4.2
Inducting them before they start teaching	6	2.4
Create formal meetings with them	1	0.4
Provide office space	8	3.2
Encourage them to participate in departmental meetings whenever possible	4	1.6
Give them transport allowances	8	3.2
Pay rise	11	.8
Assign them other duties and pay them for it	2	0.8
In-house pedagogy training/ training to enhance the teaching skills	7	2.8
Giving them bonuses and rewarding them when their lectures are performed well	11	4.4
Monitoring their class attendance and performance	1	0.4
Total	**144**	**57.6**

As it has been indicated earlier, motivation is key to performance. Mpaata (2010) emphasized this by indicating that there is empirical evidence of the relationship between employee morale and goal congruence and this is likely to come from management and professional settings rather than teaching alone. The respondents' emphasized areas that can increase motivation were prompt payment, management support with teaching and learning resources, recognition among many others.

4.11 Correlation Analysis for the Variables

A correlation coefficient analysis was done between variables to check if there was a relationship between the variables. The aim was to eliminate multicollinearity. Multicollinearity is a phenomenon in which two or more predictor variables in a multiple regression model are highly correlated, meaning that one can be linearly predicted from the other with a substantial degree of accuracy (Carter and Adkins, 2001). Some experts argue that the problem of multicollinearity occurs in the case of correlation coefficients greater than 0.9 (Hair, Tatham, Anderson & Black, 2004). In finding out the correlation between variables, Pearson correlation coefficient was performed as shown in Table 4.35.

Table 4.35: Correlation Matrix

		Students' satisfaction	Competency	Role profile	Work ethics	Working condition
Students' satisfaction	Pearson Correlation	1	.373**	.359**	.437**	.421**
	Sig. (2-tailed)		.000	.000	.000	.000
	N		250	250	250	250
Competency	Pearson Correlation		1	.528**	.567**	.378**
	Sig. (2-tailed)			.000	.000	.000
	N			250	250	250
Role profile	Pearson Correlation			1	.535**	.310**
	Sig. (2-tailed)				.000	.000
	N				250	250
Work ethics	Pearson Correlation				1	.311**
	Sig. (2-tailed)					.000
	N					250
Working condition	Pearson Correlation					1
	Sig. (2-tailed)					
	N					

**. Correlation is significant at the 0.01 level (2-tailed).

Results from Table 4.35 show that all the variables are positively correlated. Students' satisfaction had moderate positive correlation with the independent variables as follows: Work ethics (0.437), competency (0.373) and role profile (0.359). Students' satisfaction also had a moderate positive correlation with the moderating variable, working condition at (0.421). On correlation between the independent variables, competency shows a relatively strong positive correlation with role profile at (0.528), with work ethics at (0.567) competency with moderating variable, working condition (0.378). Role profile show strong positive correlation with work ethics at (0.535) and moderate positive correlation with working condition at (0.310) and moderate positive work ethics with working condition at (0.311). All the variables had a Pearson correlation of $r < 0.9$ an indication that there was no colinearity between the variables. However, a multicollinearity test was performed to be confident about the assumption. In multiple regression, the Variance Inflation Factor (VIF) is used as an indicator of multicollinearity. The Variance Inflation Factor (VIF) as the name implies, is a factor by which the variance of the given partial regression coefficient increases due to the given variable's extent of correlation with the other predictors in the model (Denis, 2010). Many scholars suggested the VIF value <10. However, O'Brien (2007) suggests that this rule of thumb should be assessed in a contextual basis, taking into account factors that may influence the variance of regression coefficients. According to O'Brien (2007), the VIF value of 10 or even 40 or higher does not suggest the need for common treatment of multicollinearity such as using ridge regressions, elimination of one or more independent variables from the analysis nor combining of independent variable into a single matrix. The study adopted O'Brien (2007) VIF value assumptions. The value of 40 was adopted as the threshold as shown in Table 4.36.

Table 4:36: Test for Multicollinearity

	Collinearity Statistics	
	Tolerance	VIF
Competency	.028	35.907
Role profile	.036	27.944
Work ethics	.032	31.715
Working condition	.055	18.046

The VIF value for competency was (35.907), role profile (27.944), work ethics (31.715) and working condition (18.046). This shows that there is no variable that exceeded the threshold of 40 an indication that there was no multicollinearity. This therefore means that no assumption was violated in the study and testing of multiple linear regression should proceed.

4.12 Multiple Linear Regression Model

Multiple linear regression analysis answered the question; do adjunct faculty influence students' satisfaction in Public Universities in Kenya? This analysis is used to explain the relationship between one continuous dependent variable from two or more independent variables. In this study, independent variables were competency (X_1) work profile (X_2) and work ethics (X_3). The dependent variable was students' satisfaction (*y*)

The multiple linear regression equation was:-

$$\mathbf{Y} = \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3$$

Where:-

$\mathbf{Y}$ = Students' satisfaction, X_1 = Competence, X_2 = Role profile, X_3 = Work ethics, β_1 = Regression coefficient of variable X_1, β_2 = Regression coefficient of variable X_2

β_3 = Regression coefficient of variable X_3

A summary equation for the three independent variables, that is, competency, work profile and work ethics were regressed with dependent variable students' satisfaction and the results are as shown in Table 4.37

Table 4.37: Goodness of Fit Model

R	R Square	Adjusted R Square	Std. Error of the Estimate
.980	.960	.959	5.43278

Table 4.37 provides the information on the R, R^2, adjusted R and the standard error, this information is used to determine how well a regression model fits the data. R is the multiple correlation coefficients representing the measure of prediction of dependent variable. Considering R = 0.980, it indicates that there is high correlation between students' satisfaction and the predictor variables. The R^2 = 0.960 explains how much of the variance in the dependent variable is explained by the model. The adjusted R^2 is usually recommended since the R^2 is said to overestimate, in other word, R^2 assumes that every single variable explains the variation in the dependent variable whereas the adjusted R^2 tell the percentage of variation explained only by the independent variables that actually affect the dependent variable. Therefore, the weighted combination of the predictor variables explains 95.9% variance included in this model.

To test whether independent variables had a significant influence on dependent variable, an F-test was done as shown in Table 4.38.

Table 4.38: ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	174791.772	3	58263.924	1974.038	.000
Residual	7290.228	247	29.515		
Total	182082.000	250			

As shown in Table 4.38, the ANOVA results indicate that the adjunct faculty significantly contributes to students' satisfaction. These findings were supported by an F-test of 1974.038 and a probability value of 0.000. An F-test is any statistical test in which the test statistics has an F-distribution under the null-hypothesis. It is most often used when comparing statistical models that have been fitted to a data set, in order to identify the model that best fits the population from which the data were sampled. Anderson *et al*. (2002) indicated that F-test is a test for overall significance, that is, it is used to determine whether significant relationship exist between the dependent variable and the set of all the independent variables. According to Sellke, Bayarri and Berger (2001) if the p-value is below 0.05 then the result is statistically significant. In this study, the p-value for the regression model F-test is 0.000 which is highly significant leading to a conclusion that the three independent variables (competency, work profile and work ethics) together predict the percentage of students' satisfaction. To determine the multiple linear regression equation, t-test was performed as shown in Table 4.39.

Table 4.39: Determining the Regression Equation

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	**Std. Error**	**Beta**		
Competency	.315	.066	.341	4.758	.000
Role profile	.294	.081	.240	3.643	.000
Work ethics	.419	.073	.406	5.763	.000

Although it had been indicated earlier that predictor variables significantly predict dependent variable singularly, they can also predict differently. The regression coefficient provides two kind of information, the strength of a relationship between dependent variable and independent variables and the type of relationship (positive or negative). As indicated in table 4.39 the competency regression coefficient is positive with (0.315) and the relationship is statistically significant at (0.000). The regression coefficient of role profile is positive (0.294) and the relationship is statistically significant at (0.000). The regression coefficient on work ethics is positive (0.419) with a significant relationship at (0.000). In this study, work ethics made the strongest significant contribution followed by competency then role profile.

The regression equation thus was:

$$\mathbf{Y} = \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3$$

Where:-

Y = Students' satisfaction, X_1 = Competence, X_2 = Role profile, X_3 = Work ethics, β_1 = Regression coefficient of variable X_1, β_2 = Regression coefficient of variable X_2, β_3 = Regression coefficient of variable X_3

Therefore:

Y = 0.315 Competency + 0.294 role profile + 0.419 work ethics.

$Y = 0.315\ X_1 + 0.294\ X_2 + 0.419\ X_3$

This finding therefore suggests that adjunct faculties' play a role in determining the students' satisfaction. The findings are supported by Okhato and Wanyoike (2015) study which noted that as the presence of adjunct faculty continues to soar, similarly issues of effectiveness, integrity and quality follows. This is owing to an implied notion that adjunct faculties are giving substandard services to students (Wanzala, 2016). The faculty is perceived as not fully qualified and committed to the profession hence influencing students' satisfaction negatively (Bok, 2017).

4.13 Moderating Effect of Working Condition on Outsourced Adjunct Faculty

A moderating variable is a variable that specifies conditions under which a given predictor is related to the outcome. In this study, the moderating variable was working condition. The researcher was interested in determining if the models are significant and whether the amount of variance noted in model 2, with the interaction, is significantly more than model 1 which does not have the interaction.

Table 4.40: Goodness of Fit

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.980	.960	.959	5.43278	.960	1974.038	3	247	.000
2	.986	.972	.971	4.59100	.012	25.720	4	243	.000

As shown in the goodness of fit model in Table 4.40, model 2 with the interaction between adjunct faculties and working condition accounted for significantly more variance than just adjunct faculties' characteristics without the interaction. The R^2 change = 0.012, p = 0.000 an indication that there is potentially significant moderation between adjunct faculties and working conditions in Public Universities in Kenya. This finding is supported by Flaherty (2013) who noted that employment of adjunct faculty and students outcome shows a negative relationship, not because adjunct are bad teachers but because their working conditions prevent them from being as effective as they could be. The finding shows that working condition influence adjunct faculties' performance an implication that poor service delivery on the part of adjunct faculties is partly due to in-conducive working conditions in Public Universities in Kenya.

To test the hypothesis working condition has no significant moderating effect on the relationship between adjunct faculty and students' satisfaction in Public Universities in Kenya F-test was done as shown in Table 4.41.

Table 4.41: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	174791.772	3	58263.924	1974.038	.000
	Residual	7290.228	247	29.515		
	Total	182082.000	250			
2	Regression	176960.219	7	25280.031	1199.397	.000
	Residual	5121.781	243	21.077		
	Total	182082.000	250			

As noted from the Table 4.41, model 1 without the interaction is significant at $F(3,247) = 1974.038$, $p < 0.05$ and model 2 with the interaction is also significant with $F(7,243) = 1199.397$, $p < 0.05$. As shown the F-test results indicate that the working condition jointly influence adjunct faculty which in consequent contribute to students' satisfaction.

In this study, the null hypothesis; working conditions had no significant moderating effect on the relationship between adjunct faculty and students' satisfaction in Public Universities in Kenya was rejected and alternate hypothesis adopted that working condition has significant influence on adjunct faculty.

This findings conforms with Heuerman *et al.* (2013) study which observed that many adjunct faculty feel that they teach under poor working conditions with lack of resources while others feel that they are mistreated or treated as an invisible faculty that are unseen or recognized. The adjuncts typically have no office to work from. They are not provided with a job description, course description or even a syllabus. This little or no access to instructional resources and facilities affect their ability to deliver quality service (Dougherty *et al.*, 2016).

A t-test was performed to determine the regression equation and predict whether moderating variable-working condition predict competency, role profile and work ethics separately and the outcome is as shown in Table 4.42.

Table 4.42: Determining the Regression Equation

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	Competency	.315	.066	.341	4.758	.000
	Role profile	.294	.081	.240	3.643	.000
	Work ethics	.419	.073	.406	5.763	.000
2	Competency	.448	.215	.485	2.082	.038
	Role profile	-.294	.298	-.241	-.985	.325
	Work ethics	.549	.239	.531	2.298	.022
	Working condition	.814	.082	.674	9.986	.000
	COMPWORK	-.018	.010	-.456	-1.889	.060
	ROLEWORK	.017	.013	.326	1.322	.187
	ETHICWORK	-.015	.011	-.330	-1.353	.177

The moderating regression equation thus was:

$$\mathbf{Y} = \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 Z + \beta_5 X_1 Z + \beta_6 X_2 Z + \beta_7 X_3 Z$$

Where:-

$$\mathbf{Y} = 0.448 X_1 - 0.294 X_2 + 0.549 X_3 + 0.814 Z - 0.018 X_1 Z + 0.017 X_2 Z - 0.015 X_3 Z$$

Model 1 is statistically significant. In model 2, competency, work ethics and working conditions were statistically significant at P<0.05. role profile was not significant. With the intercept (moderating variable), competency was statistically significant at P<0.010 but role profile and work ethics were not statistically significant. The findings also noted that with the intercept, moderated regression coefficient of competency was negative, moderated regression coefficient of role profile is positive and moderated regression coefficient of work ethics is negative.

The coefficient in Table 4.42 indicates that the calculated moderated t-value for competency = -1.889 and it is statistically significant at P<0.010. The moderated t-value for role profile =1.322 and not statistically significant (0.187) and moderated t-value for work ethics = -1.353 and not statistically significant (0.177). This implies that when taken alone, working condition has minimal effect on adjunct faculty's role profile and work ethics. The role profile has to do with the job description set aside by the employee's institution and not influenced by working condition (Mageto, 2010). Work ethics are personal policies governing the individual. They have to do with rules of behaviours on ideas about what is morally good and bad, what is considered right or wrong. According to Bunoti (2009), unprofessional behaviours are common among faculties resulting in rudeness and use of threatening abuse of students. These behaviours are not due to working condition but are based on personal policies governing the individual (Anastasia, 2016).

Based on the findings therefore, this is the revisited moderating variable model:-

$$\mathbf{Y} = \beta_0 + \beta_1 X_1 - \beta_2 X_2 + \beta_3 X_3 + \beta_4 Z - \beta_5 X_1 Z + \beta_6 X_2 Z - \beta_7 X_3 Z + e$$

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the result findings on the influence of outsourced adjunct faculties' competency, their role profile and work ethics on students' satisfaction. It also summarizes the result findings on moderating effect of working condition on outsourced adjunct faculty. The chapter gives the study conclusions and the way forward.

5.2 Summary of the Major Findings

5.2.1 Influence of competency of outsourced faculty on students' satisfaction

This objective sought to determine whether the competence of outsourced adjunct faculty influence students' satisfaction in Public Universities in Kenya. Based on the findings, it was established that competences of outsourced adjunct faculty significantly influence students' satisfaction. The study was also able to establish that majority of outsourced adjunct faculties have masters degree and below. This gives them minimum qualification to teach in an institution of higher learning, otherwise, a faculty of PhD holders is most preferred. It was also established that they have subject competency and enough teaching experience. Subject competence and the necessary working experience make an employee authority in their area of specialization. This subject competency could be because outsourced adjunct faculty practice what they teach.

It was also noted that outsourced adjunct faculty have good classroom management skills; however, they had deficiency in two very important factors in teaching, professional training on how teaching and learning takes place and communication skills. The correlation coefficient analysis revealed that there was a medium positive correlation between competences of outsourced adjunct faculty on students' satisfaction.

5.2.2 Influence of role profile of outsourced adjunct faculty on students' satisfaction

The study objective sought to determine whether role profile of adjunct faculty influence students' satisfaction in Public Universities in Kenya. The study was able to establish that role profile of adjunct faculty significantly influence students' satisfaction in public universities in Kenya. The study noted that the outsourced adjunct faculties are neither available for their lectures nor readily available for consultation. However, adjunct faculties were reported to be good in assessing/evaluating the students, marking and giving feedbacks. Their teaching was also applauded in that they teach using the current information, nevertheless, it was noted that they do not carry out community outreach nor attend departmental meetings. The correlation coefficient analysis revealed that there was a medium positive correlation between work profile and students' satisfaction.

5.2.3 Work ethics of outsourced adjunct faculty on students' satisfaction

The study objective sought to examine the influence of work ethics of adjunct faculty on students' satisfaction in Public Universities in Kenya. It was noted that work ethics of adjunct faculties significantly influence students' satisfaction in public universities in Kenya. It was also noted that adjunct faculty do not prioritize their teaching responsibilities neither do they observe punctuality for classes. However, it was noted that adjunct faculties' are fully prepared for classes but do not interact with students professionally. They are reliable, mark students' examinations professionally but their engagement with these institutions is solely motivated by the inherent monetary gain.

Adjunct faculties were reported to have numerous unethical behaviours and those that came out strongly were failure to attend classes and substituting teaching with the handouts, holding examinations as ransom for failure of payment by universities, coming to class late & leave before the stipulated time, arrogance, pride and being rude when asked questions and pursuing female students. The correlation coefficient analysis revealed that there was a medium positive correlation between work ethics of adjunct faculties on students' satisfaction.

5.2.4 Influence of Working Condition on outsourced Adjunct Faculty

It was noted that adjunct faculties are not inducted before they start teaching. They are not given an operation office space to work from and neither are they rewarded for any achievement or commitment to the university. Adjunct faculties are treated fairly by the heads of departments and colleagues; however, the university management does not provide them with requisite pedagogical skills vital for this undertaking. Adjunct faculties are supported with the resources that they need to carry out teaching but they are neither involved in decision making even in matters that involve the students that they teach nor receive their paychecks on time.

It was noted that adjunct faculties in Public Universities in Kenya lack the motivation to teach majorly due to poor and delayed payments and lack of recognition for their contribution among many others. It was observed that there is a positive medium correlation between working condition and adjunct faculties' in Public Universities in Kenya. It was also noted that working condition in Public Universities in Kenya significantly influence adjunct faculties' service delivery.

5.2.5 Students' Satisfaction in Public Universities in Kenya

It was vastly noted greater part of adjunct faculties' service delivery is far below average. For instance, it was noted that their content delivery, lesson planning, teaching methods and syllabus coverage is far below average. It was also noted that adjunct faculties do not use student-centered teaching methods and neither do they apply the new teaching strategies in their teaching. However, adjunct faculties were applauded for being creative in their teaching and bringing out of class experiences to class.

5.3 Conclusions

The study was able to establish that, outsourced adjunct faculty have the required competences to carry out the role of teaching. It was noted that they have the required academic qualification, subject competency, working experience and classroom

management skills necessary for a lecturer in an institution of higher learning. This shows that university management pay keen attention to outsourced adjunct faculties' competencies before hiring them. However, this faculty lacks pedagogical and communication skills necessary for passing information from the teacher to the learners. Apart from academic qualification, the second most important competency that a lecturer requires is pedagogical skills; the skill on how teaching and learning takes place. The university management or the recruiting and selecting team seems to have bypassed this very important piece. This may in consequent influence students' satisfaction with this faculty.

The study was as well able to establish that role profile of outsourced adjunct faculty significantly influence students' satisfaction. It observed that the outsourced faculties in Public Universities in Kenya do not carry out all the roles required of a lecturer. They are not always available for their lectures, they are not readily available for consultation, they do not carry out community outreach and neither do they attend departmental meetings. What is the role of the outsourced faculty then? The study was able to establish that many universities if not all do not have specified roles of adjunct faculties. This therefore leaves us with an assumption that an adjunct faculty is supposed to carry out all the roles required of a lecturer. Nevertheless, even the most important and basic role of attending lectures consistently is not fulfilled. This makes outsourcing of adjunct faculty in universities defective.

The study furthermore aimed at establishing the work ethics of outsourced adjunct faculty. It was able to establish that work ethics of adjunct faculty significantly influence students' satisfaction, however, it was established that outsourced adjunct faculties are not committed; they do not prioritize their teaching responsibilities and are not punctual for their classes. The faculty is said to be driven to this responsibility by money. There were numerous unethical behaviors common with adjunct faculties some of them being; failure to attend classes and substituting teaching with the handouts, holding exams as ransom for failure of payment by universities, coming to class late & leave before the stipulated time, arrogance, pride and being rude when asked questions, pursuing female

students to get sexual favours, soliciting money from students to reveal information of non-payment and many more. Even though this faculty is not permanently employed by the outsourcing institution, they are obliged to act in accordance with the rules and regulations that govern the employees of that institution. Nevertheless, the outsourced faculty work for their own gain not for the gain of the institution. They act irresponsibly leading to dissatisfaction of the outsourcing organization's client.

The study was in addition able to establish that working condition has a significant moderating effect between adjunct faculty and students' satisfaction. The study determined that outsourced adjunct faculties are not inducted nor given an operation office to work from. They are not given any training in regard to teaching and neither do they get any rewards for their commitment. They are not involved in decision making even in matters that concern the students that they teach and they do not receive their paychecks in time. Among the many important practices that universities do not adhere to in regard to outsourced adjunct faculty, induction stands out. Induction is very important to any new employees since it instills good work habits, introduces the institutions culture, values, mission and vision, as well as focus the faculty to start work promptly and inculcate the right attitudes fro day one of the engagement. When induction is not properly done, or actually not done at all, then the employee may not be held responsible for any misconduct.

Finally, the study was able to determine that adjunct faculties have significant influence on students' satisfaction nonetheless; their service delivery was rated far below average. That is, their content delivery, lesson planning, teaching methods and syllabus coverage was far below average. It was noted that outsourced adjunct faculties do not use student-centered teaching methods and neither do they apply the new teaching strategies in their teaching, however, they were applauded for being creative in their teaching and bringing out of class experiences to class.

To sum up, outsourced adjunct faculties have the required competency to teach in an institution of higher learning however, their very busy work schedule does not allow

them to effectively carry out all the roles required of a lecturer. Majority of them carry out their roles unprofessionally. Their working condition is not conducive and their service delivery is far below average. This leads to a conclusion that, for the achievement of vision 2030, the policy of outsourcing adjunct faculty in public universities in Kenya should be revised to ensure that more competent, flexible and committed team is outsourced.

5.4 Recommendations of the Study

Outsourcing of the adjunct faculty clearly has been and continues to be a necessity since 2012 when the rapid expansion of university education in Kenya commenced. The faculty is an important cog for almost all our training needs in these institutions of higher learning. This research found out that the adjunct faculty generally comes in with good attributes like having the required minimum training, and an exposure to various institutions which expands their teaching experiences.

However, the approach undertaken by most of the public universities managements with regard to outsourcing the adjunct faculty is deficient of the proper human resource management practices and policies that would guarantee optimum use of this faculty in ensuring quality and student satisfaction are achieved. To this end, this research opines that the university management has a major role to play in proper recruitment, induction and a continued pursuit of excellence of these faculties through proper human resource management practices throughout their time of engagement with the institution. This starts with a proper and clear cut policy that specifies the role of the adjunct faculty. This is to be followed by proper recruitment and selection procedures that will ensure that flexible and reliable adjunct faculties are contracted. Practices like attendance of departmental meetings should also be encouraged as it is during such meetings that important university policies, procedures and student affairs are discussed.

This study found out that a majority of the adjunct faculty do not prioritize their teaching responsibilities and teach mostly for monetary gain. Pronouncements like one made

recently by the cabinet secretary for education about phasing out the outsourced faculties seems to have been motivated by among other things, this feeling of lack of commitment. The study established that this is largely true. It however does not recommend a phase – out, but rather an inward institution based evaluation that aims at improving this faculty. To curb the vice and many unethical behaviors found with adjunct faculties, university management should come up with clear disciplinary procedures and guidelines to deal with unprofessional behaviors from outsourced adjunct faculties.

To ensure adjunct faculties are motivated to work, working condition should be improved. University management can come up with clear policies and procedures on how to motivate the outsourced adjunct faculties.

5.4.1 Contribution of the study to Practice

Outsourcing is a good practice because it can be an effective cost cutting strategy. But to ensure failure rate of outsourcing is reduced in organizations, the client and vendor should adhere to principles of outsourcing. For many universities and other organizations, outsourcing is done in a rush and as a quick-fix and/or cost cutting strategy rather than as an investment designed to increase profit and performance. While outsourcing, organizations should adhere to human resource management practices that will yield positive results.

Good human relations should be encouraged between the client and the vendor. The chances of getting sub-standard services increase when the boundaries between the client and the vendor are blurred. There will be successful relationship between the two only when both achieve their expected benefits. In the university set-up for instance, outsourced adjunct faculties are not promptly paid even after offering their services leading to demoralization and thereafter poor service delivery.

To ensure outsourcing acts as a competitive advantage for organizations, managers (client) should select highly qualified personnel who are experienced, flexible and capable of handling the assigned tasks and responsibilities. In universities for instance, the outsourced faculty are not highly qualified personnel (PhDs). They are not experienced and neither are they flexible enough to handle the day-to-day endeavors expected of a lecturer. There is no need to phase-out adjunct faculty in Kenyan universities. In fact, the disparities between the international recommendations for lecturer - student ratios dictates that phasing out of this faculty will not be an option for quite some time in Kenyan universities. Focus should therefore be on how to improve the faculty. Therefore universities should refresh their recruitment and selection procedures to ensure they acquire more qualified, experience, flexible and reliable personnel. This will avoid the quality problems and reduce hidden cost of outsourcing in universities and elsewhere.

If all the human resource management practices are adhered to, principles of outsourcing followed and good human relationship retained between the client and the vendor, outsourcing will be the most preferred employment mode in all the public universities in Kenya.

5.4.2 Contribution of the study to Theory

The study yielded a medium positive relationship between competency, role profile work ethics and working condition on students' satisfaction. The study supported Ability-Motivation-Opportunity theory, deontological theory, social exchange theory and Herzberg two factor theories.

Ability-Motivation-Opportunity theory posits that what employees know and are capable of doing is of paramount importance. The theory also indicate that employees should be motivated enough to utilize the capabilities in specific role and responsibilities. Herzberg two factor theory also emphasize motivation of employees. This demonstrates how important employee capability and motivation is on customer satisfaction. The

result supported this theoretical evidences in that it was found out that competency of outsourced adjunct faculty significantly influence students' satisfaction and working condition has a significant moderating effect between adjunct faculty and students' satisfaction. This can be interpreted to mean that managers should pay more attention on employees' capability and working conditions. This theory should provide a new outlook on how the management should view outsourcing and outsourced employees. The leaders should make them feel more comfortable by providing them with conducive working environment and training workshops which can enhance their motivation and performance.

Deontological theory which holds that we are morally obliged to act in accordance with certain set principles and rules regardless of outcome. This demonstrates how important morality and professionalism is. The result findings supported this theoretical evidence in that it was found out that work ethics of outsourced adjunct faculty significantly influence students' satisfaction. Outsourced employees should be ware that some acts are always wrong even if the act leads to an admirable outcome. The outsourced team should purpose to carry out the roles allocated to them diligently and honestly despite the challenges they may encounter at their place of work.

The study supported social exchange theory which emphasizes the need to reciprocate the benefit received. When outsourced employees are motivated through conducive working environment, they exchange the favour by being committed to their responsibility. Organizations should apply these theories while outsourcing to achieve quality performance from the outsourced personnel.

5.5 Areas for Further Research

This study sought to establish the influence of outsourcing adjunct faculties on students' satisfaction in public universities in Kenya using cross-sectional survey research design. Areas for further research can include: to establish the factors that influence outsourcing

of employees in other public sectors in Kenya. A study on the factors that make outsourcing to fail in organizations can also be done.

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APPENDICES

Appendix I: Letter of Introduction

Dear Respondent,

Ref: HD412-C002-2223/12

I am a student at Jomo Kenyatta University of Agriculture and Technology (JKUAT) pursuing a Doctorate degree in Human Resource Management and carrying out a research on "**Influence of Outsourcing Adjunct Faculty on Students' Satisfaction in Public Universities in Kenya**".

Your university is one of the institutions selected for the study; consequently, you have been selected as a respondent. I assure you that the information you provide will be used for academic purpose only and therefore will be treated with utmost confidentiality.

I appreciate you for having time to participate in this study. In case of any queries do not hesitate to contact me using the contacts below.

Thank you for your assistance

Tabitha Wangare

P.O. Box 1957, Karatina

tawangare@gmail.com

Appendix II: Questionnaire

The study seeks to examine the **INFLUENCE OF OUTSOURCING ADJUNCT FACULTY ON STUDENTS' SATISFACTION IN PUBLIC UNIVERSITIES IN KENYA**. All information provided here will be treated with utmost confidentiality

Following instructions, answer questions as indicated by either filling in the blank or putting a tick where applicable

Note

i. *Adjunct faculty also mean part-time lecturer. A part-time lecturer is a lecturer who is not permanently employed by the university.*
ii. *Universities Lecturers in Kenya are accountable for offering quality service in teaching, research and community service*

SECTION I: GENERAL INFORMATION ABOUT THE RESPONDENT

1. Your gender Male ☐ Female ☐

2. Your category Student ☐ HoD ☐ Director Quality Assurance ☐

3. Your age below 20 ☐ 21-30 ☐ 31-40 ☐ 41-50 ☐ Above 50 ☐

4. Your University _____

SECTION II: COMPETENCY OF ADJUNCT FACULTY

1. Majority of adjunct faculty in the university have?

Bachelors' Degree ☐ Masters Degree ☐ Doctorate Degree (Dr./Prof.) ☐

2. Please indicate the extent to which you agree or disagree with the statements highlighted.

1- Strongly Disagree **2** - Disagree **3**- Neither agree nor disagree **4** –Agree **5**- Strongly Agree

	Competency Measures	**1**	**2**	**3**	**4**	**5**
i	My adjunct faculty have thorough knowledge on the subject content					
ii	They are qualified to and specialist in the courses that they teach					
iii	They have adequate (three and above years) teaching experience					
iv	They are professionally trained on how teaching & learning takes place					
v	They have positive attitude towards teaching					
vi	They have published books and articles					
vii	They create a classroom environment that leads to higher order thinking and learning					

3. Tick the skills and competencies that adjunct faculty lack (tick all that applies)
   Teaching skills ☐ Communication skills ☐ Class management skills ☐
   Subject-knowledge competency ☐ Research skills ☐ None of the above ☐

4. How can you rate the teaching skills of adjunct faculty
   Poor 0- 20% ☐ Moderate 21- 40% ☐ Good41-60% ☐ Very good 61-80% ☐ Excellent 81-100% ☐

5. How can you rate their communication skills
   Poor 0- 20% ☐ Moderate 21- 40% ☐ Good41-60% ☐ Very good 61-80% ☐ Excellent 81-100% ☐

6. How can you rate their competency level
   Poor 0- 20% ☐ Moderate 21- 40% ☐ Good41-60% ☐ Very good 61-80% ☐ Excellent 81-100% ☐

SECTION III: ROLE PROFILE

7. Please indicate the extent to which you agree or disagree with the statements highlighted.

1- Strongly Disagree **2** - Disagree **3**- Neither agree nor disagree **4** –Agree **5**- Strongly Agree

	Role Profile Measures	**1**	**2**	**3**	**4**	**5**
i	Adjunct faculty are always available for their lectures					
ii	They are readily available for consultation					
iii	They assess students by giving at least two CATs and assignments					
iv	They mark the CATs and assignments and give feedback					
v	Their teaching is informed by the latest researches					
vi	They volunteer their services and expertise to the community surrounding the university					
vii	They attend moderation of exams and departmental meetings					

8. Do adjunct faculty perform all the roles/duties required of a lecturer namely; teach, evaluate, research and do community service
   Yes ☐ No ☐

9. If NO in [13] above, can failure to perform all the duties required of a lecturer affect the students' satisfaction? Yes ☐ No ☐
   Explain
   _____
   _____
   _____
   _____

SECTION IV: WORK ETHICS

10. Please indicate the extent to which you agree or disagree with the statements highlighted.

1- Strongly Disagree **2** - Disagree **3**- Neither agree nor disagree **4** –Agree **5**- Strongly Agree

	Work Ethics Measures	**1**	**2**	**3**	**4**	**5**
i	Adjunct faculty prioritize their teaching responsibility					
ii	They demonstrate commitment to the teaching profession					
iii	They are punctual for lectures					
iv	They come to class fully prepared					
v	They remain in class for sufficient time					
vi	They interact with students professionally					
vii	They are reliable lecturers					
viii	They mark the CATs and exams professionally					

11. What drive adjunct faculty to teaching?
    Monetary gains ☐ To gain experience ☐ University Understaffing ☐
    Love teaching profession ☐ Students' satisfaction ☐

12. How can you rate their level of commitment to teaching
    Poor 0- 20% ☐ Fair 21- 40% ☐ Good41-60% ☐ Very good 61-80% ☐
    Excellent 81-100% ☐

13. How often do their other workloads and profession affect their preparedness and class attendance
    Never ☐ Not often ☐ Not sure ☐ Quite often ☐
    All the time ☐
14. Indicate any unethical behaviors that you have ever encountered with adjunct faculty that can affect students_____
    _____

SECTION V: WORKING CONDITIONS

15. Please indicate the extent to which you agree or disagree with the statements highlighted.

1- Strongly Disagree **2** - Disagree **3**- Neither agree nor disagree **4** –Agree **5**- Strongly Agree

	Working Condition Measures	**1**	**2**	**3**	**4**	**5**
i	Adjunct faculty are usually inducted before they start teaching					
ii	They have an operation office space to work from					
iii	They are treated fairly by the CoDs/HoDs and full-time lecturers					
iv	They are supported with resources that they need in their teaching					
v	University management provide them with training on how to teach					
vi	The most committed adjunct faculty are recognized and rewarded					
vii	They are involved in decision making on matters regarding the students					
viii	They receive their paychecks on time					

16. How can you rate the working condition of adjunct faculty
    Poor 0- 20% ☐ Fair 21- 40% ☐ Good 41-60% ☐ Very good 61-80% ☐
    Excellent 81-100% ☐
17. Does the university management motivate adjunct faculty?
    Yes ☐ No ☐
    Explain your answer _____
    _____
18. Explain how the university management can motivate adjunct faculty_____
    _____

SECTION VI: STUDENTS' SATISFACTION

19. Indicate your level of satisfaction with adjunct faculty's

1. Poor 0- 20% **2.** Moderate 21- 40% **3**.Good 41-60% **4.**Very good 61-80% **5**. Excellent 81-100%

	Students' Satisfaction Measures	**1**	**2**	**3**	**4**	**5**
i	Content deliver					
ii	Subject relevancy					
iii	Tuition and currency of the subject materials that they teach					
iv	Planning of lessons					
v	Creativity in teaching					
vi	Use of student-centered teaching methods					
vii	Application of new teaching strategies					
viii	Provision of opportunities for out of class experiences					
ix	Coverage of syllabus					

20. Do students complain about adjunct faculty?
    Never ☐ Not often ☐ Not sure ☐ Quite often ☐
    All the time ☐
21. In your own view, what can be done about adjunct faculty for better students' satisfaction?
    _____
    _____
    _____
    _____
    _____

THANK YOU

Appendix III: Variable 1: Competency

S/no	Factors related to Competency	Code
i	My adjunct faculty have thorough knowledge on the subject content	C1
ii	They are qualified to and specialist in the courses that they teach	C2
iii	They have adequate (three and above years) teaching experience	C3
iv	They are professionally trained on how teaching & learning takes place	C4
v	They have positive attitude towards teaching	C5
vi	They have published books and articles	C6
vii	They create a classroom environment that leads to higher order thinking and learning	C7

Correlation Matrix for Competency

	C1	**C2**	**C3**	**C4**	**C5**	**C6**	**67**
C1	1						
C2	.496**	1					
C3	.341**	.403**	1				
C4	.215**	.260**	.224**	1			
C5	.110	.098	.096	.157*	1		
C6	.243**	.254**	.346**	.149*	.153*	1	
C7	.351**	.288**	.392**	.162*	.196**	.424**	1

Appendix IV: Variable 2: Role Profile

	Role Profile	Code
i	Adjunct faculty are always available for their lectures	**RP1**
ii	They are readily available for consultation	**RP2**
iii	They assess students by giving at least two CATs and assignments	**RP3**
iv	They mark the CATs and assignments and give feedback	**RP4**
v	Their teaching is informed by the latest researches	**RP5**
vi	They volunteer their services and expertise to the community surrounding the university	**RP6**
vii	They attend moderation of exams and departmental meetings	**RP7**

Correlation Matrix for Role Profile

	RP1	RP2	RP3	RP4	RP5	RP6	RP7
RP1	1						
RP2	.326**	1					
RP3	.306**	.265**	1				
RP4	.248**	.194**	.459**	1			
RP5	.273**	.220**	.332**	.415**	1		
RP6	.184**	.229**	.096	.224**	.346**	1	
RP7	.183**	.187**	.141*	.256**	.240**	.218**	1

Appendix V: Variable 3: Work Ethics

	Work Ethics	Code
i	Adjunct faculty prioritize their teaching responsibility	**WE1**
ii	They demonstrate commitment to the teaching profession	**WE2**
iii	They are punctual for lectures	**WE3**
iv	They come to class fully prepared	**WE4**
v	They remain in class for sufficient time	**WE5**
vi	They interact with students professionally	**WE6**
vii	They are reliable lecturers	**WE7**
viii	They mark the CATs and exams professionally	**WE8**

Correlation Matrix for Work Ethics

	WE1	WE2	WE3	WE4	WE5	WE6	WE7	WE8
WE1	1							
WE2	.407**	1						
WE3	.244**	.220**	1					
WE4	.236**	.407**	.152*	1				
WE5	.098	.143*	.100	.118	1			
WE6	.149*	.324**	.158*	.385**	.070	1		
WE7	.206**	.353**	.226**	.356**	.065	.421**	1	
WE8	.264**	.281**	.225**	.345**	.064	.384**	.394**	1

Appendix VI: Variable 4: Working Condition

	Working Condition	Code
i	Adjunct faculty are usually inducted before they start teaching	WC1
ii	They have an operation office space to work from	WC2
iii	They are treated fairly by the CoDs/HoDs and full-time lecturers	WC3
iv	They are supported with resources that they need in their teaching	WC4
v	University management provide them with training on how to teach	WC5
vi	The most committed adjunct faculty are recognized and rewarded	WC6
vii	They are involved in decision making on matters regarding the students	WC7
viii	They receive their paychecks on time	WC8

Correlation Matrix for Working Condition

	WC1	WC2	WC3	WC4	WC5	WC6	WC7	WC8
WC1	1							
WC2	.316**	1						
WC3	.215**	.234**	1					
WC4	.222**	.277**	.215**	1				
WC5	.214**	.086	.276**	.253**	1			
WC6	.309**	.323**	.143*	.245**	.344**	1		
WC7	.225**	.244**	.133*	.351**	.359**	.462**	1	
WC8	.116	.173**	.076	.135*	.247**	.270**	.361**	1

Appendix VII: Variable 5: Students' Satisfaction

	Students' Satisfaction	Code
i	Content deliver	SS1
ii	Subject relevancy	SS2
iii	Tuition and currency of the subject materials that they teach	SS3
iv	Planning of lessons	SS4
v	Creativity in teaching	SS5
vi	Use of student-centered teaching methods	SS6
vii	Application of new teaching strategies	SS7
viii	Provision of opportunities for out of class experiences	SS8
ix	Coverage of syllabus	SS9

Correlation Matrix for Students' Satisfaction

	SS1	SS2	SS3	SS4	SS5	SS6	SS7	SS8	SS9
SS1	1								
SS2	.135*	1							
SS3	.255**	.178**	1						
SS4	.248**	.273**	.288**	1					
SS5	.141*	.208**	.256**	.227**	1				
SS6	.187**	.216**	.246**	.190**	.225**	1			
SS7	.217**	.259**	.295**	.256**	.233**	.190**	1		
SS8	.198**	.125*	.179**	.200**	.128*	.215**	.419**	1	
SS9	.220**	.086	.194**	.121	.276**	.163**	.224**	.273**	1

Appendix VIII: Sampled Universities

#	Sampled Public Universities in Kenya
1	University of Nairobi
2	Moi University
3	Kenyatta University
4	Kimathi University
5	Karatina University
6	Technical University of Kenya
7	Murang'a University
8	Cooperative University of Kenya
9	Garissa University

Appendix IX: Public Universities in Kenya

s/no	Public Universities in Kenya
1	University of Nairobi
2	Moi University
3	Kenyatta University
4	Jomo Kenyatta university of Agriculture & Technology
5	Egerton University
6	Maseno University
7	Masinde muliro University of science and technology
8	Dedan Kimathi university of technology
9	Chuka university
10	Jaramogi Oginga Odinga university of science and technology
11	Karatina university
12	Kisii university
13	Laikipia university
14	Meru university
15	Pwani university
16	Technical university of Kenya
17	Technical university of Mombasa
18	University of Eldoret
19	Machakos University
20	Rongo university
21	Taita Taveta University
22	Cooperative university
23	Kibabii university
24	Embu university
25	South Eastern university of Kenya
26	Kirinyaga university
27	Muranga University
28	Maasai Mara University
29	University of Kabianga
30	Garissa university
31	University of Eldoret

Source: Commission for University Education (CUE)