RE-ENGINEERING INVESTMENT IN STUDENTS' ACCOMMODATION IN PUBLIC UNIVERSITIES THROUGH PUBLIC-PRIVATE PARTNERSHIPS IN KENYA

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DECLARATION

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

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Declaration by the Supervisor

We confirm that the work reported in this thesis was carried out by the candidate under our supervision and has been submitted with our approval as university supervisors

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LIST OF ABBREVIATIONS AND ACRONYMS

BLT-   Build-Lease-and-Transfer

BNPP -   The Bank-Netherlands Partnership Programme

BOO-   Build-Own-and-Operate

BOOT -   Build-Own-Operate-and-Transfer

BOST-   Build-Operate-Share-Transfer

BOT -   Build Operate and Transfer

PPPs-   Public Private Partnerships

SPSS-   Statistical Package for Social Sciences

USAID -   United States Agency for International Development

ABSTRACT

Accommodation, is one of basic need, is an aspect of growth in money matters and therefore important to all areas of the economy. Although it is not regarded as a primary assignment of educational administrators with respect to education, quantity and quality of student accommodation has an effect on academic performance. This is a fact in public universities in Kenya which have been facing a challenge in investing in student accommodation due to budget constraints. Although faced by housing challenge, not many universities have utilized Public Private Partnership even when it has been cited as a success in other infrastructural development. The purpose of the study was to evaluate the role of PPP in investment in student accommodation in public universities in Kenya. The objectives of the study were: to determine the extent to which PPP bridges the financing gap of investment in student accommodation in public universities in Kenya; examine the effect of risk sharing through PPP in student accommodation investment in public universities in Kenya and to identify the factors that influence the choice of PPP model in public universities in Kenya. The study used survey design. The study population were 115 top management and middle level university staff from public universities. Stratified random sampling technique was used to select 157 participants in the study. The study used questionnaires with close-ended questions to collect the data. The data collected for objective one and two was analyzed using ordinal logistic regression analysis while factor analysis was used to analyze the third objective. The findings of the study were presented using frequency tables, pie charts and graphs. In organizing and summarizing the data, descriptive methods such as mean, percentages and frequency distribution were used. Ordinal logistic regression analysis was employed to establish relationships between study variables. Tables of frequencies and percentages were used to present the findings. At 95 percent confidence interval the findings indicate that financing gap bridged by PPP explains the variation in student accommodation investment. The findings also indicate finance hindering investment, terms of access, credit facilities, accelerate investment, budget constraints and value for money were found to have a positive but do not have statistically significant effect on investment of student accommodation through PPP. The findings also indicate that the factors selected in risk sharing through PPP are positive but not statistically significant in influencing the investment in student accommodation. The findings from the factor analysis done on the factors that influence PPP choice, shows that University policy and government regulations are the factors that highly influence the choice of PPP model. The study concluded that PPP bridges the finance gap in public universities on investment in student accommodation thus meeting societal need. Through PPP risk is minimized and the model choice is greatly influenced by the policies implemented in place. The study recommends that stake holders should embrace and implement PPP by making policies that are enforceable which will curb budget constraints thus increasing investments in public universities.

CHAPTER ONE: INTRODUCTION

1.1 Introduction

This chapter introduces the study and it includes the background of the study, research objectives, research hypothesis and statement of problem. The chapter also covers limitation of the study and scope of study.

1.2 Background of the study

Public Private Partnership (PPP) is an agreement between a public entity and a private entity, for the provision of public service, through investments made and/or the responsibility of managing the asset being carried out by the private sector entity (Yescombe, 2007). This is usually for a specified period of time, where there is well defined allocation of risk between the parties. Shweta (2013) argued that private partner receives payments linked with performance that follow the stated and pre-determined standards of performance, measurable by the public entity. In past years, governance of education though PPPs has been a heated discussion as to the resolution, implication, prominence and results. The discussion is intense especially in the education segment due to the opinion that it is a complicated social and political task that should remain mainly, even if its not in wholesome, in the control of government and purposing public wellbeing (Robertson & Verger, 2012).

The increasing involvement of private actors which has led to rapid expansion of PPPs in education, includes more of the traditional arenas of public education systems: policymaking, education infrastructure provision, inspection, school management and therefore deserves to be scrutinized (Bhanji, 2008; Hatcher, 2006; Saltman, 2010). To

some, PPPs are simply a newer, friendlier, phase on a longer-standing 'privatization of education' agenda (Hatcher, 2006) which is way of re-engineering investment from the traditional way by the public university. According to King (2009), others however regard PPPs as an alternate means of funding education that draws upon optimum benefit of the public and the private with the ability of resolution of deep systemic challenges in education systems, in regard to quality, access and equity. There are several PPP models in use that allocate the responsibility and risks between the partners that includes: Build Operate and Transfer (BOT), Build-Own-and-Operate (BOO), Build-Own-Operate-and-Transfer (BOOT), Build-Lease-and-Transfer (BLT) model Build-Operate-Share-Transfer (BOST), Built and Transfers (BT), and Build-Own-Operate-Share-Transfer (BOOST) models (Yescombe, 2007). PPP can also be in form of agreement where the institution assures the private sector of accreditation after completion which is within the standards of the University.

Globally, universities have been faced with housing challenges. According to Leonard and Geoffrey (2007) in the United States, most of universities are now confronting serious accommodation shortages revealing that out of 127 institutions surveyed, 54 percent have insufficient accommodation facilities. The university accommodation shortage that is widely spread is driven by unprecedented University enrollment. This is according to the William and Tabitha (2006). 15 to 20 percent are predicted to increase in admission at Universities from 2002 to 2014. There has been increase in public universities in the previous years which have been driven by the huge number of school leavers willing and able to further their studies. There has also been mass exodus of students to other countries, majorly India and the United States of America, which has

made other local universities to introduce other modes of study (Ngolovoi, 2008). These have necessitated more accommodation facilities in these universities which has been a big challenge with the inadequate government funding and lack of expertise. Like many of the infrastructure projects that need high initial capital, housing challenge can be solved by the utilization of PPP models which offers an unlimited opening to build and expand the option to be accommodated in the University facilities for students. This is because it introduces improved expertise by the private investor and bring capital on board to the public institutions, in the same time both the current and future needs are meant in terms of accommodation facilities and infrastructure at universities thereby improving overall value to stakeholders. Thus PPPs is able to give a unique, but effective resolution for meeting the accommodation and structure anxieties of university education which is from designing and constructing new buildings to managing operations and facilities.

Even though novelty of PPP, there is sufficient indication that it is more effective than the old-fashioned model (Leonard & Geoffrey, 2007). Sometimes back, according to Phillip (2005), the accommodation problem also confronted the U.S. military which were housing shortages, aging buildings, and maintenance cost being very high which were infuriating the housing managers. The realization that investment in accommodation in both development and management is not among the competences of public institution, the management of the military resolved to engage private investors. Participation of private investor in providing the military accommodation lead to success in terms of the accommodation quality at a reduced cost leading to value for money for the taxpayers.

These lessons can be applied to public universities in addressing the accommodation challenges in Kenya.

PPP in other universities of the world have been used to solve housing problems one of which is the Florida Atlantic University (FAU) which applied a BOST PPP model. This is where the university combined hands with Balfour Beatty Campus Solutions whereby they provided capital for the plan, improvement and construction of the facilities and afterwards they shared the revenue from the facilities.

Not many Kenyan universities have made use of PPP as an answer even though Kenyan government has established a regulation on PPP in support of Vision 2030 (RoK, 2012) to assist institutions to be enlightened on the avenues of PPP. PPP has been cited as solution to the housing challenges in universities, not many have utilized the model. Success has been recorded in some infrastructure where PPP have been embraced (Koimett, 2012). It has been adopted in provision of accommodation facilities such as Jomo Kenyatta University of Agriculture and Technology, Maseno University, Moi University and Kenyatta University. The four universities are in the process of adopting a Built-Operate −Transfer (BOT) PPP model. A university provides land to the private investor to develop and be allowed to operate, recoup their initial cost and a specified percentage profit after which the hostel is transferred to the university. Dedan Kimathi University of Technology also uses PPP in provision of accommodation to its students in collaboration with the Catholic Church. It is a PPP model where the Church has built a hostel including a dining hall such that the university has accessed the hostel to its standards and accredit it to its student but the payment is to the Catholic Church (http://www.dkut.ac.ke/).

1.3 Statement of the problem

Like in most African countries, University education in Kenya was historically free (Sarah, 2009) and this made funding of Public universities infrastructure the responsibility of the government. While the current Kenyan Government policy as outlined in the vision 2030 (RoK, 2012) is to increase access to education, public funding of universities is expected to reduce due to the increased number of universities. Emphasis has not been on accommodation since it's considered to be non-core activity (Leonard & Geoffrey, 2007) as far as education institutions are concerned. This is against the study that shown that campus student accommodation has as long been associated with persistence, positive student learning outcomes, intellectual development and student success (Terenzini & Reason, 2005). This has led to reduced investment in accommodation facilities in the public universities.

The low level of investment in student accommodation has been associated with finance gap brought by access to credit facilities since large sums involved mean that a loan has to be taken out to develop in terms of a mortgage (Devesh & Megan, 2008). Risk aversion of the landlords, initial cost of investment, land tenure and culture of the host community (ownership) has led to low level of investments in accommodation facilities using the traditional method of investment.

Public universities have therefore, to look for novel ways of accommodating their students if they are to balance between access, quality, positive student learning outcomes and business probity. PPP has been heralded as the panacea for the accommodation problem. Most of the previous studies have focused on how PPP will assist in education infrastructure and factors that lead to failure of PPP implementation. Gudo (2014)

focused of the financing higher education in Kenya using PPP approach. But very few have studied how the PPP will assist in reducing the accommodation scarcity. It was pertinent, therefore that the role of PPP in student accommodation investment in the country assessed and making the findings of the study available for use by other similar countries.

1.4 Objectives of the study

This research was guided by general objective and specific objectives

1.4.1 General objective

The purpose of the study was to evaluate the role of PPP in investment in student accommodation facilities in public universities in Kenya.

1.4.2 Specific objectives

The study was guided by the following specific objectives:

   i.   To determine the extent to which PPP bridge the financing gap of investment in student accommodation in Public Universities in Kenya

   ii. To establish the effect of risk sharing in student accommodation investment through PPP by public Universities in Kenya

   iii. To examine the factors that influence the choice of PPP model in Public Universities in Kenya

1.5 Hypothesis of the study

   i.   Hypothesis 1 Ho: There is no statistical significant bridge in the finance gap on investment in student accommodation in Public Universities in Kenya as a result of PPP

ii.   Hypothesis 2 Ho: There is no significant relationship between risks sharing brought by PPP and investment in student accommodation in Public Universities in Kenya

iii.   Hypothesis 3 Ho: There is no significant relationship between the factors and success in investment through PPP

1.6 Significance of the study

The management of the public universities will greatly benefit from the findings of this study since it will enable them to eliminate scarcity of accommodation in the future. This will enable them lay strategies to cub the student accommodation problem thus ensuring sustainable learning environment. The stakeholders such as the community, investors and the government can learn from the findings of this study in realization of opportunities of investment in future. Other researchers may gain from the findings of this study as they convey out study in related areas.

1.7 Scope of the study

The aim of the study was to find out the how investment university students' accommodation facilities could be re-engineered through public-private partnerships in Kenya. To determine the extent to PPP bridges the financing gap of investment, establish the effect of risk sharing through PPP and examine the factors that influence the choice of Public Private Partnerships (PPPs) model in Public Universities in Kenya. There could be other factors that influence the choice of Public Private Partnerships (PPPs) model; however, this study was only focus of the stated variables. The geographical scope of the study was be limited to three public universities; Kenyatta University in Nairobi County, Karatina University and Dedan Kimathi University of Technology both in Nyeri County.

The respondents of the study were university staff who include top and middle level management since they are involved in strategic planning of the Universities. The two universities were selected due to the proximity to the researcher and this it is easy to access the respondents.

1.8 Limitation of the study

The limitation of this study was that the results obtained from this study might not be generalized to private universities because the investments in these universities are not guided by PPP Act.

1.9 Definition of Terms

Students: Refers to the users of the accommodation facilities by the Public University and are registered as students in the University

Public University: The term "public" means that the funding of the institution comes from the taxpayers kitty in a given country. A public university is a public institution that the operations are funded by public funds from the taxpayers through a national government. It includes both fully fledged public universities and constituent colleges.

Student accommodation: use or development of infrastructure so as to accommodate bona fide students while studying at tertiary institutions.

Private sector: Denotes firms that are not controlled by the central or county government. In this study, firms that are formed by private investor for the purpose of making profit and deals in accommodation investment in higher institutions.

Re-engineering: Rethinking and redesigning the way investment in student accommodation facilities by the Public University are done in order to reduce cost without compromising the value for money.

Investment: student accommodation facility developed with the aim that the facility will provide revenue in the future or will assist the University to attract income either directly through rentals or by accommodating more student to earn additional tuition.

Public Private Partnership (PPP): A PPP is defined as an enforceable binding contract between a public university and a private investor who becomes a partner in the provision of accommodation amenities that have previously been provided by the public institution.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

Literature review involved a review of past studies in relation to relevance of public-private partnerships; it has been sourced from books, journals, research papers and internet sources and reviewed in terms of how PPP assist in solving accommodation problem in public Universities.

2.2 Public Private Partnerships

PPP is defined as collaboration between public and private entity who come together for a common value of conveying public services, sharing risks and return, where all parties in the partnership benefit from the transaction leading to a win-win partnership (Hodge & Greve, 2007).

2.2.1 Concept of PPPs

PPP can be defined as contract between a public institution and a private entity leading to superior private sector involvement in the provision and/or funding of public investment (Ed & Javier, 2010).

According to Broadbent and Laughlin (2003), PPPs are arrangements for expediting more effective outcome between public and private organizations even though they may be different between sectors and project. Because of different legislative frameworks in different nations they may also differ from one country to another where the contracts are based on. The U.S. Department of Transportation for example prefers design-build PPP model where contracting out operations, maintenance, arrangement for designing and constructing an investment being done by a single contractor (Emilia & Robert, 2009).

2.2.2 Current Policy Framework in Kenya

In the Kenyan economy, the law was enhanced to create a conducive environment for the PPP agreements. Necessary legal instruments have been provided by the Public Private Partnership Act (2013) where it provides support to private capital investments towards public structural growth. In the Kenya Vision 2030, the government has pinpointed on the strategic development areas to be positioned under the framework of PPP in the nation. The legislation on PPPs that have provided a conducive policy environment making it viable to promote projects that are capital intensive. The change in policy aims at realizing the significant public resources and funds that were in the past assigned to the education section to be focused to other areas in the economy. This in return closes the gap of the inadequate resources for a sustainable infrastructure development in the nation (RoK, 2013).

One of the recommendations given by the economic survey of 2013 is that PPP should be encouraged through ways in which the private invest can be motivated. This can be through mechanisms and instruments like tax incentives to the parties of the PPP, enabling ensuring there is an environment that is friendlier to the private sector and development partners, and coming up with financing models that are accompanied by policies in facilitating the concessions and ownership. Section 19 of the PPP Act (2013) as a regulatory guidance provides for the following PPP arrangements that can be operationalized: Output-performance-based contracts, Management contracts , Concessions, Build-Own-Operate-Transfer, Build-Own-Operate, Develop-Operate-and-Transfer, Lease of public property, Build-Operate-and Transfer, Build-Lease-and Transfer, Rehabilitate-Own-and-Operate, Build-Transfer- and Operate, Land Swap and

Rehabilitate-Operate-and-Transfer. Government has provided a framework that creates a clear aspect of PPPs. This has given room for the development of PPP in every sector which encourage innovative adaptations for both the public and private organization.

2.3 Public University Students Accommodation

According to Sarah (2008), living alone is one of way of achieving a milestone in life whether it is accommodation in University or outside campus. Residential shift is one help the young adult in their lifecycle where they leave their parents' house and live independently lead to a transition to adulthood. Even though residential facilities it may seem to a service to the student community, but it may lead to conflict between the communities i.e. the general community and the student (Fogg, 2008) in and outside the campus.

Accommodation can be constructed according to the standards of the institutional mission, thereby strengthening that mission. Accommodation can build positive or negative familiarities for the student. Living atmospheres are typically developed for social reasons, the designs therein can lead to social consequences that can be intentional or otherwise (Halpern, 1995). The consequences from the social life has an impact to the student experience in life. The living environment can be the starting of social connections friendships, mentorships which can achieve a moral stability between learning to be independent and living with other people (Fogg, 2008). The accommodation can increases both the importance of creating effective living and the result thereafter.

California University of Pennsylvania has shown the importance of accommodation an experience to the campus community. After a revitalization of accommodation, there were changes that were improving the student life while in the University and enhancing the position of California University as compared with the other Universities (Harris & Niccolai, 2005). This served as evidence that key concern should be made to the University accommodation. It has been noted that students can be shaped by the experience gained in the environment. In consideration that there has been an increase in the number of students who have been shaped by their University life experiences this is making accommodation of the students critical (Smith, 2000).

There has been a shift in the amenities required offered to the student community changing the used culture. This has led to a public opinion that University education has shifted from a public good to an investment. This has been concluded that the shift has been led by the current policy in terms of finance and the fees payable increased lead to an argument that university education is not a necessity to the common person rather a luxury (Zemsky, Wegner & Massy, 2005).

This perception of university education has been evidenced by the increasing transfers from University to another by the students. Many of these students are taking degree programs where among the graduands, 60 percent have attended more than one University (Zernike, 2006). This have made the students to design and control the Universities instead of pursuing the education as per the universities polices. The student approach has increased pressure on Public institution in retaining the student body, and facilities, accommodation. An analysis of a survey done by June (2006) shown that University facilities are some of the factors that influences the choice or the decisions on

which University to attend where accommodation form 42.2 percent of the factor that influence the choice made.

Despite the weight put on importance of students' accommodation in the Universities are not keen in providing enough housing for the students especially after the double intake introduction this is mainly because of lack of funds and capacity and this is why this study seeks find out students accommodation challenge can be overcome through public private partnerships.

2.3.1 Previous Research on PPP

According to the research done by Doru and Miriam (2008), they found that PPP investments are paid either payment by endorser or payment from the tax payer's pocket or a mixture of the two. In the conclusion, they argued that the latter is the best in achieving optimum return from the investment. Also in the PPP arrangements risk on revenue should be shared by the Public authority even though not entirely. It was concluded that PPP can leads to better solutions for capital intensive projects that are for social importance.

According to PPP handbook for Singapore (2012), PPP has been cited as the best way in which public institution can utilize in delivering services since they lead to value for money to both parties of PPP. PPP can also lead to a long-term partnerships between the parties which will eventually lead to optimal cycle costing, risk sharing, utilizing the assets maximumly and providing great opportunities to both the public University and the private investors.

A study by Gudo (2014) on financing University Kenyan education through PPP found that the current of financing model University education in Kenya is insufficient to the required investments needs which was in support of a report in budget deficit (RoK, 2012) stating that only 11% of the budget goes to education sector including infrastructure which is very little. Gudo (2014) also pointed out that the Kenyan government should be encouraged to develop instruments that encourage PPP in provision of physical facilities. He also believed that for an organization or country's decision to invest in capital intensive projects which entails high initial cost must obtain return on investment in the future through increased earnings and production. The study recommends that for the growth of 10% to be attained scale up wealth generation program through PPP should be embraced. It also recommends that PPP s an innovative engagement of private investor.

In the study conducted Akintole, Mathias and Cliff (2003), in PPP both parties i.e. public institutions and private investor, should be involved in the management of risk and opportunities thereby enhancing transparency of the PPP processes thus ensuring that there is success in the partnership. This is because success in PPP can be achieved when the greatest contract concern should be risk and related cost are shared among the state, public entity and private investor.

In a research that was conducted by Esther (2009), cited PPP to have advantages. Some of the advantages are using finances from the private investor that provides capital from new sources resulting to reduced public borrowings and improving the credit rating of the public. Also accelerating investment development of projects that would otherwise have to wait for scarce sovereign resource;, the use of private sector capital initiative and

knowhow to reduce construction cost, schedules and improve operating efficiency; allocating the risk of the investment and offloading the private investor some of the responsibilities.

From these studies PPP stands as the best option in provision of social service such as education that is quality, stable financing and where risk is mitigated through risk sharing. There is no study that has been done on PPP in Kenya on provision of student accommodation in Kenyan Public University.

2.4 PPP variables

The variables discussed in this study include: Finance, Risk sharing and Factors that influence PPP choice of model decision.

2.4.1 Finance

In promoting PPP in developing countries, the United States Agency for International Development (USAID) in 2001 created the Global Development Alliances programme (GDA) with an aim of improving the social and economic conditions. This was initiated to recognize private investor role in development. As a result 1,200 partnerships were registered by USAID.

Public sector is a highly motivated partner for PPPs because the relationship affords opportunities to better meet the needs of the public. Historically, a perceived weakness of the public sector is its unyielding, hierarchical and bureaucratic nature as an organization. However, public sector managers can overcome these barriers when engaged in PPPs. In fact, they need to learn new and innovative skills (e.g. the adoption of customer service and continuous quality improvement principles) that may be in direct contrast to the

public sector's rigid structure (Vaillancourt-Rosenau, 2000). Also, the formation of PPPs can address financial and service delivery challenges (Nikolic & Maikisch, 2006).

In PPP the private investors contributes to the strength of the partnership by being creative and dynamic, having the technological knowhow, efficiency in managerial and spirit of entrepreneurship and financial resources are accessed with ease. According to Vaillancourt-Rosenau (2000), PPP is also assumed to be the good at performing tasks of economic importance, innovating and replicating successful experiments, adaption of change by leaving activities that do not have value for money and performing complicated activities. However, compensation as a motivator should be offered to private investors to ensure there is active collaboration with public institutions toward public goals as a common goal.

PPP has been utilized by many sectors, example in Latin America, agricultural sector in obtained financial resources for specific projects and funds from the national governments and development institutions. Funding of agricultural research and innovation have also been done to the partnerships. Analysis results from research on PPPs for innovation and agro-chain in 12 Latin American countries showed that in 101 partnerships, 34 per cent of the total investment came from the private funds. The study also found funds from business consisted 55 percent of the private investment while associations of the producer formed 45 percent formed the remaining (Hartwich, *et al,* 2005).

In a study done by Shah (2005), the private sector was found to provide capital that required in the development projects thus reducing borrowing by the government. PPPs

have produced most savings and improved efficiency and effectives of service Local government must request its council or appoint a regulatory body to regulate prices to protect the public or customers and taxpayers from inefficient and unfair price increase in particular cases where the private sector provider has no competition (Mzikayise, 2009). Participation of private sector in PPP arrangements enable financing of project and eliminating equity capital and debt capital that are costly to country.

2.4.2 Risk sharing in PPPs

According to Nikolai (2012) risk management is one of the key concerns because the sharing of risk both initial and subsequent between parties in a PPP since they affect the total cost of the projects together with the benefits.

Risk according to EC (2003) is any occurrence, issue or influence that affect the achievement of an investment in terms of time, cost or quality. It can also be termed as uncertain possibility of unfavorable event that can result in increased cost causing delay of the investment as stated by Hardcastle and Boothroyd (2003). Before the start of any investment risk should be identified and thus should form part of the negotiation. Sharing of risk agreement should be arrived on who is in the best position to bear the responsibility for the specific risks in the partnership. The sharing of risk involves identification, allocation, and negotiation to the institution that best knows and can reduce the risk thereby maximizing the benefits of the investment (Goldsmith & Eggers 2004). Sharing of risk between the public institution and private sector is one of the reason why PPPs were created which results to cost reduction of the investment.

With the aim of minimizing the uncertainty in any investment, the risk agreed to be shared should be indicated in the PPP contract indicating the partner to bear the risk and the related cost in when the event occurs. This is in agreement with Klijn and Teisman, (2003) who argued that risk in PPP should be shared among the partners. Tin risk sharing accepting risk means bearing the cost thereof, therefore discussion should be held in the initial stage of negotiation of the PPP contract before accepting risk. Compensation as an incentive should be considered to offset increased costs by making risk sharing acceptable by the private investor. When identification and thereafter negotiation of the risks are effective together with compensation in the initial PPP contract, this leads to the success of the partnership. This is in agreement with Hodge (2005), who argued the risk sharing is essential, in any PPP investment that involves high capital costs.

According to EC guidelines (2013), parties in PPP should share the risk according to the one who can be able to mitigate risk resulting to cost reduction without compromising the value for money. This is because of the implication on the total investment cost and the financial position of the partners. Risk sharing is not only to transferring some risks from one party to the other in the PPP, but it requires evaluation of the ability of each party in dealing with risk. The same ideas are in agreement with the Public Private Partnerships Guidelines in New Zealand (National Infrastructure Unit of the Treasury, 2009). When deciding the extent to which each partner should take responsibility of the risk, related cost is an essential aspect, since the government or the users of the investment have to bear the cost for the private investor to maintain return on investment. The degree of risk shared by the private sector will influence the overall cost of the investment to the public University as they are associated with the price premium. Therefore the objective of risk

sharing must be to achieve cost effective, not simply risk allocation for its own sake (EC, 2003).

According to Hema (2016), risk sharing can be optimally achieved when public university is able to mitigate some risks at minimal cost and they remain with the University rather than being with the private sector. In the provision of accommodation using PPP, Public University and the private investor share the risks of delivering the services that are efficient and effective. According to each party in the PPP expertise in managing and mitigating the risks forms basis of sharing the risk. Risk that can be shared to the private invest may include design, construction and financing risks while the public university may include political, regulatory risks and revenue risks.

To ensure certainty in future cash flows, financial risks should be transferred to the private sector leading to optimal sharing of risk. Successful PPPs considers that risk should be shared to achieve the following objectives: minimized total cost of the investment; delivery of the investment within the time limit, achieving acceptable standard within available budgeted amount; quality investment for value for money through efficiency; and ensuring consistency with the estimated expenditure (EC, 2003).

2.4.2.1 Managing variation of revenue (Revenue Risk)

PPPs are exposed to various types of risk, the common one is revenue risk because of the uncertainty to predict with accuracy the amount of revenue an investment within a period of time. Some of the factors that influence the expected revenue and causing uncertainity are utilization level, prices, and the demand elasticity of in the accommodation facilities. According to Prud'homme (2004) in the study concluded that costs associated with PPP

can be underrated while revenues are overrated. Due to this inaccuracies, 50 percent of errors are estimated or more as the rule instead of exception in regards to revenues and expenses of the PPP investments.

According to the conclusions of Nikolai (2012), in all PPP investment projects, each partner share risks with their related cost to another. An agreement must be made between the two parties in the PPP since acceptance of any risk will mean to accept even the cost that arises from the risk shared. Any risk that is shared and accepted may lead to either increase either the profits or the losses. This was supported by UN (2008). This may lead to agency conflict if the risk is not shared properly in the PPP and agreed upon. Therefore proper risk management will include both sharing and allocating the initial risk as stipulated in a contract and any additional reallocating of risk emanating from unexpected factors leading to additional cost. This factors have a high influenced by how effective and efficient the partner is to mitigate the risk it have been shared.

2.4.3 Factors that influence PPP choice of model decision

There are many factors that influences the choice of the PPP choice of model and these factors do affect the model success. Some of the factors include: University Policy, Government regulation, the private investor expertise and many others. A lot of interest have been developed by the developing countries through PPP in both telecommunication and investment in infrastructures. This was evidenced by a study by EPPPL (2010) which shows that a total of USD 786 billion invested from 1990 to 2003 invested in the developing countries.

PPP has led to success stories in countries like South Africa in providing urban services to its citizens in areas like Durban. Investment through PPP have been utilized in various sectors like trade and transport which has led to increased economic development in the country (Houghton, 2011). Kenya has not left behind since it has developed the will in its politics and this will lead to a success in both economic and social sectors especially in in health, higher education, and transport. There is big support in terms of flow of private investors' capital to the public sectors in support of national initiative. This has not been a smooth road without of its challenge due to the results being qualitative nature in measuring efficacy (Nzimakwe, 2006; Sagalyn, 2007).

The mutual benefits should guide PPP being accepted and not benefits vested in one partner of the partnership since this can turn to loss to taxpayer. In a study done by Cheung and Chan (2011) shows that this has made some countries to be very doubtful on PPP like Hong Kong. The private sectors are known to be more efficient that government institutions in the delivery of services which should not be taken advantage to the ordinary citizen by bearing heft costs. In the sixties, countries like Hong Kong had already the embraced PPP model like build, operate and transfer (BOT) in its transportation sector and not all them were a success story (Cheung & Chan, 2011).

In a study done by Wycliffe (2012), argued that proper governance provided by the government in terms of political, economic and administrative control by providing policies in place is factor that influence the choice of models used by the public institutions and thereafter the success of PPP. Governance both in government and public university willing to implement the PPPs, since it will dictate the models applicable

together with incentives thereof. The will determine the success of implementation of PPPs.

2.5 Effect of Public Private Partnerships (PPPs) on the in student accommodation investment in Public University

In the success of PPP, transparency is very crucial in PPP and any interference or politics should not be given room (Kouzmin, Johnson & Thorne, 2011; Hudon, 2011). Countries where democracy of institutions have boon embrace like Quebec have recorded PPP successes this was noted by Hudon (2011) since any interference have been avoided. In Kenya this has been enhanced where legislations have been published for example the procurement procedures which are formidable and the institutions that are democratic to enable PPP activities without political or state meddling. However there should need in ensuring that rigidity of the processes are not there to restrain the private sectors from offering their services in the PPP arrangements.

The PPP arrangements should be aimed at delivery of services to the public and should not have hidden motives to benefit some investors. Shortage in accommodation was experienced by Nigeria in the past and in 2002under its National Housing and Urban Development Policy (NH UDP) that started in 2002, 45,000 houses for low income earners were planned to be constructed through the PPP arrangement (Ibem, 2011). That is why this study seeks to find out how PPPs can solve accommodation service challenge in public universities especially after introduction of double intake which resulted to massive accommodation challenge among other infrastructures like lecture rooms.

2.6 Theoretical Review of the research

The section explains the theories that were used in this study.

2.6.1 The Theory of the PPP

The theory of PPP was indorsed in 1997 by the group gathered around Neil Kinnok with the Report publication, this was on how to finance trans-European transport network though PPP arrangements which was between the public entity and private investors (COM, 1997). The concept represented a cooperation form in provision of improved amenities by a private sector, public authority and other parties. Currently, PPP is a concept that is existing in the interest of economic media, in the institutions internationally, the economic and discourses politically, and also in publications of both financial and juridical interest.

The PPP investment that is between the private and public sectors has a history in project financing for a long time. In Roman Antiquity for example, the establishment of equipment harbor, the courts and the thermal were developed through PPP granting. It was pinpoint by Le Digeste the fact workers in the public institution were protected while carrying out their activities. In France between the centuries of 17th and 18th, PPP was used for canals and bridges building and the 19th century Golden Age was also considered in building the railways and the urban utilities such as transport, water, light and drainage. In the second half of 19th century, PPP forms were found in U.S.A in the railways construction. The PPP was also embraced in 20th century where rehabilitation programs were introduced in the partnership between the private sectors and local authorities and this programs saved the declining the industrial areas. PPP concept thus represent any form of partnership between private and public institutions this help the

introduction of critical contributions that may result to the public good in solving the social problems. And by this PPP has registered amazing growth in providing many kinds of public benefits.

From the PPP theory it defines the partnership is a practice of collaboration in which the costs, risks and profits are shared equally shared. The theory reasons that forming such cooperation which differs but includes the creating, organizing, financing, operationalizing and sustaining the investment leading to cost efficiency in the provision of services to the public. This means that the participants of the cooperation join together in mobilizing and planning essential resources in achieving a common goal leading to a win-win situation and this forms to an incentive to the partnership.

The advantages of PPP are numerous to the public some of them are mobilizing resources from the parties of the partnership, creation of new abilities and experiences is shared; and giving confidence is enhanced making sure there is consolidation of the partnership leading to mutual benefits between parties. The beginning point of PPP varies from the administration of the arrangement and their goals The importance of the PPP term, extended from the collaboration between a public university and private investor who act as an economic agent, to the cooperation between a public institution and the non-governmental, associative sector formed of controlled organizations under private ownership, but whose aim is solving the public and societal need and not only for profit.

2.6.2 Normative and Positive Theory of Public-Private Partnerships

The theories advocate the importance of budding (partnership). David and Jerome (2006) stressed that complexity activities of services needed by the public including Public

universities accommodation should be kept in mind for one understand the optimal design of delegation of responsibilities. Those activities necessitate indeed, first, to efficiently build some investments and also management of the assets resulting to output that is optimum. This theory stresses on the Delegation of some responsibilities to the private investors from the public institution in a multi-task environment.

First, the public university designs the features and quality aspects of the investment. Also, the public institution chooses a private investors to develop the assets on its behalf but the public institution maintain ownership of those assets. Finally, the Public institution makes a choice of the operator to ensure management of those assets and in providing the services. Bennett and Iossa (2002) found that with the constraints of the budget currently, initiatives in the world including the legal reforms (Berger, 1985) have proposed an alternate form of providing the public good as PPP. In that alternative way of proceeding, the public institution have to choose a private investor to take charge of quality design in the traits of the investment, asset building and efficient management of the assets. PPP as an alternate method of infrastructural development is characterized by budding the building and management of the investment and the pattern of owning is quite deferent.

It's important to understand the optimal point of PPP from the point of view of a normative, where delegation of activities is relevant in a framework where agency problem is experiences between the parties (Che &Yoo, 2001). A better design provided by advanced technology from the private investors in an investment lead to cost reduction, the case of an externality that is positive (Choi, 1993). This may necessitate procedures that are new to sensitized in the management of the assets and leading to

increasing cost of operations, the case of the externality is negative (Daniels & Trebilcock, 2002). In taking advantage of positive externality, responsibility should be taken by the investor to mitigate cost and not compromising quality of the assets. Spontaneously, there is need for a trade-off between providing incentives to the investor in improving the infrastructural quality and insurance against quality realization in case of adverse shocks. The trading off means reduction of the power of the investor incentives so that he can exercises less than the first-best effort. The normative do not explain the disagreement to the modern PPP arrangement that is undertaken by political decision-makers, practitioners and other stakeholders even though it points out the arguments above that is certainly appealing.

2.6.3 Agency Theory

A contract under which the principal who can be one or more people hire the agent who is another person to undertake some activities on their behalf, and the authority to make decisions is delegated to the agent can be defined as an agency relationship. Theoretical basis of this study was derived from agency theory of firm. This theory explains the correlation between principal and the agent where the agent acts on behalf of the principal and this may lead to agency problem (Evanson, 2015). In this study the agent which is the investor who acts in behalf of the principal (university) to offer accommodation facility to the students. It also explained the relationship between the Universities which will act as agent when paying the leases to the bank who are the financiers of investment. This theory also explains the conflict that may hinder investment in accommodation facilities thus leading to scarcity in student accommodation. As such, the study used the theory in explaining the accountability in

27

both the private investor and public university, governance and commitment of partners to achieve the PPP goals.

2.7 Conceptual Framework

The study aimed at investigating the association between the dependent variable and the independent variables. Figure 2.1 shows the relationship between different variables that were important in achieving the desired results of the study. The model focuses on how PPP assist in solving accommodation problem in Public Universities. The independent variable was PPP which was broken down into finance; Risk sharing and the factors that influence the PPP choice of model decision. The dependent variable was the student accommodation investment. The dependent variable was influenced by the independent variable.

Public private partnerships   Student accommodation investment

```
┌──────────────────────────────┐
│ Finance                      │
│ -development          budget │
│ allocation                   │
│ -Credit facilities           │
└──────────────────────────────┘
                                              ┌──────────────────────────────┐
┌──────────────────────────────┐              │ Student    accommodation     │
│ Risk sharing                 │   ────────▶  └──────────────────────────────┘
│ -Variability of revenue      │
└──────────────────────────────┘

┌──────────────────────────────┐
│ Factors   that  influence PPP│
│ model decision               │
│        -Time                 │
│        -PPP Policy in place   │
└──────────────────────────────┘
```

Independent variable   Dependent variable
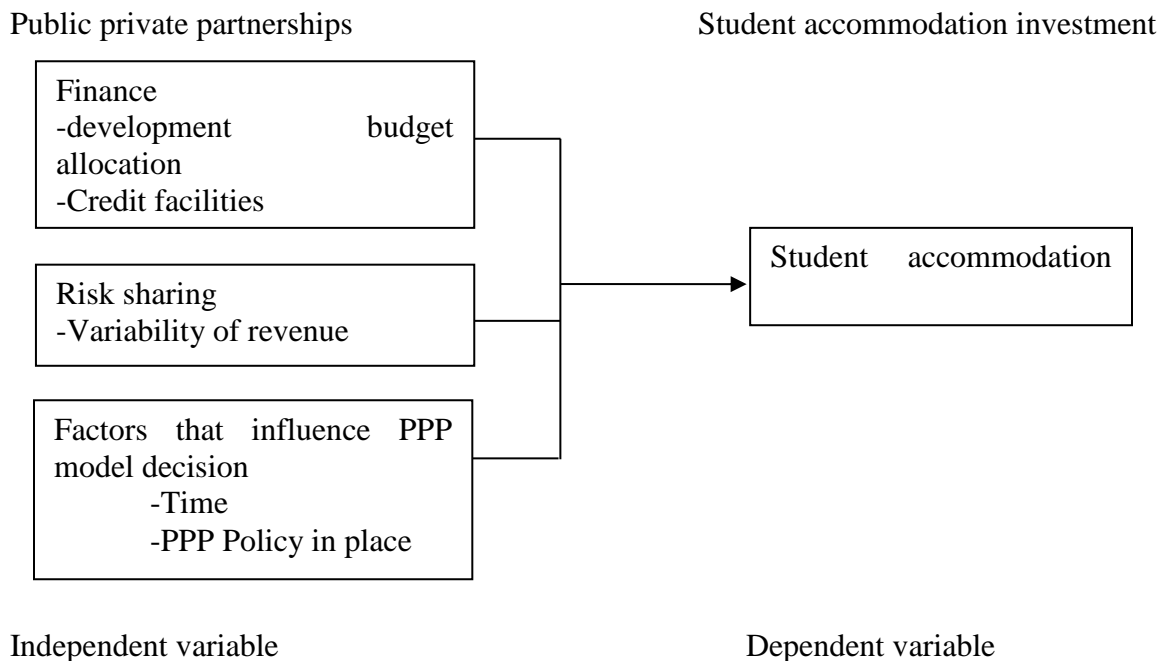
Figure 2.1: conceptual framework
Source: Author (2016)

2.8 Study Gaps

PPP is considered as a myth and their importance in improving the delivery of service. It has also been argued that the qualitative in nature of PPP makes the impact not be measured with ease (World Bank, 2009; Sagalyn, 2007; Nzimakwe, 2006). Urging that PPP are any alternate to privatization that is unpopular, this have made it to be criticized. According to Nordtveit (2005) that this was the case in Latin America, but also in the UK. World Bank and the IMF were influenced by the consensus after the post-Washington where the governments and funding agencies turned to contracting out to private providers in an increasing rate for the execution of investment meant for the provision of services.

In the study by Nordtveit (2005) states that critics of PPPs find the solid influences of the Thatcher and Reagan era and also the principles of Hayeks' economic theory, which focused on individual liberty and the policies of government that are rigid which afterwards were known as neo-liberalism or market fundamentalism. The complement of this approach was the emergence in Western Europe of the New Public Management paradigm that regards the introduction of the philosophy of profit-making into the public sector as a beneficial factor in ensuring that better services and efficiency of production is enhanced (Fennell, 2007). It was also argued that PPP will introduce the private sector managerial skills of the partnerships in education and health into the public sector,

improving efficiency and competitive environment (Fennell, 2007). However, efficiency in the traditional view in countries Taiwan, Hong Kong and Singapore cannot be beneficial to proper education, where students have to perform in the international scale well. Ball and Youdell (2007) states that in UK, political ideology was argued to be a key factor in the PPPs introduction in the system of education, rather than any substantial economic gain.

CHAPTER THREE: METHODOLOGY

3.1 Introduction

This chapter discusses the research design and methodology used in carrying out the study. The chapter discusses the research design, the study area, population and the sample used in the study. The sampling procedures, data collection and analysis procedures are also described.

3.2 Research Philosophy

This research is based on realism philosophy which focusses in the reality and beliefs that are already exist in the atmosphere. According to Rana and Chad (2005), since an individual aims proving his values and beliefs, it makes it related with the condition of social constructivism. It can be reality directly on what an individual sees, feels, hear, etc. or in serious realism where persons argue for situation based on their experiences.

3.3 Research Design

Research design is a strategy that specifies the process and actions to be done in the collection and analysis of the information obtained (Sekeran & Roger, 2009). It can also be termed as a blue print for the collection, measurement and analysis of data collected to achieve preferred outcome (Cooper & Schindler, 2003). The study adopted the quantitative method which uses numbers to describe a phenomenon. The quantitative method was appropriate for this research because it uses survey design that is descriptive for a large sample of the population under scrutiny. Survey involved selection of a sample of respondents and administration of questionnaires to gather data on variables of concern. Since the study was to seek to obtain descriptive data from Public University

staff (upper and middle level management staff) and the investors making them suitable for the study. The hypothesis were used to test whether there is a relationship between the investment in student accommodation and other key variables.

3.4 Study Area

The study was carried out in three public universities in two counties Nyeri and Nairobi. The country's population is growing with a very high rate so is the student population in Public Universities increasing. Factors such as resources, time limitations, knowledge to an area and efforts influenced the choice of location (Gay, Mills & Airasian, 2012). The universities are managed by the University's Act (2012), therefore making them similar in terms of operations.

3.5 Target Population of Study

Population can be defines as the total collection of the components about which the study aims to make inferences (Cooper & Schindler, 2003). Thus a target population for the study was 31 public universities which include 22 fully fledged universities and 9 University colleges. The population comprised 115 university staff (top management and middle level) and 42 investors of student accommodation facilities. The universities in which the research was to be done were selected by use of stratified simple random sampling where the strata were of those who have adopted PPP and those that have not adopted PPP. They were selected as shown in Table 3.1.

Table 3.1 Target population

Category	Population (university staff)	Investors
Adopted PPP		
Kenyatta University	80	20
Dedan Kimathi University of Science & Technology	20	12
Have not adopted PPP		
Karatina University	15	10
Total	115	42

3.6 Sample Design

This entails sampling procedure and sample size determination

3.6.1 Sampling Procedure

Kothari (2003) describe sampling to involve any procedure that draws conclusion based on measurement of a portion or part of the population. Sampling is preferred because it saves cost and time and also because it enables the researcher to do estimation of some unknown characteristic of the population. Neuman (2000) argues that keeping the sample into a manageable size is the main factor considered in considering the size of the sample. According to Mugenda and Mugenda (2003) a detailed data can be attained by the researcher at affordable resources in terms of finances, time and human.

Between a sampling frame and the sample population, the researcher ensured that there was a high degree of correspondence with accuracy of the sample. The study used stratified and simple random sampling techniques. Stratified sampling involves dividing the population into stratas namely size, age and gender. The universities were stratified into those that have adopted PPP and those which have not adopted PPP. After dividing the population into strata, simple random sampling procedure was used in selecting the

sample from each strata. Simple random sampling ensured that every item in the population was represented and had equal chance of being selected.

3.6.2 Sample Size Determination

The representative of the population is reffered as a sample. Neuman (2000) asserts that a study with a10% or more as an adequate sample size in a survey study. On this strength, three Public Universities were selected in the study by use of formula by Cochram (1963). It was the researcher's discression to choose an error of 50% to achieve a sample that is manageable which is in agreement with Neuman (2003).

$$n = \frac{N}{1 + N\,(e)^2}$$

n- Required sample size
N- the given population size (31 public universities)
e - error of the data population (0.5)

$$n = \frac{31}{1 + 31\,(0.5)^2}$$

$$= \quad 3$$

According to Ordodho (2010), a share of 10% - 30% is applicable in stratified random sampling which was also a satisfactory sample size for a survey study (Neuman, 2000). The study randomly sampled 30% of the 115 management staff and 15% of the 42 investors; the total target population was 157 respondents and sample of 40 respondents. It was the researcher discretion to choose the percentage that is in agreement with Orodho (2010). The sample size was determined as below:

Table 3.2 Sample Size

Category	Population (university staff)	Sample 30%	Investors	Sample 15%
Adopted PPP				
Kenyatta University	80	80 ×30%=24	20	20 ×15%=3
Dedan Kimathi University of Science & Technology	20	20 ×30%=6	12	12×15%=1.8 app. 2
Have not adopted PPP				
Karatina University	15	15 ×30%=4.5 App. 4	10	10×15%=1.5 app.1
Total	115	34	42	6

3.7 Data Collection

This section presents the research data collected, instruments of the research, the reliability and validation assurance of the research instruments and the data collection procedure that was adopted in this study. The study used questionnaires which were close-ended questions.

3.7.1 Research Data

The research data in this study was categorized into two groups namely primary and secondary data.

3.7.1.1 Secondary Data

Secondary data are figures and proofs collected by somebody else other than the researcher himself. The investment level of student accommodation and sources of finance were attained from financial statements, approved budgets and strategic plan of the universities

The research was based on data provided by the public universities in annual reports or news and existing regulation documents: PPP policy in the University, strategic plan and

financial report. Review of articles, books, academic publications, journals or electronic material related to the subject also assisted in identifying how PPP can be used to solve student accommodation problem in public Universities

3.7.1.2 Primary Data

There is superiority in the primary data than secondary ones in a way that they were selected and collected so that they purposely fit the research. Hence, besides secondary data, the study also used primary data. Primary data was gathered through both qualitative and quantitative methods. Questionnaires were designed that were used to get more information on how PPP was used to solve accommodation challenge.

3.7.2 Research Instruments

The research instruments that were used in this study were questionnaires. Researcher prepared questionnaires that are open and close ended. The main reason for using questionnaires is that questionnaires focus directly on the issues of the research and they are more objective according to Kombo and Tromp (2006). Questionnaires are brief and comprehensive, thus appropriate for the study.

3.7.3 Validity of Research Instruments

Validity can be referred as quality accredited to intention or measures to the extent to which they fit to establish the knowhow or truth (Paton, 2002). An attitude measure can be considered valid to the extent to which the outcome comply with other measures of ownership of the attitude. If an instrument measures to some degree what it intended to have measured then it be referred as validity of that instrument when it asks the right question with a level of accuracy. The instruments of data collection was sub-divided as per the variables and objectives, comprehensive and representative of the behavior

domains that measured the validity of the content of the instrument and was determined through expert judgment which involved discussing items in the instrument with the supervisor and colleagues. In order to test validity of the data collection instruments (questionnaires), a pilot study was carried out in Karatina University where the participants in the piloting did not participate in the main study. This aimed in determining any possible weaknesses of the instruments in order to adjust it.

3.7.4 Reliability of the Research Instrument

A measure of the extent to which a research instrument produces consistent outcome or data after repeated trials is called reliability of the instrument. In testing the reliability of the instrument to be used in the study, a pilot study was carried out after which a reliability coefficient calculated. These was to find the degree to which the questionnaires stimulate the same responses every time it was administered. Mugenda and Mugenda (2003) state that the number of cases in the pre-test should be 10% thus four questionnaires were administered to the respondents for the pilot study. Cronbach alpha was used to establish reliability which according to Neuman (2000) is the adequate used method of measuring reliability. Table 4.1 shows the findings of the reliability.

Table 3.3: Reliability Statistics

Cronbach's Alpha	N of Items
.764	4

The results of the pilot test returned alpha = 0.764. An alpha score of 0.75 and above indicates adequate internal consistency. The research instrument were concluded to be adequate to collect the data for the main study.

3.7.5 Administration of Research Instruments

Piloting was first done after which the research instruments were modified to ensure that the instrument comprehend fully the purposes and data collection methods. Questionnaires were later the administered by the research assistant to the respondents from 3rd to 21st of August 2015. After the questionnaires were collected, responses were coded to ease of imputing to SPSS to analyze and interpret.

3.8 Data Analysis and Presentation

Selection of most suitable statistical analysis is determined by the type of data collected and the overall design of the research (Baumgardner & Arboh, 1997). The researcher typically has selections as to which type of data would best test the hypothesis. Descriptive methods used are frequency distribution, means, percentages, were used to summarize and organize data. Standard deviation, skewness and analysis of variance were computed to enable interpretation of the data collected. The data was later presented in tables, bar chart, graphs and pie charts. The ordinal logistic regression analysis was used in the first and second objectives (i.e. finance and risk sharing). Ordinal logistic regression is used to find the strength of the result that the independent variables which is measured by use of lickert scale. The general model tested for objective one and two was:

$$\ln\left(\frac{P_{ij}}{P_{i1}}\right) = \beta_{0j} + \beta_{1j}x_{i1} + \beta_{2j}x_{i2} + \varepsilon$$

Where:
ln = natural logarithm
P_{ij} = probability of success
P_{i1} = Probability of failure or 1-P_{ij}
β_{0j} = the intercept/ constant
β_{1j}, β_{2j} = the partial regression coefficients (slope)
X_{i1} = Finance
X_{i2} = Risk sharing

38

ε = Error term

The third objective (the factors that influence PPP model decision) was analyzed using

factor analysis since the objective is to reduce the factors to find the factors that highly

influence the choice of PPP model.

3.9 Measurement of Variables

This helps in the operationalization of both independent and dependent variable.

Table 3.4: Measurement of Variables

Objective	Variable	Type	Operationalization	Operational definition	Measurement	Hypothesis
	Investment in accommodation facilities	Dependent variable	-Increase in capacity -Access -long-term development in infrastructure	Infrastructure of hostel facilities	Likert scale	
1	Finance	Independent variable	-Government development capitation -debt capital -cost of investment	Source of funds to finance accommodation facilities	Likert scale	Increase in finance with the introduction of PPP enhances investment in accommodation facilities
2	Risk sharing	Independent variable	-Variability of revenue -Credit risk	It is the risk associated with investment	Likert scale	Reduction of risk with the introduction of PPP
3	Factors affecting PPP choice	Independent variable	-Time -Policy in place	-Time available -the policy of the University in place	Likert scale	There is no significant relationship between the factors and success in investment through PPP

3.10 Ethical consideration

The researcher sought for the necessary clearance and authorization from the necessary authorities including Karatina University to conduct the studies. Consent was sought from the potential respondents and assured them that the purposes of the research is solely for academic and any confidential information obtained can only be revealed to an authorized party. People's opinions were respected and confidentiality was embrace.

CHAPTER FOUR: DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter presents the study research findings and to test the research hypothesis as outlined in chapter one. The findings are in line with the objectives of the study. This chapter seeks to process and analyze the data collected, interpret and present the findings. Descriptive statistics is chosen to present his findings.

4.2 Data Collection Site

Most of the respondents were from Kenyatta University which was represented by 54.8% (n=17) of the total population.
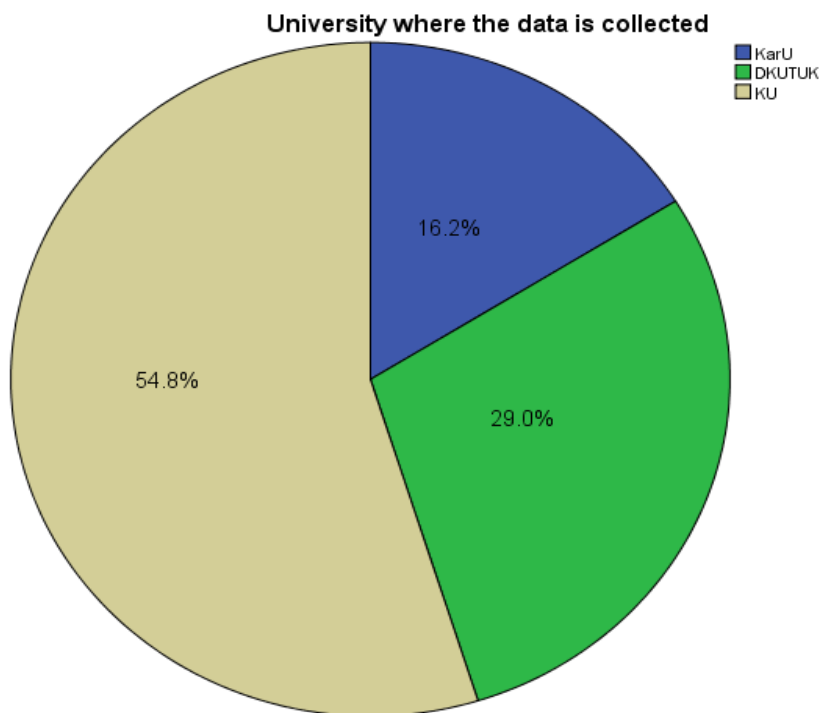
Figure 4.1: Data collection site

4.3 Response Rate

Out of the 34 questionnaires issued to the public Universities, 27 were correctly filled which was equivalent to 79.41%. 4 Out of 6 questionnaires given to the investors were filled which is equivalent to 67%. The relatively high response rate was due to the fact that the researcher collected data on her own which was largely effective since he conveniently explained to the potential respondents the objectives and rationale of undertaking the study. Less than 20.59% of non-respondents from the public university and 33% from the private investors which was explained by the fact that in they were self-administered questionnaires as in the context of the study.

4.4 Demographic Information

The study collected background information of respondents which included the age, gender, and work experience. In addition, the study also collected information on the work experience and terms of employment. The findings are presented in this section.

4.4.1 Age

Findings in figure below shows that 48% (n=15) of the respondents were aged between 25 and 35 years whereas 41% (n=13) of the respondent were aged between 35 and 45 years. The findings therefore show that the youth were the majority in the managements of public universities. The respondent aged between 18 to 25 years and 55 to 65 years accounted for 11%

Age of the respodent

- 18 to 25 years
- 25 to 35 years
- 35 to 45 years
- 55 to 65 years
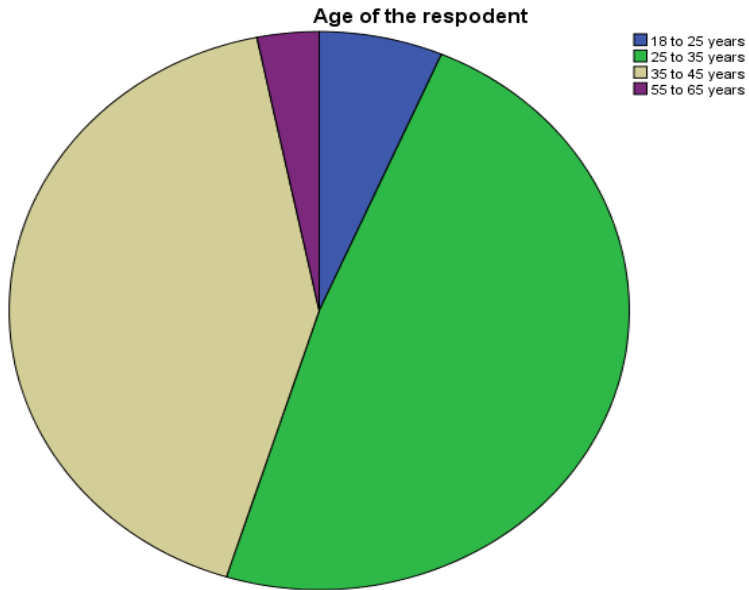
Figure 4.2: Age of the respondent

4.4.2 Gender

It was established from the analysis that 64.5% of the respondents are male while only 35.5% are female.

Gender of the respodent
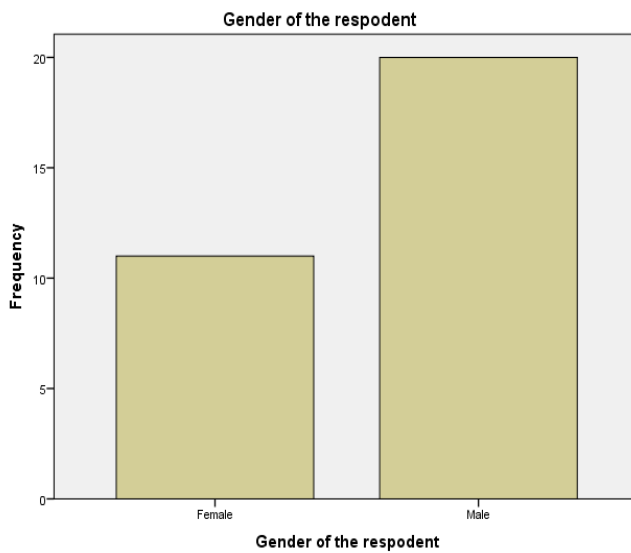
Figure 4.3: Gender of the respondents

4.4.3 Work Experience in the Organization

Majority of the respondents, 29% had worked with Public Universities for a period between two to three years. This is in agreement with the age group as majorities are between 25 to 35 years.

Table 4.1: Work Experience in the organization

	Frequency	Percent
Less than One year	4	12.9
One year – Two years	7	22.6
Two years- Three years	9	29.0
Three years- Four years	3	9.7
Five years and over	8	25.8
Total	31	100.0

4.4.4 Position in the Organization

There are several job positions within organization as shown in Table 4.2 from the analysis. It was established that most of the respondents were support staff of different section representing 32% (n=10), while other respondents were managers representing 25% (n=8) of the sample.

Table 4.2: Position in the Organization

	Frequency	Percent	Cumulative Percent
Management Representative	5	16.1	16.1
Finance Staff	4	12.9	29.0
Accommodation officer	4	12.9	41.9
Manager	8	25.8	67.7
Support staff	10	32.3	100.0
Total	31	100.0	

4.4.5 Terms of Employment

Most of the respondents of the study 93.5% (n= 29) were full time permanent employees while 6.4% consist of staff on contract basis.

Table 4.3: Terms of employment

	Frequency	Percent
Full time permanent	29	93.5
Full time contract	1	3.2
Part time Contract	1	3.2
Total	31	100.0

4.5 PPP and the financing gap of investment

The study intended to determine the extent to which PPP bridges the financing gap of investment in student accommodation in Public Universities in Kenya. Data was collected from the respondents by use of questionnaires using likert scale. This was achieved by testing the following hypothesis:

Hypothesis 1 Ho: There is no statistical significant bridge in the finance gap on investment in student accommodation in Public Universities in Kenya as a result of PPP"

The model for this objective was:

$$\ln\left(\frac{P_{ij}}{P_{i1}}\right) = \beta_{0j} + \beta_{1j}x_{i1} + \beta_{2j}x_{i2} + \beta_{3j}x_{i3} + \beta_{4j}x_{i4} + \beta_{5j}x_{i5} + \beta_{6j}x_{i6} + \varepsilon$$

Where:

ln = natural logarithm
P_{ij} = probability of success
P_{i1} = Probability of failure or 1-P_{ij}

β_{0j} = the intercept/ constant
$\beta_{1j}, \beta_{2j}, \beta_{3j}$ ....= the partial regression coefficients (slope)
$X_{i1}, X_{i2}, X_{i3}, X_{i4}, X_{i5}, X_{i6}$ = Independent variables (Hindrance of investment, Terms of access to finance, Credit facilities, Access to resources, Reduction of budget constraints and Value for money.) respectively
ε = Error term

Table 4.4 indicates the parameter estimates of the finance and investment in student accommodation. It contains the estimated coefficients for the model. The estimates labeled threshold are the intercept equivalent terms of the dependent variable. They are the coefficients for the predictor variables. The coefficient for hindrance of investment, terms of access to finance, credit facilities, access to resources, reduction of budget constraints and value for money (coded 1 = strongly disagree, 2 = disagree, 3=undecided, 4=agree, 5=strongly agree). From the parameter estimate output, in category one had estimates of -65.646 ,0,0,0,0, 32.954, 33.235 respectively while in category two 15.568, 22.185, -16.844, 18.565, 0 and -49.404. The table shows the Wald test statistics at 95% confidence interval show a positive predictor and a p-value that is higher than 0.05 (p-value>0.05). This indicates that the factors selected in PPP bridging financing gap are positive but not statistically significant in influencing the investment in student accommodation.

Table 4.4: Parameter Estimates PPP and the financing gap of investment

		Estimate	Std. Error	Wald	Df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	[PPPleadbetter = 1]	-56.889	108.545	.275	1	.600	-269.633	155.855
	[PPPleadbetter = 3]	-43.281	99.887	.188	1	.665	-239.056	152.494
	[PPPleadbetter = 4]	-25.000	85.222	.086	1	.769	-192.033	142.033
Location	[HinderInv=1]	-65.646	1381.198	.002	1	.962	-2772.744	2641.453
	[HinderInv=2]	15.568	267.274	.003	1	.954	-508.278	539.415
	[HinderInv=4]	16.019	250.581	.004	1	.949	-475.111	507.149
	[HinderInv=5]	0[a]	.	.	0	.	.	.
	[TermsofAccess=1]	0[a]	.	.	0	.	.	.
	[TermsofAccess=2]	-35.826	577.349	.004	1	.951	-1167.409	1095.757
	[TermsofAccess=3]	22.185	330.706	.005	1	.947	-625.987	670.357
	[TermsofAccess=4]	1.790	197.828	.000	1	.993	-385.945	389.526
	[TermsofAccess=5]	0[a]	.	.	0	.	.	.
	[CreditFacilities=1]	0[a]	.	.	0	.	.	.
	[CreditFacilities=2]	-16.844	289.364	.003	1	.954	-583.987	550.298
	[CreditFacilities=3]	-.020	324.780	.000	1	1.000	-636.576	636.537
	[CreditFacilities=4]	-17.123	67.997	.063	1	.801	-150.394	116.148
	[CreditFacilities=5]	0[a]	.	.	0	.	.	.
	[AccelerateInv=1]	0[a]	.	.	0	.	.	.
	[AccelerateInv=2]	18.565	306.777	.004	1	.952	-582.708	619.837
	[AccelerateInv=3]	18.395	215.504	.007	1	.932	-403.986	440.776
	[AccelerateInv=4]	18.728	314.153	.004	1	.952	-597.001	634.456
	[AccelerateInv=5]	0[a]	.	.	0	.	.	.
	[Budget=1]	32.954	1253.094	.001	1	.979	-2423.066	2488.974
	[Budget=3]	.184	115.621	.000	1	.999	-226.428	226.796
	[Budget=4]	.293	81.502	.000	1	.997	-159.447	160.033
	[Budget=5]	0[a]	.	.	0	.	.	.
	[ValueForMoney=1]	-33.235	281.729	.014	1	.906	-585.413	518.943
	[ValueForMoney=2]	-49.404	442.329	.012	1	.911	-916.354	817.546

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[ValueForMoney=3]	-53.337	205.825	.067	1	.796	-456.747	350.073
[ValueForMoney=4]	-35.632	219.160	.026	1	.871	-465.176	393.913
[ValueForMoney=5]	0[a]	.	.	0	.	.	.

Link function: Logit.

From the Likelihood Ratio Tests table 4.5, at 95% confidence interval; hindering investment, terms of access, credit facilities, accelerate investment, budget constraints and value for money were found to have insignificant effect on investment of student accommodation through PPP. The chi-square statistic for the predictor terms of access = 4.234 with an associated p-value of 0.645>0.05, Hindering investment = 2.811 with an associated p-value of 0.832<0.05. All the predictors have a p-value greater than 0.05 (p-value>0.05). From the table the model is formulated as follows:

$$\ln\left(\frac{P_{ij}}{P_{i1}}\right) = \beta_{0j} + \beta_{1j}x_{i1} + \beta_{2j}x_{i2} + \beta_{3j}x_{i3} + \beta_{4j}x_{i4} + \beta_{5j}x_{i5} + \beta_{6j}x_{i6} + \varepsilon$$

Logit $=15.183+ 17.994X_1+19.417X_2+19.535X_3+20.42X_4+17.35X_5+29.22X_6$

Table 4.5: Likelihood Ratio Tests PPP and the financing gap of investment

Effect	Model Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood of Reduced Model	Chi-Square	Df	Sig.
Intercept	15.183[a]	.000	0	.000
Hindering investment	17.994[b]	2.811	6	.832
Terms of access	19.417[b]	4.234	6	.645
Credit Facilities	19.535[b]	4.352	9	.887
Accelerate Investment	20.426[b]	5.243	9	.813
Budget	17.356[b]	2.173	9	.988
Value for money	29.422[b]	14.239	12	.286

Table 4.6 indicates the model fitting information results that compares the final model against the baseline to see whether it has significantly improved the fit to the data. The Model fitting Information table gives the -2 log-likelihood values for the baseline and the final model, and also performs a chi square to test the difference between the -

2log likelihood of the two models. From the table, the statistically significant chi-square statistic is 0.000 (p<0.05). This indicates that the final model gives a significant improvement over the baseline intercept-only model. This means that the model gives better predictions.

Table 4.6: Model Fitting Information on PPP and the financing gap of investment

Model	-2 Log Likelihood	Chi-Square	Df	Sig.
Intercept Only	56.100			
Final	.000	56.100	19	.000

Link function: Logit.

The tables 4.7 indicate the goodness-of-fit. It contains Pearson's chi-square statistic for the model. The statistics are used to test whether the observed data are consistent with the fitted model. From the table, the P-value is 1 which is large and conclude that the data and the model predictions are similar, meaning it is a good model.

Table 4.7: Goodness-of-Fit on PPP and the financing gap of investment

	Chi-Square	Df	Sig.
Pearson	.006	50	1.000
Deviance	.012	50	1.000

Link function: Logit.

Table 4.8: Pseudo R-square Statistics constitutes a "good" R^2 value that depends upon the nature of the outcome and the explanatory variables. The table shows the pseudo R^2 values (Cox and Snell = 83.6%) which indicate that financing gap bridged by PPP explains the variation in student accommodation investment. The higher R^2 is an indication that a model provides a better fit**.**

Table 4.8: Pseudo R-square on PPP and the financing gap of investment

Cox and Snell	.836

Link function: Logit.

The table 4.9 shows test of parallel lines that compares the ordinal model which has one set of coefficients for all thresholds, to a model with a separate set of coefficients for each threshold. It is used to test whether choice of the ordinal logistic regression is appropriate. The null hypothesis is that the lines are not parallel. From the table, chi-Square statistics had a p-value 1.000 > 0.05 thus the null hypothesis is rejected, we accept the alternative hypothesis that the lines are parallel and conclude that the model is appropriate.

Table 4.9: Test of parallel lines on PPP and the financing gap of investment

Model	-2 Log Likelihood	Chi-Square	Df	Sig.
Null Hypothesis	.000			
General	.000[b]	.000	38	1.000

The null hypothesis states that the location parameters (slope coefficients) are the same across response categories.

a. Link function: Logit.

4.6 PPP and risk sharing

The study intended to establish the effect of risk sharing through PPP in student accommodation investment in Public Universities in Kenya.

Hypothesis 2 Ho: There is no significant relationship between risks sharing brought by PPP and investment in student accommodation in Public Universities in Kenya.

The model for this Objective is:

$$\ln\left(\frac{P_{ij}}{P_{i1}}\right) = \beta_{0j} + \beta_{1j}x_{i1} + \beta_{2j}x_{i2} + \beta_{3j}x_{i3} + \beta_{4j}x_{i4} + \beta_{5j}x_{i5} + \beta_{6j}x_{i6} + \varepsilon$$

Where:

$\ln$ = natural logarithm
P_{ij} = probability of success
P_{i1} = Probability of failure or $1-P_{ij}$
β_{0j} = the intercept/ constant

$\beta_{1j}, \beta_{2j}, \beta_{3j} \ldots$ = the partial regression coefficients (slope)

$X_{i1}, X_{i2}, X_{i3}, X_{i4}, X_{i5}, X_{i6}$ = Independent variables (risk transfer, skills and expertise, type of risk, risk minimization, SWOT analysis and additional revenue) respectively

ε = Error term

The 4.10 indicate the parameter estimates of the risk sharing through PPP and investment in student accommodation. The table shows the coefficient (β) for each predictor variable for each alternative category of the outcome variable. The predictors indicate a high p-value 0.05. From the observed significance levels, it indicates that risk transfer, skills and expertise, type of risk, risk minimization, SWOT analysis and additional revenue due to risk sharing are related to investment in student accommodation. The table shows the estimates in category one as 0, -27.674, 1.876, 0 and 0 respectively while in category two -43.580, 4.723, 10.863, -18.077 and 4.728 respectively. At 95% confidence interval, Wald test statistics show a positive predictor and a p-value that is higher than 0.05 (p-value>0.05). This indicates that the factors selected in risk sharing through PPP are positive but not statistically significant in influencing the investment in student accommodation.

Table 4.10: Parameter Estimates on the effect of risk sharing through PPP

		Estimate	Std. Error	Wald	Df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	[PPPleadbetter = 1]	-56.058	117.856	.226	1	.634	-287.051	174.935
	[PPPleadbetter = 3]	-42.693	110.865	.148	1	.700	-259.984	174.598
	[PPPleadbetter = 4]	-24.463	100.168	.060	1	.807	-220.790	171.863
Location	[RiskTransfer=2]	-43.580	347.859	.016	1	.900	-725.371	638.212
	[RiskTransfer=3]	9.090	292.018	.001	1	.975	-563.254	581.434
	[RiskTransfer=4]	-37.440	310.887	.015	1	.904	-646.767	571.888
	[RiskTransfer=5]	0[a]	.	.	0	.	.	.
	[SkillsandExpertise=1]	-27.674	294.367	.009	1	.925	-604.622	549.274
	[SkillsandExpertise=2]	4.723	219.027	.000	1	.983	-424.562	434.007
	[SkillsandExpertise=3]	-52.687	198.880	.070	1	.791	-442.484	337.110
	[SkillsandExpertise=4]	13.349	184.826	.005	1	.942	-348.904	375.601
	[SkillsandExpertise=5]	0[a]	.	.	0	.	.	.
	[TypeofRisk=1]	1.876	172.762	.000	1	.991	-336.731	340.483
	[TypeofRisk=2]	10.863	217.520	.002	1	.960	-415.469	437.195
	[TypeofRisk=3]	22.799	226.627	.010	1	.920	-421.381	466.980
	[TypeofRisk=4]	19.489	175.947	.012	1	.912	-325.361	364.338
	[TypeofRisk=5]	0[a]	.	.	0	.	.	.
	[RiskMinimization=2]	-18.077	423.861	.002	1	.966	-848.829	812.675
	[RiskMinimization=3]	-11.937	226.730	.003	1	.958	-456.320	432.446
	[RiskMinimization=4]	-11.937	278.003	.002	1	.966	-556.813	532.939
	[RiskMinimization=5]	0[a]	.	.	0	.	.	.
	[SWOTanalysis=2]	4.728	609.140	.000	1	.994	-1189.164	1198.621
	[SWOTanalysis=3]	30.369	507.085	.004	1	.952	-963.499	1024.237
	[SWOTanalysis=4]	-16.178	77.886	.043	1	.835	-168.832	136.476
	[SWOTanalysis=5]	0[a]	.	.	0	.	.	.
	[Revenue=2]	0[a]	.	.	0	.	.	.
	[Revenue=3]	15.585	239.321	.004	1	.948	-453.475	484.646
	[Revenue=4]	18.415	170.821	.012	1	.914	-316.389	353.218
	[Revenue=5]	0[a]	.	.	0	.	.	.

Link function: Logit.

Table 4.11 is the Likelihood Ratio Tests, at 95% confidence interval. From the table

skills and expertise, types of risk have a significant effect on investment of student

accommodation through PPP. The chi-square statistic for the predictor skills and expertise = 0.00 with an associated p-value of 0.00<0.05 and types of risks = 0.00 with an associated p-value of 0.000<0.05. Risk Transfer, Risk Minimization, SWOT analysis and Revenue have do not have statistical significant effect on investment of student accommodation through PPP as shown by a p-value (p-value>0.05). From the likelihood ratio test the model for this objective is as follows:

Logit=$21.221+27.372X_1+18.972X_2+20.615X_3+26.632X_4+25.473X_5+24.491X_6$

Table 4.11: Likelihood ratio test statistics on risk sharing through PPP

Effect	Model Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood of Reduced Model	Chi-Square	Df	Sig.
Intercept	21.221^a	.000	0	.000
Risk Transfer	27.372^b	6.150	6	.407
Skills and Expertise	18.972^b	.000	12	.000
Type of Risk	20.615^b	.000	12	.000
Risk Minimization	26.632^b	5.410	9	.797
SWOT analysis	25.473^b	4.251	9	.894
Revenue	24.491^b	3.269	6	.774

Table 4.12 shows the model fitting information results that compares the final model against the baseline to see whether it has significantly improved the fit to the data. The Model fitting Information table gives the -2 log-likelihood values for the baseline and the final model, and also performs a chi square to test the difference between the -2log likelihood of the two models. From the table, the statistically significant chi-square statistic is 0.000 (p<.0005) which indicates that the final model gives a significant improvement over the baseline intercept-only model meaning that the model gives better predictions.

Table 4.12: Model Fitting Information on the effect of risk sharing through PPP

Model	-2 Log Likelihood	Chi-Square	Df	Sig.
Intercept Only	56.100			
Final	.000	56.100	19	.000

The tables 4.13 below indicate the goodness-of-fit which contains Pearson's chi-square statistic for the model. The statistics are intended to test whether the data is consistent with the fitted model. The P-value is 1 which is large. Thus we accept the null hypothesis and conclude that the data and the model is good. The results indicate that the model is statistically significant in explaining the effects of risk sharing through PPP on investment of student accommodation in Kenyan public universities. It also explains variations in investment in accommodation in Public Universities at a level of significance of 0.05.

Table 4.13: Goodness-of-Fit on the effect of risk sharing through PPP

	Chi-Square	Df	Sig.
Pearson	.006	44	1.000
Deviance	.013	44	1.000

Table 4.14: Pseudo R-square Statistics constitutes a "good" R^2 value that depends upon the nature of the outcome and the explanatory variables. The table shows the pseudo R^2 values (Cox and Snell = 83.6%) indicating that risk sharing explains the variation between student accommodation investment through PPP in public universities. The high R^2 indicates that a model containing only risk sharing is a good predictor of the outcome of investment of student accommodation through PPP.

Table 4.14: Pseudo R-Square on the effect of risk sharing through PPP

Cox and Snell	.836

The table 4.15 shows test of parallel lines that compares the ordinal model which has one set of coefficients for all thresholds, to a model with a separate set of coefficients for each threshold. It is used to test whether choice of the ordinal logistic regression is appropriate. The null hypothesis is that the lines are not parallel. The chi-Square statistics had a p-value 1.000 > 0.05 thus the null hypothesis is rejected, we accept the alternative hypothesis that the lines are parallel and conclude that the model is appropriate.

Table 4.15: Test of parallel lines on the effect of risk sharing through PPP

Model	-2 Log Likelihood	Chi-Square	Df	Sig.
Null Hypothesis	.000			
General	.000[b]	.000	38	1.000

4.7 Factors that influence the choice of PPP model

The research intended to examine the factors that influence the choice of PPP model in Public Universities in Kenya. To attain the objective, factor analysis was conducted to test the hypothesis that:

Hypothesis 3 Ho: There is no significant relationship between the factors and success in investment through PPP.

The table 4.16 below shows Kaiser-Meyer-Olkin Measure of Sampling Adequacy is 0.523 meaning that the sample is adequate for factor analysis. Bartlett's Test of Sphericity indicates a significance of the model by showing p-value of 0.00<0.005.

**Table 4.16: KMO and Bartlett's Test on factors that influence the choice of PPP model**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.523
	Approx. Chi-Square	81.452
Bartlett's Test of Sphericity	Df	15
	Sig.	.000

The table 4.17 indicates that component 1 and 2 account for 73.605% of the total variation. It means that they account for 73% of the choice of PPP model.

Table 4.17: Total Variance Explained on factors that influence the choice of PPP model

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.998	49.961	49.961	2.998	49.961	49.961	2.575	42.920	42.920
2	1.419	23.643	73.605	1.419	23.643	73.605	1.841	30.685	73.605
3	.625	10.422	84.027						
4	.541	9.019	93.046						
5	.303	5.046	98.092						
6	.114	1.908	100.000						

The figure 4.4 shows a scree plot graphs. It shows the eigen value against the factor number. From the third factor onwards, it can be noted that the line is almost flat, meaning the each successive factor is accounting for smaller and smaller amounts of the total variance of influencing the choice of PPP model
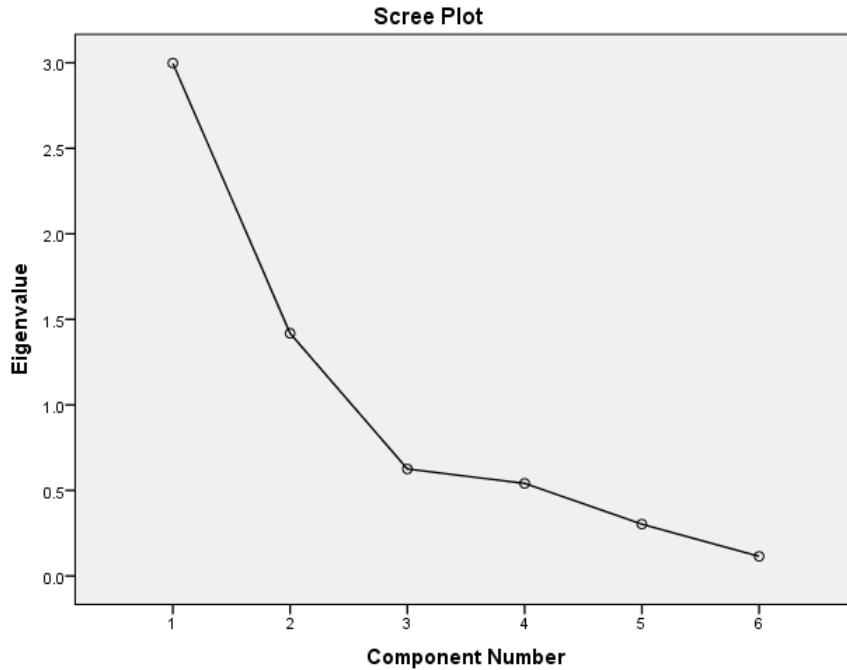
Figure 4.4: Scree plot

The table 4.18 below shows that only two components that influence highly on the choice of PPP model. Component 1 has high correlations with University policy (0.859) government regulation (0.744) and PPP policy in place (0742) the study interprets this to mean the need for clear PPP policy guidelines. While component 2 has high correlations with time when the investment is needed (0.749) and cost involved in an investment (0.683) the study interprets this to mean the need for embracing PPP to curb budget constraints.

Table 4.18: Component Matrix

	Component	
	1	2
Government Regulation	.744	-.045
University policy	.859	-.320
Private Investor expertise	.686	-.438
Time of need	.569	.749
PPP policy in place	.742	-.307
Cost involved	.601	.683

Table 4.19 is a rotated component matrix. It shows two component 1 and 2. It indicates the variable with the strongest association to the underlying latent variable. Component 1, is government regulation, with a factor loading of 0.901 which has strong association for a factor analysis in the choice of PPP. Two other variables, private investor expertise (.814) and PPP policy in place (0.794) are also associated with component 1. Based on the variables loading highly onto component 1, its concluded that they influence the choice of PPP model. Component 2 is time when the investment is required, with a factor loading of 0.935 which has strong association for a factor analysis in the choice of PPP. Cost of investment (0.895) is also associated with component 2. Based on the variables loading highly onto component 1 and 2, it's concluded that they influence the choice of PPP model.

Table 4.19 Rotated Component Matrix on factors that influence the choice of PPP model

	Component	
	1	2
University policy on Investment	.660	.347
Government regulation	.901	.171
Private investor expertise	.814	-.020
Time when the investment is required	.099	.935
PPP policy in place	.794	.120
Cost of investment	.161	.895

CHAPTER FIVE: DISCUSSION OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This Chapter looks into the summary of the findings and then draws the conclusions of the entire research before putting across relevant recommendations.

5.2 Discussion of findings

The findings are discussed as per the objective of the study and are to assist in testing the hypothesis of the study. The findings of the study revealed that the respondents' rate on finance, risk sharing and factors that influence PPP model was good.

5.2.1 Bridging of financing gap of investment in student accommodation and PPP

The first objective of the study was to determine the extent to which PPP bridge the financing gap of investment in student accommodation in Public Universities in Kenya. In order to ascertain the relationship between PPP bridging the financing gap and investment of student accommodation, the researcher conducted an ordinal logistic regression. The findings, this indicate that PPP in bridging finance gap has a statistically significantly effect on investment of student accommodation in public universities since the p-value is 0.000 (p-value< 0.005). At 95% confidence interval; hindering investment, terms of access, credit facilities, accelerate investment, budget constraints and value for money were found to have insignificant effect on investment of student accommodation through PPP. The chi-square statistic for the predictor terms of access = 4.234 with an associated p-value of 0.645>0.05, Hindering investment = 2.811 with an associated p-value of 0.832<0.05. All the predictors have a p-value greater than 0.05 (p-value>0.05).

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This shows that involvement in PPP will enable the Public universities to be able to access to credit facilities that are available with cheaper rates thus increase in investment in accommodation.

The findings also show that acceleration of investment in student accommodation increases with the increase in access to resources brought about by PPP and also reducing budget constraints on capital intensive projects. The findings also agree that the terms of access to finance are enhanced with PPP together with increasing value for money in economic development of Public Universities. The findings are in agreement Shah (2005) who found that PPPs produced most savings and improved efficiency and effectives of service thus leading to value for money. Similarly, Nikolic & Maikisch (2006) found that the formation of PPPs can assist governments, in partnership with the private sector, to address financial and service delivery challenges.

5.2.2 Risk sharing through PPP and student accommodation investment

The study was to establish the effect of risk sharing through PPP in student accommodation investment in Public Universities in Kenya. The study aimed to test the null hypothesis that there was no the effect of risk sharing provided by PPP in enhancing student accommodation investment in Public Universities in Kenya. In order to ascertain the relationship between risk sharing through PPP and student accommodation investment in Public University, the researcher conducted an ordinal logistic regression. The study found that risk sharing through PPP have a significant relationship (p=0.000<0.05) with investment in student accommodation at 95% confidence level.

The findings shows that risk should be shared to the party that can best bear it and both partners should be aware of the risks involved know how risk can be minimized to ensure effective risk sharing. With PPP management of Public Universities are able to gain skills and expertise from the private investors. This is in agreement with Goldsmith and Eggers (2004) who stated that risk identification, allocation, and negotiation goal is "assigning risk to the organization that best understands and can control the risk and maximizes public benefit". From the findings risks involved when identified and SWOT analysis leads to success of risk sharing in PPP projects.

5.2.3 Factors that influence the choice of Public Private Partnerships (PPPs) model

The study aimed to examine the factors that influence the choice of Public Private Partnerships (PPPs) model in Public Universities in Kenya. To achieve this, the study conducted factor analysis to identify the factors that influences most on the choice of PPP model. It was found that University policy and government regulation are the factors that highly influence the choice of PPP model. This is in agreement with Wycliffe (2012) who that government involvement in providing good governance and providing regulations that guiding in the implementation of PPP models. Both University policy and government regulation were found to be influence transparency in the choices of the PPP model chosen which are more cost effective and efficient. The finding indicate that expertise of the private investor, time and PPP Policy in place do not significantly influence the choice of PPP model in investment.

5.3 Conclusions

From the study it's concluded that PPP bridges the finance gap in Public University on investment not only in student accommodation but also in other infrastructure. Also

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embracing PPP will enable the government to bridge the deficiency of social needs brought by scarcity of public resources. The study concludes that through PPP risk is minimized thus increasing investment of student accommodation and if embraced the challenge of bed capacity will be a thing of the past in public universities. From the study, the choice of PPP model is greatly influenced by government regulation, PPP policy and university policy on investment. The Public Universities are left to channel the available resources to their core functions when PPP is embraced.

5.4 Recommendations

i. The Government, Public universities and other public institutions should advocate for more PPP in capital intensive projects that cannot be financed through the internal funds due to budget constraints

ii. Public Institutions should develop and implement PPP policies that are enforceable and these will improve provision of social needs to the public that are more efficient and effective.

iii. PPP awareness should be created to both public and private by showing the win-win side of the concession agreement by increasing the will power of implementation between both parties. Government should also provide incentive to private parties to reap value for money for both parties.

5.5 Suggestions for further research

Further research should be done on the effects PPP to evaluate on their performance in provision of social needs. Effects of risk in investment through PPP to be researched

further to find ways in which the risks can be minimized thus increasing investment of capital intensive projects.

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APPENDICES

APPENDIX I: INTRODUCTION LETTER

Dear respondent,

I am an MBM student at Karatina University. I am currently undertaking a research on "Re-engineering investment in student accommodation through Public Private Partnership in Public Universities".

I kindly request you to provide the required information to the best of your knowledge; the information provided will be treated in a confidential manner and will only be used for academic purpose.

The questionnaires are intended to collect information for academic purpose on the topic: Re-engineering investment in student accommodation through Public Private Partnership in Public Universities. Confidentiality of the information acquired will be adhered to.

Thank you

Yours faithfully

BETH WAMBUI KIMANI
B222/1979/P/13

APPENDIX II: WORK PLAN

Activities in Months	Jan 15-Feb 15	Mar 15 – Jul 15	Aug-15	Sep-15	Oct-15
Concept development and defense					
Proposal development and defense					
Pre-test instrument					
Data collection					
Data coding and entry					
Data analysis					
Writing draft report					
Thesis defense					
Submit final thesis					

APPENDIX III: BUDGET

No.	Particulars	Amounts – Kshs.	Amounts - Kshs
1	Proposal Preparation		
	Literature research	3,000.00	
	Printing Reference Research Proposal	5,000.00	
	Printing Research Proposal	2,000.00	
	Stationery	3,000.00	13,000.00
2	Other expenses		
	Travelling expenses	8,000.00	
	Photocopies of questionnaire	1,500.00	9,500.00
3	Actual Data Collection.		
	Photocopy of questionnaires	4,500.00	
	Daily Subsistence Expenses	30,000.00	34,500.00
4	Data Processing	3,000.00	3,000.00
5	**Binding:** Final Project	10,000.00	10,000.00
	Grand Total		**80,000.00**

APPENDIX IV: QUESTIONNAIRES

Section A: Background information

Please put an (X) next to the appropriate answer.

1. Please indicate your age

18-25 years	[ ]
25-35 years	[ ]
35-45 years	[ ]
45-55 years	[ ]
55-65 years	[ ]
65 years and above	[ ]

2. Gender:

Female	[ ]
Male	[ ]

3. Please indicate your period of service/ employment

Less than One year	[ ]
One year – Two years	[ ]
Two years- Three years	[ ]
Three years- Four years	[ ]
Five years and over	[ ]
Other (Specify)	[…………………………..]

4. Please indicate your position in the organization

Management Representative	[ ]
Finance staff	[ ]
Accommodation officer	[ ]
Manager	[ ]
Support Staff	[ ]
Other (Specify)	[…………………………..]

5. Please indicate your terms of employment

Full time permanent	[ ]
Full time contract	[ ]
Part-time permanent	[ ]
Part-time contract	[ ]
Other (Specify)	[…………………..]

Section B

Please read each statement and then put a cross (X) in the box that best indicates how strongly you agree or disagree with the statement. For example: if you put a cross (X) in 1, it means you strongly disagree

1. Strongly Disagree
2. Disagree
3. Undecided
4. Agree
5. Strongly Agree

PART I: Provision of student accommodation through PPP

		1	2	3	4	5
1.	With PPP, finance is enhanced in terms access, availability and low cost					

PART II: Bridging of financing gap of investment in student accommodation and PPP

		1	2	3	4	5
1.	Finance is a factor that hinders investment in accommodation infrastructure by the Public University					
2.	With the inclusion of private investors through PPP, credit facilities will be less costly and available to the Public University					
3.	This form of partnership would enable the University to access capital or resources necessary to accelerate investment in accommodation facilities growth					
4.	PPP would enable the University to provide the student with better accommodation facilities					
5.	Through PPP University budget constraints on development of accommodation facilities will be minimized leading to quick achievement of strategic plan					
6.	Value for money in economic development could be achieved through PPPs in University's investments.					

PART III: Risk sharing through PPP in student accommodation investment and PPP

		1	2	3	4	5
1.	It is important that risks be transferred to a partner that could best bear it without jeopardizing economic growth opportunities.					
2.	PPP would enable the University management to gain skills and expertise from the private sector					
3.	Skills and expertise transfer is necessary to improve capacity of University to render student accommodation in an efficient, effective, economical and equitable manner thus leading to sharing of risk in terms of revenue variations					
4.	The Public-private partnership model must show the type of risks involved in PPPs transactions					
5.	Partners of PPP must know how the risks should be minimized.					
6.	Conducting SWOT analysis bring success to PPPs.					
7.	With PPP the University can be able to generate additional revenue					

PART IV: Factors that influence the choice of Public Private Partnerships (PPPs) model

		1	2	3	4	5
1.	University Policy is one of the factors that influence the choice of PPP					
2.	In choosing the PPP model to be implemented Government regulation is one of the factor to consider					
3.	The private investor expertise influences the PPP model used					
4.	Consideration of time when choosing the PPP model is critical					
5.	PPP Policy in place dictates the PPP model to be selected by the public institution					
6.	A factor that influences the model of PPP is cost of investment					