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Research Productivity in Africa: Empirical Studies from Slected Private Universities in Uganda

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Abstract: *This study analysed the influence of research productivity in Private Universities in Uganda. The objectives included; to find out whether the organisational culture has an effect on Research productivity, to establish the effect of employee job satisfaction on research productivity and to establish the relationship between resource availability and research productivity. Research Productivity in universities has remained low in publication counts, affecting the web rankings of different universities. As such determining academic staff tenure, promotion and the reward systems becomes complex. Case study design using quantitative and qualitative approach was adopted to explore the objectives .A questionnaire was administered to only academic staff (N=148) and the response rate was at 70%. Interviews were conducted for the 3 Librarians; 3 Research Unit Directors and 3 Post Graduate Directors. The analysis was done using the Statistical Package for Social Scientists (SPSS) software and 75 variables were analyzed in the dimensions of culture, employee job satisfaction, resource availability. The Pearson correlation coefficient was used to ascertain the relationship between the variables as well answering the hypothesis. The measure of reliability of the instruments took on the Cronbach Alpha (0.9).The findings showed academic staffs were not quite sure of the research, person and reward culture, and employee job satisfaction reflected agreement to the variables where a level of job insecurity is evident. Resource availability revealed inadequate information about the available information to support the research. In conclusion research outputs were still relatively low in Universities, academics staffs" involvement in research was influenced by job insecurity, there seems to be little or no information about the available resources that foster the growth of research. The study recommended establishment of reward systems, development of proper communication procedures and establish networks with other institutions.*

Keywords : Research ; Africa ; Empirical Studies ; Productivity ; Private Universities ; Uganda ; Research Productivi

1.1 Introduction

Research productivity in Universities is a new trend that has a project related aspect in the academia where time, quality and cost are emphasised for the academic staff to remain relevant to their profession. The research output can be described in terms of quantity and quality of finished research works and publications produced by academic lecturers during a specific period (Lertputtarak, 2008). The study focused on the factors that influence research productivity in Private Universities in Uganda. The factors considered as the independent variables included the organisational culture, employee job satisfaction and resource availability while the dependent variables were University research productivity. The researcher considered the research productivity model and used it hand in hand with the institutional theory to explain the relationship between the variables in the study where the samples in University education were voluminous but the focus was on Private Universities that are chartered; to have an in depth analysis of the selected institutions as recommended by (Yin,1984).

1.2 Background to the Study

Different authors have made arguments for approaching the background notably Mugenda and Mugenda, (1999) who emphasises the „funnel approach" tackling the background from the broader to the narrow perspective and while Amin, (2005) emphasises the four perspectives approach of historical, theoretical, conceptual and contextual to pin down the study. In this study both approaches were used to establish a foundation for research productivity in the context of Private Universities in Uganda.

1.2.1 Historical Perspective

Considering the historical perspective of this study; Germany, specifically Prussia, at the centre of the transformation process of Universities as teaching institutions devoted to the transmission of knowledge to places for research. In the early 19th century the

humanities and specifically the classical languages changed approach. The German idealist philosophers believed that a balanced development of state and society was only feasible with educated citizens trained as students in a neutral atmosphere of truth-seeking; resulting into persons like Alexander von Humboldt who took the task of incorporating these ideals into plans for a new University, and in 1809 the University of Berlin was established.

In 1820, classical language faculties at Berlin and a few other German Universities had fixed attention to scholarly researches that called for original texts i.e. as philology and linguistics. With this twist in events, faculties with access to great libraries and museums, such as Humboldt University, automatically had an advantage over those at Universities in smaller cities. Considering the rise of technology-based industry in the German states during the
1860s, also accelerated by German unification in 1870, the scientific research faculties at these Universities became an asset to the country‟s industrial concerns. The Act of 1862 saw the creation of the first quasi-research Universities in the United States (the land grant
colleges) whereby lands belonging to the US government were transferred to the states on condition that proceeds from their sale of land was to be used to establish colleges which could translate into Universities aimed at teaching the practical science, in agriculture and the mechanical sciences. Faculty members in the land grant colleges were expected to conduct research in their areas of specialty (primarily in agriculture) and initiate outreach programs to disseminate the results of their investigations to farmers in their respective states.

It was until 1863 when the United States officially recognised the growing importance of science with the creation of the NAS, a self-perpetuating organization of leading US scientists chartered to provide advice, as per the request of the US government. In 1916 a new research arm, the National Research Council (NRC) was formed. Since the 1950s, NAS and its sister organizations, the National Academy of Engineering and the Institute of Medicine, issued numerous authoritative reports through NRC on a wide range of science and technology issues at the request of one or more executive branch agencies or the US Congress. Despite the precedent established by the Morrill Act, the first US Universities whose faculties were expected to engage in research as well as teaching were created only in the aftermath of the Civil War. This expanded role of US colleges initially occurred when those institutions, established during the colonial period, began to transform themselves into research Universities.

The early 1870s saw the establishment of the Jefferson Physical Laboratory Harvard University. It became the first American University facility devoted exclusively to research and teaching in a scientific discipline. However, newer Universities founded after the Civil War soon took over the lead from the old line Eastern seaboard institutions in initiating the tradition of research Universities in the United States. Johns Hopkins University, founded in
1876, was the first American University to be established from the outset as a research University; and produced more graduates with PhD degrees than Harvard and Yale combined in its first two decades. By the turn of the century, several state Universities had established their credentials as leading research institutions, including the Universities of California, Michigan, Wisconsin, Minnesota, and Illinois. By the time of World War I research Universities had joined federal government laboratories as sites were organized,
„„professionalized"" scientific research was conducted in the United States. By 1930s the industrial sector had come to dominate research in the country, although as with the government sector, the bulk of its research was applied. In contrast, Universities and a few Private, non-profit institutions such as the Carnegie Institution and the Battelle Foundation accounted for virtually all of the country's basic research.

In Africa it was not until the end of the Second World War that more systematic efforts were undertaken by colonial governments to establish higher education. In the British colonies, the new era started with the establishment of University colleges in Nigeria (Ibadan in 1947), Ghana (Legon in 1948), Sudan (Khartoum in 1949 from the merger of the Gordon Memorial College and the Kitchener Medical School), and Uganda (Makerere was upgraded in 1949). In addition, in Kenya the Royal Technical College was established in Nairobi in 1951, and further south the University College of Salisbury was formed in 1953 and renamed two years later as the University College of Rhodesia and Nyasaland. Meanwhile, Fourah Bay College became the University College of Sierra Leone. Most of these new or upgraded University colleges served as regional Universities and were affiliated with and awarded degrees of the University of London (Zeleza, 2006).The levels of productivity are noted in Creamer (1998) where faculty publishing and productivity could be demonstrated as an index of departmental and institutional prestige. Considering the continental perspective; a study of Bloom, Canning & Chan, (2006: 4) found;The output of academic research in Africa remains weak. In 1995, the region was responsible for just 5,839 published academic papers (South Asia produced 15,995 published papers and Latin America and the Caribbean 14,426) Only the middle East and North Africa produced fewer papers than the sub Saharan Africa, yet the former's total had doubled since 1981, while sub Saharan Africa"s had risen by one third.
This places the continent far below in the area of research as a key priority in University growth. Similarly, in the original East African countries research productivity is growing but at a slow rate with Uganda not an exception

National Council of Higher Education's Executive Director, Kasozi in a report (2007)" exclaimed that. „"most of the little research conducted is linked to pursuance of higher degrees"". Kuchma, (2013) concretises the problem in her presentation indicating that Africa is still lagging behind in writing and use of available research oriented websites and more so Uganda. For example only two Universities in Uganda have taken an initiative to register with open access website. Considering the web metrics 2013 that displays the best 25
Universities in Africa the Ugandan Private Universities under study are not inclusive posing a concern on the research works done by different Universities.

1.2.2 Theoretical perspective

The research productivity model of Bland et. al. (2002) and the institutional theory were used to explain the factors that influence research productivity; Institutions have been defined differently by authors (Jepperson, 2001) asserts that institutions are organised and established procedures with a reflection of a given set of standards which focus on patterns of interactions. He also emphasises that they are supported by a specific mechanism of control. While (Scott, 2001; Fligsten, 2001) share their views in relation to the regulation and human cognition with elements of rules and shared meanings that contribute towards social relationships.
In this study ,this definition will be adopted to show the influence of the human cognition/behaviour in relation to research productivity in Private Universities in Uganda.
The establishment of rules and procedures in these Institutions to enhance research outputs and how these are followed by the academic staff was worth exploring to achieve the objectives of this research. The Bland et al model recognises the institutional, individual and leadership aspects in the organisation to appreciate productivity which were appropriate for this research.

1.2.3 Conceptual perspective

Conceptually, a University as defined by Neave (1998) originates from both legal Latin "Universitas", meaning "Community", and in classical Latin "Universus", meaning "Totality". The University's communities at the moment encompass a great number of constituencies both internally and externally. Internally they include students and staff (the community of scholars), administration and management, while externally they include research communities, alumni, businesses, social movements, consumer organisations, governments and professional associations. The study took on the staff at the Masters Programmes and Ph.D. as the possible community of scholars who most likely contributed to the research outputs more than the other staff at undergraduate and students(State of HEI,
2010) .
University growth has developed gradually from the global perspective because of the forces at play; the forces are varied and can be attributed to this transformation in University education. By 1970, Africa had only six Universities producing graduates to fill up the positions as civil servants. By 1987, Uganda had only one University which was public, with about 10,000 students; at the moment there are more than thirty Universities with the student enrolment growing very fast for example; from 2006 to 2010 student numbers grew by 34.1% in the four year period (National Council for Higher Education, 2011&State of HE, 2010). The development of Private education in Uganda can be traced far back in 1925 closely associated with the first Private school that was established due to the growing dissatisfaction with the then curricular offered at missionary schools (Ssekamwa, 2000) as quoted in Mugabi (2009). The Universities singled out in this study had the following characteristics; they existence by the mandate of The Universities and other Tertiary Institutions Act, 2001, they have existed for at least more than ten years, with their activities spreading out of their main established campuses to study centres all over the whole country. The Universities have also been chartered by the National Council of Higher Education (NCHE) which provides them with the legitimate power from the government of Uganda to conduct Masters and Ph.D. Programmes. Ndejje University was established in 1992, Nkumba was established in 1999 and Islamic University in Uganda (IUIU) was established in 1988 as shown in **appendix iii**.

1.2.4 Contextual perspective

However, as asserted from the findings of Wamala & Ssembatya,(2013) which showed that out of a sample of 534 PhD holders slightly less than 27.9% had published articles while
20.2% had co-authored books, book chapters and monographs. This is supported by the
UNCST, (2010) findings where 66% of the doctoral holders aged below 70 years (graduate cohort 1990-2010) who (co) authored journal articles by December 2010 had less than ten publications.

Ndejje University, Nkumba University and Islamic University in Uganda, may not be any different in the area of research. Kasozi, (2013) classifies them as teaching institutions and not Universities because they have not been visible in the research

domain (State of HE,
2010). This posed the question that had to be answered by this study; what are the factors that influence research productivity in the Ugandan Private Universities?

2.0 Literature Review

2.1 Theoretical review

In this review concepts, together with their definitions, and existing theory that was used in this study were analysed in detail. Concepts like research, research productivity which were conceived from the bland et al model of research productivity were examined. The theoretical review enabled the study to connect the researcher to existing knowledge and specify which key variables influenced research productivity in private Universities in Uganda.

2.1 .1 Research Productivity theory

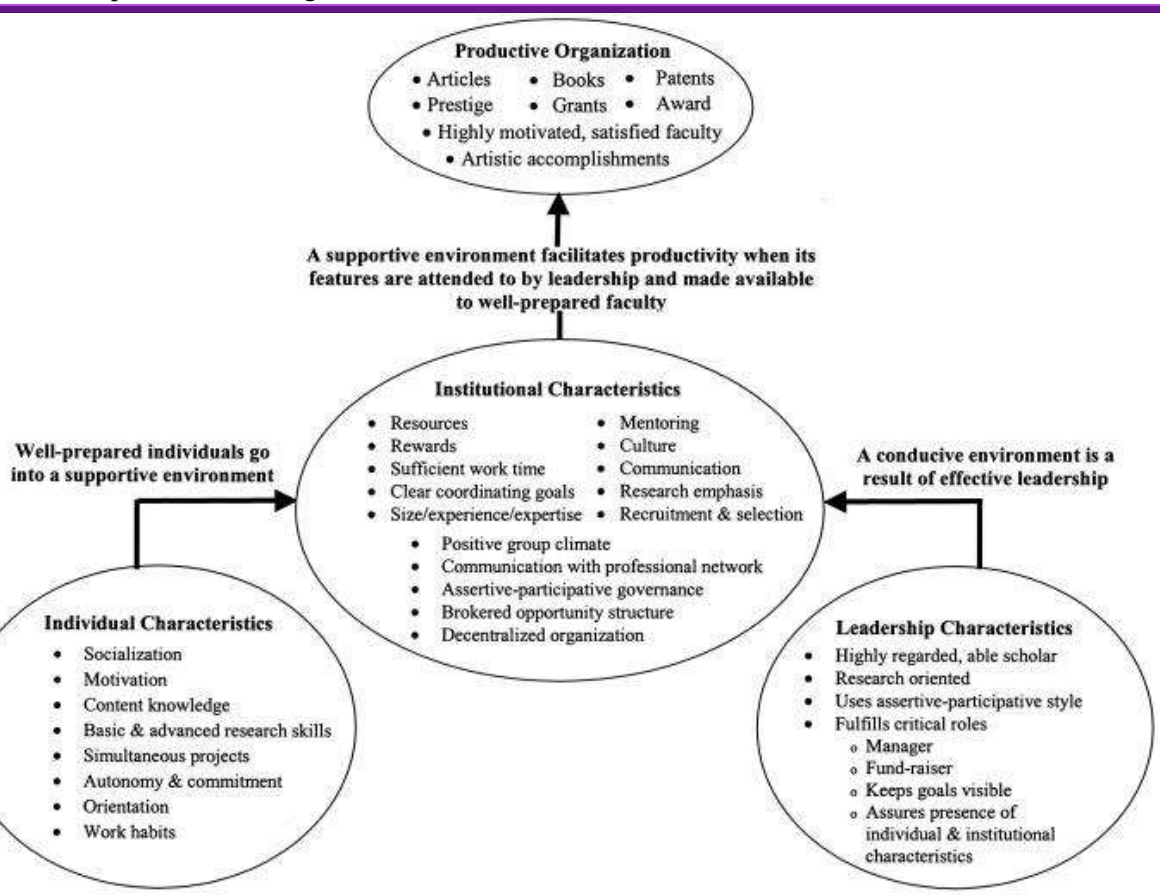
Comprehensive theoretical models were used to explain the relationship between the factors and the levels of research productivity in Universities. The study related to the Bland et al (2002) model to understand the individual, institutional variables that influence research productivity within the Universities under study.

Creswell (1986) holds on institutional factors with a description of the successful researchers in terms of the level of professional rank, time spent of at least one third of their time on research activities, early publications in career, positive feedback from peers and maintaining contact with networks of persons who are conducting similar researches while Dundar &
contributions to the institutional theory. These are evident in personal traits and the institutional factors that relate to culture, leadership, structure and policies.

Teodorescu proposed the international model which focuses on faculty publication productivity. He pinned down individual achievement variables and institutional characteristic variables to predict faculty research productivity across national boundaries. In testing this model he found out that membership in professional societies and attendance at professional conferences was significantly related to research productivity across all countries.

Brocato proposed that faculty research productivity in the context of medical school family Practice relating to factors of socialisation, psychological, demographic characteristics, institutional and department research environment. The results showed that individual characteristics such as motivation, professional networks and research training were highly correlated to research productivity.

Bland and the colleague's synthesis of literature developed into a model that asserts that high research productivity is associated with individual characteristics and 15 institutional characteristics and 4 leadership characteristics. The model is illustrated as below;



Source: Bland et al (2002)

The study was structured around the institutional factors as well as highlighting some personal factors that impact on the research productivity in Private Universities in Uganda which has a unique environment; such as the levels of financing and also development and growth in the field. This model can only survive in an institutional setting defined by cultures and norms as such the institutional theory supports the framework as below.

2.2.2 Institutional Theory

The institutional theory is highly intertwined into the research productivity theory of Bland et al(2002), Institutions have been defined differently by authors (Jepperson, 2001) asserts that institutions are organised and established procedures with a reflection of a given set of standards which focus on patterns of interactions. He also emphasises that they are supported by a specific mechanism of control. While (Scott, 2001;Fligsten, 2001) share their views in
relation to the regulation and human cognition with elements of rules and shared meanings that contribute towards social relationships.

In this study this definition was adopted to show the influence of the human cognition/behaviour in relation to research productivity in Private Universities in Uganda.
The establishment of rules and procedures in these Institutions to enhance research outputs and how these are followed by the academic staff is worth exploring to achieve the objectives of this research. In summary ,the study upholds the values of institutionalism as drivers to the establishment of a vibrant and robust system geared towards research productivity. The customs, norms, beliefs in this context act as a glue for the members in the institution.

2.2 Research Productivity

Research can be understood as the creation of new knowledge or the appreciation of the existing knowledge in different

dimensions to come up with new concepts, methodologies and understandings (Australian research council, 2010; State of HE, 2010). Distinction has been made between the research activities or inputs and the outputs (Ito & Brotheridge, 2007; State of HE, 2010) research activities involve the process, money and investment made to understand research such as reading about research, competing for research grants, reviewing research proposals and discussing research with colleagues. While research outputs include; research publications in professional journals and in conference proceedings, writing a book or chapter, gathering and analysing original evidence, working with post-graduate students on dissertations and class projects, obtaining research grants, carrying out editorial duties, obtaining patents and licenses, writing of monographs, developing experimental designs, producing works of an artistic or creative nature, engaging in public debates and commentaries (Creswell, 1986; Ramsden, 1994; Ito & Brotheridge, 2007).

Oloruntoba & Ajayi, (2006) observed that research publication in the University is paramount to determine academic staff productivity, and for a staff to be considered as research oriented the number of published articles in refereed journals and conference proceedings are of repute counts. Research productivity evaluations in the departments are based on the number of their "publication count", articles, technical reports and presentations given; which results have a significant impact on tenure decisions, salary raises and promotions (Hadjinicola & Soteriou, 2005; Rotten, 1990).

2.3 Factors affecting academic institutions' research productivity

A number of authors have conceptualised institutional research differently to support their studies. There are different factors that influence research productivity in academic institutions all over the world which has provided ground for varied studies in this area. In this study the organisational culture, job satisfaction and resource availability have been singled out for study although other factors will be highlighted because each of these cannot stand independently.

2.4 Organisational Culture and research productivity in Private Universities

The culture of an organization refers to the unique configuration of norms, values, beliefs and ways of behaving that characterize the manner in which groups and individuals combine to get things done or „"the way we do things around here"(Eldridge & Crombie, 1974;Furnham
& Gunter, 1993). Universities have set cultures that dictate the way things are done including research.

The German Humboldtian model set pace for the model of modern research in Universities (Boyer, 1990). The Humboldtian model emphasised the element of knowledge pursuit as well as knowledge creation and dissemination within Universities. It is possible to state that this model seems to have exerted pressure on the modern Universities world over and fed into a number of missions of Universities in conducting research and also achieving teaching excellence (Pritchard, 2004). According to Deem, 2006 this model resulted into the phenomena of raising aspirations of higher education that were previously teaching institutions.

Governments have encouraged reinforced performance of research by linking funding to University research performance in different countries such as the UK and Australia. This has placed Universities that are pro research productivity at a better position to compete for these opportunities where provision is made to access big funding so as to invest in research and devoting to those areas that are key(Deem, 2006). As such the governments are aiming at concentrating in those areas facilitating research growth (Deem, 2006).

In the bid to deal away with the teaching only image that has been prevailing, the new Universities have stepped in to compete with the already existing(traditional)Universities for the government funding set aside for research to improve their reputation (Deem, 2006) Studies also show that there is a high correlation between research productivity and the High Education reputation (Ho, 1998) while the web ranking is based on Universities" research output. For a University to continue in existence it is important to consider the aspect of their reputation and this holds weight in the case where the public Universities funding from government in most countries has drastically reduced (Mok, 2005).

Higher Education institutions have been encouraged to find external funding for their research (Macgregor et al., 2003), and allowed to enrol fee paying students (Pratt et al.,
1999), their reputation becomes important in attracting external research funding and high quality students (Chen et al., 2006;Ho, 1998; Ito & Brotheridge, 2007;Levitan &Ray, 1992). Institutions both at the government and the University level have set up initiatives to grow the area of research such as the 10% fund of the University budget as per the National Council of Higher Education (NCHE). This is meant to boost research in Universities given that it is one of the major occupations of an academic institution of higher learning (State of HE, 2010).

As institutions aim at national and international recognition research becomes more pressing need than before. Institutions of Higher learning have fully engaged in ensuring the academic staffs are motivated to improve their research status through research management and encouraging reward systems (Macgregor et al., 2006; Pratt et al., 1999). Pratt et al (1999) in their report on how a teaching dominated management school in a New Zealand University grew its research profile and reputation by implementing management policies and research reward schemes after it was granted the offer to conduct degree courses.

University management has taken diverse ways of growing their research productivity and these include; preparing institutional

research plans, creating research committees to set up research agendas, appointing a Director in charge of research, scholarships for research, transferring more budgetary power to departments to encourage research, seeking collaborations with partners of high profile in research, setting up research databases and also establishing an annual research activity report mechanism(Thomas, 2001), identifying and building research strengths by setting up research centres for excellence (Macgregor et al., 2006).

World over the promotion of research performance and striving for excellence have become the major targets for the higher education institutions for example in continents like; Asia(Ho, 1998;Tien, 2000,Yuan, 2002) as well as Africa(Ochai & Nwafor, 1990).

Universities have adopted various mechanisms to upgrade their profiles in research and encourage production of research in their faculties such as the Hong Kong University whose grants committee and University funding body suggested that in the local refereed journals the minimum performance for academics should be one journal article per year. In another University two in the research papers in local journals for reappointment and two in international journals in three years immediately before application to obtain tenure.

It is upon this premise that Hong Kong Universities set up research publication standards for promotion, tenure and reappointment (Ho, 1998).

According to Solem & Foote (2004) as cited in MCGill & Settle (2012), networks are important for Universities both on campus and academic conferences because they increase their level of satisfaction and job performance. In the event that a faculty is not in the network they always suffer isolation as well as limiting their access to department and institutional resources, including adequate library resources and support for administering external research grants.

2.4.1 Research Culture

Research Culture according to the Bland et al.(2002) refers to a department whose members are bonded together with research related values and practices, creating a safe place for new ideas, among other scholars like Williams, Dobson & Walters,(1993) culture is shared organisation beliefs, Borg (2007), highlighted the following as components of research culture; the degree of research collaborations and communication between colleagues, accessibility of academic resources and financial support of academic activities.

Studies have revealed that where the environment is supportive and stable the research work of the academic staff will be facilitated and therefore enhance the research productivity. As such upholding the fact that these are essential elements to improving research performance of academics (Hemmings et al, 2007;Hiep, 2006;Macgregor et al., 2006;Pratt et al.1999) Considering Williams et al.(1993) and Pratt et al.(1999) definition of research culture in a New Zealand University where a rich research culture was developed by changing the beliefs of faculty members and this resulted into a significant improvement in research outputs. Another qualitative case study (Grbich, 1998) of two Australian health departments showed that influences such as funding, research skills training by mentoring and collaborative research, provision of study leave and conference opportunities and stable employment which contributed to the establishment of a facilitative research culture were also conducive to research productivity.

Just like other industries where new knowledge has to be sought to allow the thriving of business, academic institutions are capable of doing this through research (Williamson & Cable, 2003).Emphasis is made for the degree of originality in information disseminated to be able to compete, survive and have a reputation capital. As cited in Williamson & Cable ,2003,,"For example, American Management Systems, Inc (AMS), an international business and information technology consulting firm, uses an associates programme to encourage consultants to publish at least one white paper a year (Watson, 1998). In generating new ideas a number of advantages are at the Universities disposal. Enables the academic staff to reflect and improve on teaching (Borg, 2007, 2009),inform them on the most current theories and practices (Borg, 2009; Xia, 2002). It can also satisfy academics curiosity and creativity.

The desirability of research has become more and more pressing for the academics; staffs have to research and also publish as in the Hong Kong University; where the other side of earning one a promotion led to the dismissal from academic positions due to unsatisfactory research performance (Ho, 1998). This concretises the dictum by Ho (1998) of „„publish or perish which creates a lot of pressure for the academic staff.

As reported in a survey conducted in American; out of 154 respondents from 127 predominantly undergraduate institutions it was found that there was productivity in research for a period of five years amidst the heavy teaching load, the academic staff had to conduct research to get promotion and also tenure (Sharobeam & Howard,2002). This has also resulted into a change in beliefs about research by academic staff and more so for the upcoming Universities where there is a new wave of transforming from teaching dominated culture to integration of teaching and research as illustrated by the research capacity building in a New Zealand University school (Pratt et al.,1999).

Change in the work habits of the academic staff seems to have increased research productivity as reported by Massy & Zemsky,1994 where the reduced teaching load among the American Universities and colleges allowed time for the academic staff to research which affected the undergraduate teaching because not much importance was attached to it.

Though the longitudinal study over 20 years conducted of American academics showed that both teaching and research was allocated much time which leads one to argue that increased time in research did not compromise teaching (Milem et al., 2000).Despite the inconclusiveness of studies in this field it seems that academics worked longer hours than they had 20 years ago and research contributed to this increased workload. Some academic staff as in Sharobeam & Howard 2002 study about 90% indicated that they had to conduct

research in their own time such as holidays given that they were not able to carry out research at the time of teaching because of the heavy workload.

2.4.2 Person culture

The time allocated to research speaks volumes and is supported by empirical studies (Bracato

& Mavis, 2005; Griffiths et al., 2010; Levitan & Ray, 1992). The multiple roles of the academics in teaching, research, student counselling and community service are competing elements in demand of the time of the members of the faculty (Milem et al., 2000). It is essential to attach time for scholarly productivity (Hemmings et al.2007). Levitan and Ray found out that productive researchers allocated more than 40% of their time to research compared to 29% spent by randomly chosen group of academics. The productive researchers also seemed to work longer hours than the unproductive ones. Ramsden (1994) surveyed 890 staff in 18 Australian higher education institutions and reported that the group who were actively involved in research were five times more productive than the group who were least active. Active engagement in research means more time spent on research, so the findings supports the claim that sufficient time allocated to research may have positive effect on research performance. In most studies about academics research performance, time constraints were one of the most frequently cited variables impeding research engagement and outputs (Borg, 2007; Hemmings et al., 2007; Griffiths et al., 2010; Wood, 1990).

Increasing one's research productivity has also made it necessary for the academics to develop strategies to promote their performance (Ito & Brotheridge, 2007; Levintan & Ray,

1992). Ito & Brotheridge distinguished four factors in relation to research strategies: seeking resources, management of ideas, strategic focus and management of time. They found out that of the four factors, strategic focus was a significant predictor of self- reported research productivity measures. Included in strategic focus were making research plans, having clear

research focus, having a personal mentor and targeting writing to publication requirements. According to Ito and Brotheridge, their study seemed to provide clear empirical evidence about the impact of strategic focus on research productivity, because this factor often came up in anecdotal writing about productive researchers and was not studied as it was regarded as embedded in one's research training.

Academics work in a community, so publishing research involves researchers in a communal conversation. Networking with influential researchers in the profession may increase chances to collaborate with top researchers and help academics publish more easily than those who do not build a professional network (Williamson & Cable, 2003). Empirical studies support this speculation about the impact of networking on research productivity. Bland et al.(2005) provided a detailed description of networking; „„members have a vibrant network of colleagues with whom they have frequent and substantive(not merely social) research communication, both impromptu and formal, in and outside of the institution"".(p.228), and included it as one of the institutional influences.

Dunham-Taylor et.al (2008) defines mentoring as a relationship that exists between two parties where one of them is a senior or greater in experience and the other is junior who is trained or counselled in the bid to develop professionally. The benefits include; provision of career information and development of leadership skills among others. As reported in the case of a mentee who applied to the University's summer leadership development program for students under the guidance of the mentor and was accepted.

Atkinson & Blanpied (2008) in their study showed the uniqueness of mentoring as a system which links education to research in the US undergraduate school and is offered by world

class mentors. This increases the level of consultation in different research fields and broadens the knowledge base of the concerned parties. In the study conducted by MCGill & Settle the responses presented a significant relationship between mentoring and the increase in the quantity (but not quality) of research /publications($r=0.19$, $p=0.00$, $N=255$)

2.4.3 Reward Structure

In institutions of higher learning reward is referred to as the promotion, appointment, increased income and tenure

(Edgerton, 1993; Ho, 1998; Serow, 2000; Tang & Chamberlain,
2003). The reward structure has drawn attention towards research in most institutions of higher learning (Hum, 2000; Sharobeam & Howard, 2002). Studies have been conducted to find out the relationship between the two variables of reward structure and research; for promotion a study was carried out in the Taiwanese University to examine whether promotion system rewarded research productivity. Data collected from numerous resources such as the faculty roster, mail survey, research files and the list of research publications the revelation was that the quantity of scholarly publications was highly correlated with faculty promotion (Tien, 2007b).

The productive academics grew faster in promotion than those that were not productive regardless of the academic ranks. Even with other studies conducted by Tien (2000) regarding the effect of motivation on research productivity also supported the claim that there seemed to be a strong relationship between research productivity and reward.
It is paramount for institutions to uphold the value of rewards to encourage positive performance for the academic staff. Individuals‟ contributions ought to be appreciated for their efforts and ability to improve their competencies (Armstrong, 2009)
In Alhazarani's study conducted in 2011 recommendation was made to strengthen research productivity in
higher education institutions. There ought to be well defined and stated financial rewards that increase zeal and momentum to do research. For those who publish for five or more papers annually rewards should be set aside. These may include; faculty travel, increased library budgets (Schuster, 1986 as cited by McGill &Settle, 2012).

A similar study of American faculty members (Melguizo & Strober, 2007) attempted to explain faculty salaries determination by using the prestige maximisation model.
With close examination of whether institutions gave salary premium to academics whose activities boosted the prestige of the institutions? The results were that the faculty members increased institutional prestige through the research inputs and outputs; the inputs comprised of the reputation of the institution where an academic obtained his or her degree and acting as a research team leader, outputs measured by the journals articles, books and patents. Faculty salary, research inputs and outputs regression analysis showed that they were positively associated with each other. The activities that enhanced the prestige of the institutions were financially rewarded. These results are not surprising because some academics were financially motivated to produce publications and thought financial incentives were useful in stimulating research productivity (Hemmings et al., 2007).

Mobility especially upward is also an important aspect to consider among the academics due to the research performance. In the Yano & Tomita (2006) study (N=375 full professors in the field of economics) where the relationship between Japanese professors‟ mobility and research performance was established. Using the annual average number of academic papers as a measure of research performance; the results indicated that those who moved upward from education Universities to research Universities had high pre move publication rates than those who never moved. The highest pre move publication rate appeared among those
who moved from Research University to a more prestigious one. The findings suggest that the success of a Japanese professors‟ upward mobility depended to a great extent on research and publication.

According to a study conducted by McGill & Settle(2012) the result indicated troubling responses where the untenured academic staff were not satisfied with the level of support offered by the institution in terms of office space improvement(N=281,Mean=2.99 on a scale & r= -0.12 for stress and dissatisfaction levels of institutional support). A change in the level of support for the period of 2009-10 was analysed. Of 318 participants responses analysis showed that while the other areas like conference funding, computer purchases and upgrades had increased funding; improvement in office space was categorised under remained the same or reduced.

2.5 Job satisfaction and Research Productivity in Private Universities

As noted in Herzbergs two factors motivation theory the impact of fourteen factors on job satisfaction and dissatisfaction in terms of frequency and duration of impact. By use of the critical incidence analysis over 200 accountants and engineers were involved in recalling job related incidents. And motivation factors were based on what employees do and plan to get achievement recognition, responsibility, advancement and growth (Armstrong, 2009)
Pfeffer and Langton (1993) revealed in their study that job satisfaction was positively related to research productivity. In this study three areas of job satisfaction were analysed job security, career advancement and communication.

2.5.1 Job Security

A lot of restrictions and retrenchment in the Universities has greatly contributed to the very low morale of faculty members (Kerlin & Dunlap, 1993). Bland & Ruffin (1992)
recommended that Universities should set up policies and practices which attract the appointment of highly able and motivated people.

Academics from research related Universities where research is integrated in their work access more opportunities than those from comprehensive Universities. Comprehensive Universities are those where the academic staff are treated as employees and consequently get detached from the research aspect (Colbeck, 1998). Leung, (2009) in his study to answer the question; how does job security influence productivity? Using academic careers of 934 researchers and papers produced from 1973-2008 there were two noticeable effects of job security. First was a drop in productivity immediately after tenure (about 20%) fewer papers than the predicted. Secondly was a flat productivity pattern of almost no growth per year. This implied that job security has a negative effect on research productivity. Reback, Rockoff &Schwartz (2011) study of teachers performance in the No Child Left Behind (NCLB)Act in the United States where teachers at great risk of losing their jobs seemed to be discouraged by the challenge of raising the students proficiency rates at the schools they are unlikely to make the adequate yearly progress(AYP) and face state sanctions. As such every moment of their work was not assured because of the set targets.

Where institutions set a conducive environment at the work place in terms of access to equipment, established colleague relationships, job security or fund security the scientists are encouraged to venture into risky projects (Stephan, 2005).Which is in tandem with the science & technology indicators, 2003 which indicates that between 1991 and 2000 75% of the 15,158 Europeans who received their Ph.Ds. in US showed preference to stay so as to continue the development of their career. About 50% indicated that they had firm employment and 25% had not yet received the offers but were willing to stay. This
demonstrated a high rate of brain drain from Europe to US because of better employment and career opportunity afterwards in business and academics.

2.5.2 Career Advancement

Career advancement is more intrinsically related to the academics job satisfaction and feeling of accomplishment (Sturges, 1999; Allen, Eby, Poteet, Lentz and Lima, 2004). The academic staffs are willing to conduct research when praised for their efforts because it greatly contributes to their fame as researchers. Reinforcement of their work is important as a contribution to their self-actualisation. As more and more researches are done they gain positivity because of the accomplishments and appreciate research as a task that can be done (Lerttputarak, 2008).

Meltzer and Slater (1962) observed that academic staffs have greater job satisfaction when the level of supervision is low. Given their professional status they hold a view of being able to set their own agendas (Finkelsten, 1984) and the ability to bargain agreements and standards for the faculty work. As noted Geber, (2006) who reflected on early career academics stressed their long term goal is to deepen the level of independence not under the tutelage of their Ph.D. supervisors. Yet the registered students for masters and Ph.D. preferred conducting research for the degree and have a dissertation completed on time. This illustrated a close relationship between academic career development and publication.

In a study under taken by Right Management in 2009 in a range of companies in Australia and New Zealand 28,000 employees representing 10 major industry sectors in 15 countries with respondents largely from Private companies (91%) employing 50 or more people depicted the following findings. Effective alignment of employees to the organisational goals has two particular outcomes; continued development of employees in particular areas of
competences needed for organisational success and increased engagement ensuring high levels of productivity, retention and performance. This clearly shows a correlation between employee perceptions and the overall engagement.

2.5.3 Communication

Communication entails the processes that are involved in ensuring timely and appropriate generation, collection, distribution, storage, retrieval and disposition of information (PMBOK, 2008).There must be a deliberate action by the sending and receiving end to acknowledge receipt and act accordingly**.** The traditional setting created a mind-set of doing things in an ordinary manner for example; 20 years ago, few workers used fax machines or e- mail, and computers occupied entire rooms, not desktops. However advances in information and communication technology have permanently altered the workplace by changing the way information is created, stored, used, and shared. Individuals need to purpose to change their attitudes towards the technology and its influence to be able to manage time.

Miller (2002) contended that in the US context communication in the field of research especially with the academics was through publications and research. This creates an enabling environment for intellectual creative thinking among the academic staff.
Communication with the professional networks is important for both the inside and the outside of the institution (Bland et.al, 2005). Levitan & Ray (1992) reported about a comparative study that was carried out of the productive accountants selected from two top accounting journals and a group of randomly selected academics from 1989 Hassel back Directory. Among other differences was that the productive academics were hooked into communication channels with counterparts in the outside environment of the institutions as opposed to the other randomly selected group.

Institutions need to develop a proper communication network to send information and get the right feedback. The physical access

to the organisation enhances interaction among the researchers in an institution. But some studies have shown a distortion in this phenomenon because of the internet and the communication costs charged, where the localisation of the nature of research has been interfered with. As such the information flowing back and forth is not regulated and controlled while accumulating knowledge. In this study of 25 top Universities in the last 3 decades reflect a great change in the localised interactions (Kim, Morse & Zingales, 2009).

Zambuk & Ya‟u Gital (2012) telecommunication was conceptualised as entailing the Television, Computers telephone and mobile phones. Telecommunication has precipitated the aspect of content development, delivery and sharing of information between student and the academic arena and among the academicians world over where contact with people has been intensified through compression of time and space. These were highlighted as facilitators of teaching and learning in the institutions of learning. Results imply that communication easily accommodates various learning styles and instructional productivity of materials.

Sullivan (1996) in a study of 10 academics from an Australian University showed that much value was attached to published research by academics. This accompanied the belief that it is the best way the Universities can give back to the community. That is through disseminating knowledge through published research.

2.6 Resource Availability and Research Productivity in Private Universities

Kyvik (1991) distinguished resources in two ways; the financial support for research and the human resource/research assistants. Schuster (1986) in McGill & Settle(2012) noted that support includes „„secretarial, clerical, library budgets, research instrumentation, faculty
travel, office space, campus maintenance, faculty evaluation processes and properly prepared students (p.171).In this study the resources have been conceptualised in terms of the materials, money, machines and manpower.

2.6.1 Materials

Previous studies have highlighted the types of material academics used for their research information needs. Lonnqvist (1990), studied the information seeking behaviour of scholars in the humanities, and observed that journals were used to supply research news, present new literature, read book reviews and obtain related articles needed in the chaining process. Lorenz (1973) found that users of the University of Nebraska library perceived a high need for photocopying services in the periodical Library. Academics generally perceived the library services as essential but often admitted that they used them infrequently. This low usage could be due to ignorance, as academics might be aware of only half of the services actually available.
Online databases are also another important material in the library service delivery. The use of libraries is foreseen to change in future, especially in the provision of access to online databases, both bibliographic and full-text, right to the academicians‟ desks. There are evidences, which indicate that academics are readily using online databases made available by their libraries. Curtis, Weller & Hurd (1997) found that academic staff preferred to access electronic databases from their offices to doing so from the library. Zhang (1998) surveyed the use of electronic materials by academic staff at Rollins College in the United States and observed that 69% of academics sampled used the online catalogue, 53% used UMI‟s *Pro Quest* direct online databases, 35% used the OCLC *First Search* package and 35% used the *Pro Quest* CD-ROM databases made available through the campus network. Bonzi (1992) indicated that access to databases and computer support facilitated academic staff's research productivity. Babu & Singh (1998) observed that eminent Indian scientists regarded access to the relevant literature and adequate library materials as important, in order to keep abreast with current literature in their research areas.

2.6.2 Monetary support

Kendagor et .al. (2012) in their study found out that 80.8% of their respondents were in agreement with the view that funding as a resource influences the degree of research carried out. This ties up with the aspect that most institutions appreciate the increasing amounts of money which need to be invested in research for activities such as recruiting faculty researchers, equipment and lab facilities. Barry (1997/1998) cited increased research at Universities as one of the major factors increasing education costs. The Ministry of Education and Sports has channelled funding through the National Council of Higher Education for research as well as staff development to grow the discipline of research and for all Universities at least 10% of the University budget is to be set aside for research as a standard requirement from National Council of Higher Education (State of HE, 2010).

In a study conducted in South Africa on the impediments of research productivity and publication three core activities were identified to give an impetus to the research related outputs in the unit and among them was an innovation fund for staff and Postgraduate students. This is in tandem with the authors who believe that for an institution to develop and grow the research culture there is need to fund and also scan out for opportunities to finance research (Wadesango, 2014).

Holsapple & Joshi (2000) noted that when implementing knowledge activities financial resources dictate or set a ceiling on what should be implemented. An increase may cause a positive or negative result on the quality of knowledge activities. The financial resource availability may also affect the execution of leadership, coordination, control and the measurement of performance. Financial support is a strong strand in facilitating activities involved in research. Alhazrani (2011) in a study conducted in Somalia revealed that lack of financial support is one of the biggest limitations to research publication.

Studies conducted in the aspect grants includes a sample of unsuccessful and successful applicants to the National Institute of Health from 1980-2000 for Post-Doctoral training grants(F32s) and Standard Reserve grants(ROIs),the estimates show about 20% and 7% increases in research productivity for F32 and ROI recipients respectively(Jacob &Lefgren,2007). An analysis of the Bozeman and Gaughan (2007) documents a positive correlation between industry grants and industry involvement of University researches. Slaughter and Rhoades (2004) hold an argument that University researchers may be motivated to interact with private companies for reasons other than access to additional research funding like funding potential co-authors and ideas for their research agenda. Boardman and Ponomariov (2009) studied the effects of industrial scientists for academic journals and industry grants on a broad set of indicators. They concluded that additional grants increase the likelihood of University scientists co-authoring papers with industrial scientists for academic journals.

2.6.3 Machines

It is worth noting that for completeness in the setup of a conducive study environment such as a library there is need to have machines like computers and fully connected to the internet; telephones with good access to telephone services, fax machines (Public libraries report,
2000).For example in Zambia Library services where all the three provincial libraries and Headquarters are provided with fax machines. The big idea is to have resource centres in every district, equipped with computers, fax machines, photocopiers and books. The centres are to be used by teachers and other community members to access materials that are relevant to their disciplines whenever they needed to.

In a study carried out for research with publication productivity of 83 academic engineers and 239 academic scientists from the University of Malaya and National University of Malaysia. Respondents‟ views were sought on how libraries can improve their services to support research activities. The feedback from interviewing 56 academic scientists and engineers about the results obtained from the survey indicated that of the most expressed needs are the provisions of more self-operating photocopying machines, exclusively for lecturers‟ use (30%), and the need for better handling of request for reprints of journal articles not available in the library (19%) (Zainabu, 2001). It is clear that the highest percentage of the respondents pointed to an aspect of machines as a support to increase the academics research productivity.

In studying the relationship between high performance computing instrumentation and research competitiveness among US doctoral granting institutions and additional institutions that have entries in the top 500 list, the following conclusion was reached. A consistent investment in high performance computing even at the modest levels possible they are strongly correlated to research productivity (Apon et.al, 2010). As universities grow there is dire need for high performance computing equipment to be able to meet the demand for the service for both the academic staff and the student community.

Menon 2010 study shows that the reliance on technologies like the computers, cell phones, and generators has significant impact s on the productivity of the institutions. In contrast to this was the examination of the nature of laptop use in the large classes and how their use related to student learning. Results showed that students who used lap tops in class spent considerable time multitasking and lap top use posed a significant distraction to both the users and the fellow students (Fried, 2008).

2.6.4 Manpower

Manpower is very important in organisations and for universities the academic staffs are the drivers of their performance (along with other resources such as money, materials, and information). The Universities that are successful in most cases are particularly adept at bringing together different kinds of people to achieve a common purpose (Snell & Bohlander,
2013). The performance of the academics lies majorly on the Universities level of investment to hone them into the kind of manpower they expect.

According to Mirza-Amini, (2005) in Monavaryan & Farmani,(2012)Human resource available should be knowledge workers with essential effectiveness: lifelong learning, innovation and creativity, entrepreneurship, flexibility and conformity, the knowledge of technology, researching, having foresight and future studies. It is also noted that all successful countries and those who determine to face a bright future, should seriously plan for training their future human resources.

Accessibility to various trainings in the field of research increases the level of confidence of the academic staff to be able to take on assignments. Self-efficacy is an individual's confidence in carrying out course of action, and it determines the degree of effort an individual expends on the task (Bandura, 1997). A research carried out in 4 academic

division of 28 research extensive Universities in US among 1208 with response rate of 65%(781) showed that there was a strong correlation between self-efficacy and research. One of the sources of self-efficacy is performance experience (Bandura, 1997). Researchers such as Schwoerer *et al.* (2005) observed that a self-efficacy and locus of control, conscientiousness, and levels of anxiety, age, cognitive ability and job involvement are significantly related to training motivation and performance. Research training received from a doctoral course may have provided prospective academics with good opportunities to acquire research and publication experiences (Williamson & Cable, 2003). These experiences in turn could provide confidence in conducting, writing and publishing research (Bazeley, 2003).

Hence, research training seems to have both a direct and an indirect impact on academics research productivity in the last years. It may be a direct contribution to research productivity in that research skills and in-depth disciplinary knowledge are preconditions for conducting research. It may be an indirect contribution, because it affects academics research production through confidence building.

According to Prince, Felder & Brent (2007) there was a strong link between research and under graduate teaching. The skilled faculty researchers transfer knowledge acquired from their own scholarly works beefed up with the literature reviewed enriched the support offered to students in the learning process while in the classroom environments. Students develop critical thinking and problem solving skills which become applicable in their work environment.

Kang,Bai,Miller& Michael(1999)cited Cooper(1932)studies on sabbatical leaves emphasising the perceptions of the administrators and faculty regarding leave. Results showed that 90% of the college administrators had the opinion that 100% of the teachers were more valuable to the institution after their sabbatical leaves than before. Cooper indicated this time being important for study, carrying out of research and travel as well as a combination of any of these. Which is in agreement with the works of Gilbert et.al,(2007) stating; „„leave of absence are among the most important means by which the teaching effectiveness of faculty members can be enhanced, their scholarly usefulness enlarged and an institutions program strengthened and developed.""p.1. The Gazette of 2014 alludes to the importance of sabbaticals in developing new course material and publication of books

Kyvik (1991) as cited by Ingenjörsvetenskapsakademien (2012) asserts that the masters and the PhD students are a very vital human resource to increase the scientist's research productivity. This is because much of the data collection and data analysis work is done by them. More so is the supervisors/academics staff may become co-authors of publications written by the students and research associates. Ultimately the research productivity of the academic staff is increased as well as the university publication counts and the reputation.

3.0 Methodology

3.1 Research Design

The researcher used a case study design as recommended by (Yin, 1984) which involved using multiple cases to come up with results that are generalised to the rest of the groups which have the same characteristics. The Private Universities are 27 in number and only seven accredited to conduct Masters and Ph.D. programmes but the cases taken were three; Ndejje University, Nkumba University and Islamic University in Uganda.

The research used both qualitative and quantitative research approaches to fill in the gaps where the narrative or numerical remained wanting.

3.2 Study Population

The study population was derived from thirteen Universities that are accredited by National council for Higher Education to offer Masters and Post Graduate Courses (NCHE website 2013;State of HE 2010) these are the institutions with Masters and Ph.D. students where serious research is done . Of the thirteen only seven are Private and since they are homogenous only three have been randomly selected. These included; Ndejje University, Nkumba University and Islamic University in Uganda which are Institutions of Higher Education. The bigger population of study was literate and belonged to the elite group of the community with exposure to information that is related to Higher Education. The population enlisted the Heads of Research Units (3), Academic Staff, Ndejje-31, IUIU-92 and Nkumba-133 and the Librarians (3).

Each of these categories will avail necessary data to the study,1) Librarians-storage and use of research works, 2) Heads of Research Units-publications, 3)Academic staff- service delivery and involvement in research activities.

Table 3.1: Study population and sampling

Item	Population	Sample	Sampling technique
Academic staff (N=256,n=148)			*Simple random sampling*
Islamic University in Uganda	**92**	**53**	
Ndejje University	31	**18**	
Nkumba University	133	**77**	
Research unit Directors	**3**	**3**	*Purposive sampling*
Post Graduate Directors	**3**	**3**	*Purposive sampling*
Librarians	**3**	**3**	*Purposive sampling*
Total	**265**	**157**	

Source: State of Higher Education report, 2010 and adopted the Morgan &Krejcie (1970)

3.3 Sample Size determination

A sample is a smaller unit of analysis obtained from the access population (Mugenda and Mugenda 2003) while ensuring that the sample size is neither too large nor too small but rather optimum thus fulfilling the requirements of efficiency, representativeness, reliability and flexibility.

3.4 Sampling Techniques

The researcher obtained contacts both email and phone contacts through the Department of Post Graduate School which included all the academic staff that participate in their programmes. The researcher then picked the respondents randomly and contacted then requesting them to be part of the study. In the study a combination of methods were used namely; simple random sampling and purposive sampling.

3.5 Data Sources

According to Kothari, (1984) primary data is that data that has been collected for the first time thus original information. This study focused on the primary methods of data collection (Drew, 1980; Kothari, 1984) regard questionnaires, interviews and direct observations as the most important means of data collecting. The secondary data was obtained by studying manuals, magazines, journals, dissertations and theses.

3.6 Data Collection Instrument

In this section the researcher used the tools that support quantitative data collection and inquired into the problem based on testing theory composed of variables, measured with numbers, and analysed with statistical procedures, in order to determine whether the
predictive generalizations of the theory were true (Cresswell,1994**).** Qualitative research was also used to allow an exploration of social experience in relation to the variables in the quantitative to get a deeper understanding of concepts in the Universities under study.
The instruments used included the following;

3.7 Data quality control

In this section of the study, the researcher put in place measures to make the data obtained acceptable to the users after applying all the necessary controls through Validity and reliability tests.

3.8 Data Processing and Analysis

After data had been collected using the Self-administered questionnaires, it was processed or prepared for analysis. A number of actions were conducted to clean, code, keypunch into a computer and analysed.

3.8.1 Quantitative Data

After collecting all the questionnaires from the filed the researcher had to read through all the questionnaires to check for any errors and two cases were got where one respondent had indicated that he had a Ph.D. but was below or equal to 24 years. The other respondent had indicated that he omitted the category whether full time or part time and this was rectified by checking on the contacts sheet obtained from the Departments. At the stage of checking the questionnaires three were incomplete and as such they were left out in this study.

After data cleaning the next step was assigning each questionnaire unique numbers (codes) for easy identification. The each of the variables or questions was also assigned numbers that are understood by the computer to make possible the task of analysis. In this study Statistical Package for Social Scientists (SPSS) was used which made it the numerical codes useful for further processing and / or analysis. This simplified the entry as opposed to words as they take less storage in the computer.

The final part of this section was the entering of the data in the data view window of the computer until when all the 51 questionnaires were entered against 73 variables that had earlier on been entered in the variable view window. By using the SPSS software the data was then ready for summary of frequency tables and subsequent data analysis.

3.8.2 Qualitative data

The researcher used the direct reporting method where the words of the respondent were recorded on an interview guide and immediately transferred for report writing to avoid change in response since a human mind is unable to recall everything.

3.9 Ethical Considerations

All information used to fulfil the research objectives of this research was gained from publicly accessible sources such as the University journals or directly from the University being researched on and where need be to contact respondents; a copies of the letters are attached in the appendices. Respondents were adequately informed about the procedures of the data collection and the study findings would remain anonymous (no provision for identifying the respondent on the questionnaire is provided). Both the questionnaire and interviews were conducted after willingness from the respondents. For example; two respondents declined to be part of the study due to personal reasons that were not disclosed. There was also a higher degree of objectivity during the study which avoided biasness.

4.0 Data Presentation, Analysis and Interpretation of Results

4.1 The Response Rate of the study

Out of a total of 157 questionnaires that were dispatched to the academic staffs in post graduate studies in the Universities under study, 110 responded thus a response rate of 70% which is adequate response rate as argued by Mugenda and Mugenda(2003) that the return of
50% or more is acceptable. Non response rate in this study was 30% which was caused by the busy university schedule of examination and marking as well as the holiday. However most of the respondents were accessed physically and on mail.

4.2 Research productivity in private Universities in Uganda

Analysis of the findings and the interpretation was based on the three objectives of organizational culture, employee job satisfaction and the resource availability. These were obtained from a likert scale of 5 elements; Strongly disagree is equivalent to 1,disagree is equivalent to 2,Not sure to 3,Agree to 4 and strongly Agree to 5. Measures of central tendency were used namely; the mean to show the average responses from respondents as well as the Standard Deviation (abbreviated as "SD") to show how far respondents responses to a question varied from the mean (where they concentrated around the mean, or scattered far and wide). The overall mean and the standard deviation were used for analysis and interpretation of the findings as well as specific statements.

4.3 Organizational culture and research productivity in private universities in Uganda The first objective was to find out whether the organisational culture has an effect on faculty research productivity in Private Universities in Uganda. Using the case of Ndejje University, Nkumba University and Islamic University in Uganda the various aspects were studied namely; research culture, person culture and the reward culture of the academic staff in Post graduate studies.

4.3.1 Research Culture and Research Productivity in Private Universities

The first dimension aimed analyzing how the Universities management at different levels enables the growth and development of research. Four areas were assessed; encouragement in doing research and publishing, emphasis given to research, access to academic journals and books and supporting conference attendance. Considering the academic staff as the unit of analysis because they are the ones involved in research. The table below is a representation of the findings related to the research culture.

Table : Research Culture and Research Productivity in Private Universities

Items	Mean	S.D
You can teach well without research or doing research	1.70	1.30
The management encourages us to do research and publish	4.10	1.04
Emphasis on research has bolstered the generation of new ideas	4.43	.74
We have ready access to research books and journals either in the library or via websites	3.84	1.17
The management invites scholars to talk about the current research	3.78	1.09
The teaching workload allows staff time to research	2.90	1.39
Academic staff are supported to attend conferences	4.37	.93
Average mean	**3.60**	**1.09**

Primary data

From the table;it is evident that there is a research culture in the three Universities of Nkumba, Ndejje and Islamic University in Uganda where the academic staff agree(mean=3.60) but the responses were scattered from the mean (SD=1.09). Using the seven statements made, the academic staff indicated that research has bolstered the generation of new ideas because management encourages research and publication, there is access to books and journals, support to attend conferences. The staffs acknowledge that they cannot teach without research without research however they are not really sure if the teaching workload is enabling to do research. It is worth noting that research in the three universities has been prioritized .Research is powerful in generation of knowledge and brings about new approaches and the existing knowledge is also reinvigorated so as to apply to the current situation which is required by the students. Generation of new ideas enables the Universities to remain relevant and empowers them to be the custodians of knowledge in the country and the world at large.

However there is need for additional effort to realize the full benefits of a research culture, in the face to face interviews one respondent said; The University does not have a research policy, there is a draft that is yet to be standardized and presented for approval

More to this is documentary review of the list of publications for the study period of 2010-2013; *one Published book, one University journal with seven articles, three University journals, four articles in other journals, one conference proceeding with one presentation, two conference presentations, one Magazine and four News Bulletins (Research Agenda, 2013).*

Given the above responses from the questionnaires and face to face interviews its observed that the research culture in the three universities has not yet gained grip in the Universities academics work environment.

4.3.2 Person Culture and Research Productivity in Private Universities

In the second dimension the academic staff as persons that participate in the research activities were analyzed to appreciate their input in encouraging research productivity. The major areas of concentration included time spent, making of research plans, networking and mentorship of the academics. The following table presents the views of the respondents with regard to the items put to them during data collection.

Table: Person Culture and Research Productivity in Private Universities

Items	Mean	S.D
I spend a lot of time on research.	4.57	.71

Involvement in research keeps me informed of latest theories and practices in my field.	4.47	.70
Involvement in research encourages me to make plans for research	3.69	1.20
Through research I have established a network of communication with other researchers	3.35	1.05
My research discipline has fostered the growth of personal mentorship	4.02	.85
Average Mean	**4.02**	**.90**

Primary Data

From the findings presented in table, it is evident that academic staffs have developed a person culture in research in the three Universities. Their responses showed agreement (mean=4.02) and the concentration of the responses was around the mean (SD=.90) as a matter of emphasis. Considering the academics staff view on time spent on research there was total agreement in line with the benefits of keeping individual staff informed of the latest theories and practices in their fields. The growth of personal mentorship network and the research plans help the staffs in prioritising research activities. There is more to be done on establishing a network of communication with other researchers. The increased pressure from Universities on the academic staff to research has greatly changed their work habits, to the extent that some utilise the holidays and the nights to research. Amidst the existing teaching work load there is time spared to engage in research.

However one of the interviewees noted:
Research among the academic staff is like an animal that needs to be demystified, little time has been allocated to it because the demands are more than the money can facilitate. The academic staffs are always on the move from one University to another putting together small amounts of money to make ends meetPGD-02)

Another respondent said:
The Universities have not made it possible for the staff to have ample time to research; the teaching workload is very heavy considering the weekends, evening, classes and other assignments. Given that the Post graduate School does not recruit staff separately they depend on the existing human resources that are already strained at the undergraduatePGD-03)

This implies that the Universities have not incorporated the element of research in the time allocated for teaching but the staffs take it upon themselves to research because the two are indispensable. It is important to note that given a consideration by management to create time by reducing teaching load the productivity in research would remarkably increase.

4.3.3 Reward Culture and Research Productivity in Private Universities

In this dimension the academic staffs are encouraged to work by way of accessing rewards the range from recognition, office space and also student support. This stirs up individual performance which in turn improves the university reputation and also knowledge base. The following table 4.8 presents the views of the respondents with regard to the items put to them during data collection.

Table : Reward Culture and Research Productivity in Private Universities

Items	**Mean**	**S.D**
The organisation offers merit pay for publishing in refereed research journals.	2.62	1.21
The organisation offers desirable teaching assignments as a reward for publishing in refereed research journals.	2.82	1.17

The organisation offers travel money as an incentive for publishing in refereed research journals.	2.69	1.29
The organisation recognises my efforts to publish in refereed research journals.	3.38	1.06
The organisation offers more or improved office space or facilities for those who publish in refereed research journals	2.45	1.17
The organisation increases student support for individuals who publish	2.57	1.28
The organisation offers promotions based on research output	3.49	1.08
The organisation improves my professional status because of research	4.55	.58
Average mean	**3.07**	**1.12**

Primary Data

With reference to the above table 4.8 the findings revealed that the academic staff were not sure (mean=3.07) and deviation from the mean (SD=1.12) of the available reward culture in the Universities of Nkumba, Ndejje and Islamic University in Uganda. This is evident with the analysis of the eight areas where the staffs agreed with the contribution of research to improving of their professional status. They were not sure of the recognition of their efforts to publish in refereed research journals, offering desirable teaching assignments as a reward for publishing in refereed journals, offering travel money as an incentive for publishing, merit payments for publishing and increased student support. Rewards available seem to be written in the space with no clear documentation for staff to appreciate. Rewards such as organization offers more or improved working space attracts responses that disagree yet

working space for researchers is important given that there is a lot of working paper. The universities under study have had an oversight in some areas that contribute to rewards in research. Yet universities have of late attached great value to research as individual academic staff benefit through eligibility to upward mobility and more assignments to productive researchers. The inter-institutional mobility cannot be over emphasized. Most prestigious Universities are considering the publication rates as a basis of engaging academic staff. This is because research is a prime indicator of an academic work.

The emphasis on areas that have not been fully addressed is obtained from one of the face to face interviews with responses such as;

> When carrying out research a lot of paper work is involved and this calls for enough storage space especially with the hard copies which are preferred. But the University has not taken action on the request for office space. This means that one has to move with lots of paper and actually at some point interest is lostPGD-01)

Considering the above responses it appears the reward structure in the Universities under study is not yet appealing to the academic staff which leaves the research productivity low. Rewards are very important to motivate the academic staff and they are both financial thus money and non-financial such as more teaching assignments and improved working space.

4.4 Employee Job satisfaction and Research Productivity in Private Universities in Uganda

The second objective of this study was to establish the effect of employee job satisfaction on research productivity in private Universities in Uganda. To meet this objective the academic staff's job related attitudes were examined and these included; job security, career advancement and communication. These aspects are in congruence with the three important

job-related attitudes of job satisfaction, job involvement, and organizational commitment. A

representation of the data collected from the field is made in the tables below;

4.4.1 Job security and Research Productivity

The first dimension of employee job satisfaction was job security, which varies greatly depending on the different climates

such as economic and work schedules. Job security was analysed with a focus on the tenure of the academic staff and what effect it has on the research productivity.Job security determines the amount of research input an academic staff offers to the university. The table below shows the responses of the respondents from the three Universities under study.

Table : Job security and Research Productivity

Items	Mean	S.D
Tenure is renewed depending on research productivity	2.20	.63
The environment is conducive to access what facilitates my job	2.53	1.05
My productivity has increased because of renewed tenure	2.45	.13
My goals are aligned to the university goals	2.45	1.00
I worry about losing my lecturing job	4.37	.60
Average mean	**2.9**	**.90**

Source: Primary Data

Table above shows that the academic staffs are not sure of their job security (mean=2.9) and the responses are concentrated at not sure (SD=.90). Illustrated by the four variables where academic staffs worry about the loss of their lecturing jobs, renewal of tenure according to the staff is not linked to research in the universities. Job insecurity creates a tense atmosphere for research productivity. Downsizing and restructuring is a new phenomenon in the workplaces and Universities are not exceptional and as such many academic staff fear for their jobs. For most workers, being able to count on a steady job and regular promotions is a
thing of the past. Even the most profitable companies have lain off workers. For the academic staff in these Universities, chronic job insecurity was a major source of stress and seems to have led to low research productivity. When the University work environment is conducive in terms of job security the academic staffs give their best and this contributes to the overall goal of the institution. They are always willing to stay and available to handle different tasks assigned to them besides the teaching. There is also high work satisfaction and the loyalty to the University. Short of job security the productivity in research remains low because there is no excitement for one to work. In line with the responses from the questionnaire is the response from the interviews.

One of the interviewees responded in respect of the job security by saying; The University has created a tense atmosphere for staff that they hang around Campus to pass time since the more visible one is the more hardworking they are perceived to be.(PGD-03)
Another respondent said,

What frustrates is that policies are not followed at all times some staff are favored to the extent that certain clauses are avoided when dealing with them. If the stay of an academic staff in the University is based on the publications made then there should be uniformity in implementing itPGD-02) . Job insecurity according to the responses is a negative influence on the research productivity of the academic staff in Nkumba University, Ndejje University and Islamic University in Uganda mostly likely causing low publication counts.

4.4.2 Career Advancement and research productivity

Career advancement as a second dimension was conceptualised as more intrinsically related to the levels of satisfaction and feeling of accomplishment for the academic staff in the three Universities under study. Putting into perspective the personal achievement and receiving personal recognition rather than materials rewards. Below is a table 4.10 representing the data collected.

Table: Career Advancement and research productivity

Items	Mean	S.D
Through research my abilities and willingness to take risks and to overcome obstacles has been built.	3.41	1.22

Research has provided opportunities for doing work independently	3.20	1.13
Involvement in research has enabled me to bargain agreements and standardize faculty work.	4.08	.69
The institution has recognised my achievements in the area of research.	2.75	1.09
Average Mean	**3.36**	**1.03**

Source: Primary Data

From the responses the academic staffs are not sure (mean=3.36) of research being a contributor to their career advancement in the three Universities of Nkumba, Ndejje and Islamic University in Uganda and the responses are widely spread from the mean(SD=1.03). Academic staffs agree that they have been able to bargain agreements and standardize faculty work. For the other variables staffs are not sure of say research contribution to build muscle to take risks and overcome obstacles, independence and recognition of achievement by the institutions. With an individual well developed career plan the Universities benefit from the academics efforts to perform to the expectation of their employers. They are part of the
Universities as they continue developing in particular areas of their competence which in turn are needed by the Universities to achieve their goals.

The interviews also concretize the facts of the trend of not being sure about the career advancement. In the case where one respondent remarked;

> Most of the academic staffs come into the academic career before deciding whether to pursue it or not, as such this affects their productivity because they keep wondering up and down before they settle at a later age in life. A number of fairly active research productive academic staffs are not aware of what is rewarded by the institution and what is necessary in order to be promoted (PGD-03)

Given the above information the career advancement aspect remains vital only if the individual fits their personal goals into the organisational goals to increase the research productivity. In this instance where academic staffs do not settle on their career advancement plans the research productivity obviously stays low.

4.4.3 Communication and research productivity

The third dimension illustrates the systematic flow of information back and forth amongst academicians to regulate the quality and quantity of knowledge coming through research.

The different areas of interest entailed the interaction, technology, cost, timeliness and also the channel of communication.

Table below is presented to show the data collected in regard to communication as part of academic staffs‟ commitment to the organization.

Table: Communication and research productivity

Items	Mean	S.D
Research has increased my interaction with the academic world	2.90	1.04
The cost of communication in research is affordable	2.29	1.08
Technology has fastened the communication in research	4.18	.71
There is timely information in the field of research	4.12	.84
The university has given back to the community through disseminating knowledge (publishing research).	1.38	.60
Communication in research has encouraged physical interaction of researchers.	1.40	.55
Average mean	**3.25**	**.96**

Source: Primary Data

From the table above it is evident that the academic staff in the Universities of study are not sure of how communication influences research productivity (mean=3.25) and the responses are concentrated around the mean (SD=.96).Six variables were used to analyze the communication as a job related attitude towards research productivity. The responses indicated that technology has fastened communication in research as well as timely information release. However staffs are not sure of the increase in interaction with the academic world and not sure of the cost of communication in research being affordable.

Worse still is the universities have not benefited from physical interaction of communication in research. Academic staff also strongly disagreed with the fact that communities have benefited from dissemination of research findings. Increased communication with other academicians through research leads to accumulation of knowledge for the Universities. As such improving the standards of service delivery and the content developed is in line with the job market. With telecommunication where different devices are used in the Universities under study the whole world is compressed and contacts are made through interactions to accommodate appropriate teaching styles and instructional materials. In a university setting the community is part of stakeholders who should benefit from research findings. One of the respondents interviewed noted: When we get the grants one of the ways of accountability is by disseminating the findings to the university community both the internal and external (PGD-01).
University researchers need to communicate with other researchers to be able to remain robust and relevant because the world is developing at a fast rate and if at all they have to remain in the competition there is need to move at a considerably fast pace.

4.5 Resource Availability and Research Productivity in Private Universities in Uganda The fourth objective of this study was to establish the relationship between resource availability and faculty research productivity in Private Universities in Uganda. The resources in this study denoted the essential elements used by the academic staff to obtain the information to contribute to the body of knowledge which tantamount to research output in the Universities. They are conceptualised as materials, money, machines and manpower.

4.5.1 Materials and research productivity

The materials included the soft and hard copy aspects of getting the facts that are required by the academic staff. These

precipitate the process of research for easy, reliable and authentic information. The table below shows the responses obtained from the findings of the study.

Table: Materials and research productivity

Items	**Mean**	**S.D**
Materials like online materials and print have expedited the development of my reading lists.	3.16	.83
There is always timely supply of research related materials e.g journals	3.10	1.12
There is easy access to all materials I need using my favorite information search engines	3.51	1.11
Access to relevant literature has kept me abreast of the current literature in my discipline	3.22	.98
Research works are kept safe and are not accessible to unauthorized persons	3.24	1.15
We have a well maintained data base.	3.00	1.03
Averages	**3.20**	**1.04**

Source: Primary data

From the findings the overall mean (mean=3.20) represented response of not sure of the different materials that facilitate research with a deviation (SD=1.04). Using the six areas examined, the agreement was in response to „"there is easy access to all materials needed by the academic staff using search engines. On the other hand staff are not sure of the following; how safety and access of research works is ensured, whether access to relevant literature in their fields has kept them abreast of the current literature in their disciplines, whether materials online and in print has expedited the development of their reading lists, timely supply of research related materials and availability of a well maintained data base.

It seems most of the academic staff use the search engines to get information from their homes or outside the University gazetted areas. The campus networks might also be highly used by the students and the Universities have no provision for the academic staff. It is worth

noting that availing the materials that are relevant to the academic staff to great extent increases research productivity. In line with this is the interview response where one respondent said,

> The University subscribes to a yearly research based database called EBSCOHOST. At the beginning of every calendar year, a fee of UGx.6, 000,000 is paid under a consortium of University libraries in Uganda. All University computers are networked to this database (LIB-01).

Such an initiative is meant to keep the University community connected to the internet services so as to access materials when needed. However the academic staffs have not fully utilized the available opportunities to use the materials for research which in turn improves research productivity.

4.5.2 Monetary support and research productivity in Private Universities

Involvement in research activities calls for money to facilitate the smooth flow of the planned activities. In this study the areas of focus included; budgets, financial management systems and also grants. Below is a representation of the data collected in respect of the monetary support.

Table : Money and Research Productivity in Private Universities

Item	**Mean**	**S.D**
There is a budget for research education for academic staff	3.80	.96
Money is set aside for research related purchases such as equipment, recruiting faculty researchers etc.	2.98	1.04
There has been financial support to execute leadership, coordination, control and measurement of performance in research.	2.90	1.04
There has been co-funding from private companies for research.	1.45	.51
The money my faculty received in the academic year 2011/2012 was higher than the previous.	2.84	.91
Grants have been received in the past year to facilitate research.	1.45	.51
Averages	**3.20**	**.10**

Primary data

The findings in table above revealed that respondents were not sure of the money available to support research (mean=3.20) and there was almost no deviation (SD=.10). In regard to the five areas the academic staff agree that there is a budget for research education to facilitate the learning and skills development in research but are not sure of money set aside for research activities like recruiting faculty researchers, support for coordination, control and measurement of the performance of research in universities and money released for academic years 2011/2012 and the previous year.

Academic staffs strongly disagreed with the statement that private companies fund university academic research to encourage co-authorship and that grants were received for the previous year to facilitate research. However a respondent interviewed said;

> The university sets aside a grant for academic staff to compete for it. For example in 2009 the grant was 50million and each group got 10million. While in 2013 the grant has been increased to 60million and groups are being constituted to compete for the money (PGD-01)

Another respondent observed:

Some of these Private Universities don't even want to hear about research they are
only interested in us making for them money. Even for these journals, conferences
You have to foot the bills by yourself while you generate new knowledge which they circulate to other lecturers for teaching.

As much as some universities inject money to encourage research others have not supported the academic staff in monetary terms to disseminate and publish their findings which deters them from growing their interest in research. As such Universities publication counts are greatly affected and so is the reputation.

4.5.3 Machine availability and Research Productivity in Private Universities in Uganda In this dimension the different types of machines for inputting data, processing, storage and outputting are included; computers, printers, dissemination of the findings gadgets and their availability entails the soundness for use by the academic staff.

Table below is a representation of the data collected in relation to machine availability.

Table: Machine availability and Research Productivity in Private Universities in Uganda

Item	Mean	S.D
The university has enough computers to encourage research	3.29	1.29
The university has high performance computing equipment.	3.20	1.50
The university has a fully equipped library for research (photocopier, printer)	3.02	1.20
The university has data collection devices such as cameras and recorders.	2.98	.95
The university has equipment to support to disseminate research findings for example; projectors, generators and Public Address Systems.	3.14	1.61
Averages	**3.13**	**1.31**

Primary data

The findings presented in the above table show that the academic staff are not sure if the Universities have supportive machines to encourage research (mean=3.13) and the responses are spread far from the mean (SD=1.31).The academic staff indicated that they were not sure of all the five areas highlighted such as enough computers, availability of high performance computing machines, equipment such as photocopiers, printers for outputting information and data collection gadgets such as cameras, recorders and dissemination such as projectors, generators and Public Address Systems. This might imply that the Universities have no or have inadequate machines for academic staff to utilize for their research in terms of information search, storage and also dissemination. This sends signals that less attention has been put on machines for the academics research outputs. A statement made about the enough computers to encourage research, the high performance equipment, devices like cameras and recorders for data collection had responses of not sure. Yet machines in the modern age are vital for information capturing, processing, storage and easy retrieval of information for dissemination to the different stakeholders.

In regard to the high performance of the equipment one respondent said; the band width at times cannot accommodate so many users using the database (LIB-03)

The number of machines available and their performance in the Universities under study seems not adequate to support research for academic staff which presents another probable reason for low research productivity.

4.5.4 Manpower and Research Productivity in Private Universities in Uganda

The last dimension of resource availability focused on the staffs that are the manpower such as the academic staff and their level of confidence to get involved in research and the support or help offered from both the Masters and Ph.D students and the clerical staff in the library. This is because the persons involved in research and the support available increases the research outputs for the Universities. For example if the students support in data collection was adequate; then the academic staff

would spend time to analyzed the data and disseminate information to the different stakeholders. Below is a table presenting the data collected in relation to manpower.

Table: Manpower and research productivity in Private Universities in Uganda

Item	Mean	S.D
Involvement in research has increased my level of confidence to publish	3.55	.98
The skilled faculty researchers transfer knowledge acquired from their own scholarly works to beef up the classroom teaching	3.48	1.04
Sabbaticals are given to staff involved in research	3.49	1.12
There is clerical assistance provided for staff involved in research	3.24	1.15
Training and development is provided to enhance research for staff.	3.57	1.20
Masters and PhD students are have been used to help in collection of data	3.39	1.15
Averages	**3.45**	**1.12**

Primary data

From the findings presented in table above, the academic staff showed that they are not sure of the manpower influence on research productivity in the three Universities under study (mean=3.45) and the deviation from the mean is (SD=1.12). Analyzed using the six statements academic staff agreed that training and development had helped enhance their research skills and this is in tandem with the budget for research education. The trainings have been in areas like the use of Statistical Package for Social Scientists (SPSS), general workshops where other researchers are invited to present their papers. Involvement in research has also increased staff confidence in publishing for example four academic staff from one of the universities were able to publish in the Nkumba University Business Journal.Vol.12, 2013. In the other aspects staff are not sure such as sabbaticals for academic staff involved in research, whether academic staff used their scholarly works to beef up

teaching in the classroom, whether masters and PhD students were involved in data collection for academic staff and assistance from clerical staff to beef up research productivity. Training received has enabled them to fully participate in the Universities activities to increase on their publication counts.

Trainings equip the academic staff with the knowledge and the skills of conducting research and builds their confidence in presenting the findings to the stakeholders who the end users of the information. In regard to trainings the interviews obtained responses such as;

> The University has and is improving the 24/7 service in their library where the
> Customer care team for clerical support (qualified staff) is available all the time. This staffs are offered trainings to enhance their skills in searching the database since they are to attend to a number of queries. They work in shifts and each team has a leader (LIB-01).

Regarding trainings in research the interviews had responses such as;

Trainings have been conducted in different areas Statistical Package for Social

Scientists for about 75 academic staff.
However the challenge is on the individual priorities where they prefer to use such time to move to other institutions to offer part time services(LIB-02).The Universities have done their part of training the academic staff to refine their skills in conducting research in the bid to increase on the research outputs however there seems to be a problem with the individual academics.

4.6 Relationship between the variables

The Pearson Correlation coefficients were used by the research to establish the degree/measure of relationship/association between the two variables. Each dimension of the independent variable was compared with research productivity and the -1 represented a strong negative correlation,+1 represented a strong positive correlation and values close to zero indicating weak or no association at all between the two variables. The findings obtained from testing the hypotheses using the Pearson moment correlation coefficient method are shown in table.

Table : Pearson moment correlation coefficients for testing the hypotheses

Variables	Statistics	Culture	Employee job satisfaction	Resource availability	Research productivity
Cult	Pearson Correlation	1	.243	.488**	.309*
	Sig. (2-tailed)		.085	.000	.028
	N	51	51	51	51
Emp	Pearson Correlation	.243	1	.081	.045
	Sig. (2-tailed)	.085		.571	.755
	N	51	51	51	51
Res	Pearson Correlation	.488**	.081	1	.659**
	Sig. (2-tailed)	.000	.571		.000
	N	51	51	51	51
Prod	Pearson Correlation	.309*	.045	.659**	1
	Sig. (2-tailed)	.028	.755	.000	
	N	51	51	51	51

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

4.6.1 Culture and research productivity in Private Universities in Uganda

The findings indicate a significant, strong and positive relationship between culture and research productivity in the academic staff of the Universities of Ndejje, Nkumba and Islamic University in Uganda ($r=.309^{X}$,Sig. =.028, N=51) · The hypothesis in this dimension stated that there is a relationship between culture and research productivity in the Universities under study; and it was accepted. As such the more established the culture of research is in the Universities of Ndejje, Nkumba and Islamic University in Uganda the more the output in research.

4.6.2 Employee job satisfaction and research productivity in Private Universities in Uganda

The findings indicate that there was a significant, positive relationship between employee job satisfaction and research productivity in Private Universities in Uganda(r=.045,sig=.755,N=51).The second hypothesis which stated that there is a relationship between the employee job satisfaction and research productivity in the Universities of Ndejje, Nkumba and Islamic University in Uganda was therefore also accepted. Thus there is a way employee job satisfaction can have an effect on the level of research productivity in the Private Universities under study.

4.6.3 Resource availability and research productivity in Private Universities in Uganda The findings showed a significant, strong and positive relationship between the resource availability and the research productivity in Private Universities in Uganda(r=.659**,Sig.=
.00,N=51). In relation to the third hypotheses which stated that there was a relationship between resource availability and research productivity in the Universities of Ndejje, Nkumba and Islamic University in Uganda was accepted. This implies that the more resources like money, human resource support, and machines are availed to the academic

staff the more research output will be realised.

Research productivity among the academic staff is very vital and as such needs to be supported by a number of factors that are both institutional and individual in nature. However for this study the institutional support is instrumental in facilitating the activities through material provision, funding, machines and also academic staff that appreciate research.

5.0 Discussion, Conclusions and Recommendations

5.1 Discussions of Findings

This study had findings that can enable the making of conclusions, they provided grounds to either agree/confirm or disagree with previous studies as well as new contributions to the field of research productivity in reference to the dimensions of organisational culture, employee job satisfaction and resource availability. To ensure a systematic flow of the discussions the findings were aligned in respect of the objectives.

5.1.1 Organisational Culture and research productivity

Organizational Culture is a fountain from which the Universities originate to define what they are to the public. Pratt et al. (1999) in their report indicated that a teaching dominated school in New Zealand improved their research profile and reputation through implementation of policies and research related reward systems. The beliefs, norms and values of research in the Universities under study have greatly been determined by management's role of encouraging the academic staff to get involved in research so as to improve their teaching and increase on the publication counts (Williams et.al, 1993; Pratt et al., 1999). The dictum of „"Publish or perish"" "has constantly been echoed as a reminder to include research in the work life of staff (Ho, 1998). These efforts are intended to make the Universities visible especially in the web ranking that depends on the research done to contribute to the body of knowledge and the
reduced government funding (Mok, 2005; Pritchard, 2004). There is a prevailing research culture in the universities under study through actions like the establishment of research Units, setting up committees, drafting research policies, University research manuals and research grants. Libraries are being equipped to allow conducive environment for researchers to carry out research at any place and at any time for example the 24/7 service Library in one of the Universities of study (Research Grants Guidelines, 2012/2013; Research Agenda,
2011/2012).

However, the Universities have been touted by heavy teaching workloads for the academic staff that suffocates the nascent research culture. Time becomes dear for the researchers to develop concepts and the reading lists (Borg, 2007; Hemmings et al., 2007; Griffiths et al.,
2010; Wood, 1990).Although Ito &Brotheridge (2007) in their study noted that more research time increased research productivity, but increased time for research did not necessarily compromise teaching time. No clear communication network for collaboration yet it would be a recommended ingredient for easy publication (Williams & Cable, 2003).Lack of well-established financial and non-financial rewards to motivate the researchers to publish and also disseminate findings. Rewards stimulate innovation and creativity since the researchers are motivated to work (Hemmings et al, 2007)..Once the Universities blend the research culture with the person culture and reward culture the organizational culture to a great extent contributes to increase in research productivity.

5.1.2 Employee job satisfaction and research productivity

The revelation of a significant, positive relationship between employee job satisfaction and research productivity in Private Universities in Uganda is worth discussing at this stage. The academic staffs concern/worry about losing their lecturing jobs

points to other studies which have similar results (Reback, Rockoff & Schwartz, 2011) some teachers were discouraged to raise the students proficiency and in the event that they failed to do so state would sanction them. A study conducted on Ph.D. European students in U.S indicated they preferred staying after their studies to continue the development of their career (75% of the 15,158 Europeans) because they felt safe at their jobs (Science and technology indicators, 2003).More to this are the findings that indicated job security has a negative impact on the productivity of academic staff with two effects a drop immediately after tenure and an almost flat productivity pattern (Leung, 2009).

It was quiet interesting to find out that tenure is not renewed depending on research productivity in institutions of higher learning where research is core and this has been emphasised by bodies such as the National Council of Higher Education (NCHE).A number authors have asserted that of the studies conducted institutions of higher education have tied a number of rewards such as employment, promotion and tenure to research outputs (Hemmings, Rushbrook & Smith, 2007; Ramsden, 1994). Research has become so prevalent in most countries with individual excellence being measured on the basis of research outputs and institutionally, contribution to research is encouraged through reward systems such as appointment, promotion and tenure (Hum, 2000; Ito & Brotheridge, 2007; Sharobeam & Howard, 2002). Based on this evidence the universities under study need to make the link between research productivity and renewal of tenure clear to the academic staff so as to increase the pressure of obtaining research outputs.

5.1.3 Resource availability and research productivity

The resources that were identified in this study as supportive or required to encourage research by the academic staff included materials, money, machines and manpower (Lonnqvist, 1990; Zainabu, 2001, Kendagor et al., 2012, State of HE, 2010). The Universities under study have research units that should be fully flagged with reading materials for researchers, a budget to cater for the financial needs(Barry,1997/1998), equipment for collection, processing, storage and retrieval for dissemination of findings to the stakeholders (PMBOK,2008).

The Universities under study have not come out strongly in availing resource base for improving research productivity even on the use of search engines like yahoo, Google among others to access materials. Curtis, Weller & Hurd, (1997) in their study indicated that academic staff preferred accessing electronic databases outside the campus. Though Zhang, (1998) used the databases made available on the campus network. As such emphasis on the access of materials is important. Emphasis is also made on the use of materials such as; online and print and these awesomely expedite the process of developing a reading list to keep the researchers on course (Zhang, 1998; Bonz, 1992).

Literature increases the access of latest updates in the academic staffs‟ disciplines to feed into the teaching (Lonnqvist, 1990). The academic staff agree to the existence of a budget for research education which is a great opportunity to revitalize research because for best results the monetary aspect is required (Barry, 1997/1998; Wadesango, 2014, Bozeman & Gaughan, 2007; Slaughter & Rhoades, 2004; Boardman & Ponomariov, 2009).There is little information from the academic staff about how the available machinery boost research in the universities under study yet this needs to be widely known and used. In the public libraries report (2000) the big idea is to have all the libraries equipped with computers and the networking with high performance according to Apon et al.(2010) is necessary to make it complete. Other machines like telephones, cell phones, generators, fax machines, self- operating photocopiers (Zainabu, 2001; Menon, 2010).Although Fried (2008) study indicated that machines like laptops can distort the users and the individuals around them from concentration.

Manpower is another resource for universities especially for the different disciplines to enrich the teaching. Academic staff with qualifications to deliver as per the expectations of the students keeps the universities reputation good (Snell & Bohlander, 2013). The performance of the academics lies majorly on the Universities level of investment to hone them into the kind of manpower they expect which can greatly be done through training (Mirza-Amini, 2005 as cited in Monavaryan & Farmani, 2012; Bandura, 1997; Williamson & Cable, 2003; Prince, Felder & Brent, 2007). Sabbaticals as leaves for productive researchers enables the manpower to take off time to research as noted by Kang,Bai,Miller & Michael(1999) as cited in Cooper(1932) and Involvement of persons at different levels to support the research process such as masters and PhD students and clerical staff increases the chances of growing the publication counts as per Kyvik,1991 as cited by Ingenjörsvetenskapsakademien,(2012). The resources available are important for university research productivity to increase as much as the universities of study have not fully developed this area.

5.2 Linkage between the Institutional theory and research productivity

Institutions set the stage for the research performance of their faculty members. The selection of new faculty members is the most critical process for developing and strengthening a culture of research. Institutions with high Doctoral prestige produce the graduates that are the best sources for other institutions to recruit productive faculty members (Creswell, 1986). Ideally, the chair and members of faculty recruiting committees should themselves have high research performance. This is of particular relevance because universities also value research from the standpoint of prominence of their faculty members in

obtaining competitive research grant funding, which increases the reputation of the institution.

Several studies demonstrated that there is a relationship between research productivity and salary. Higher salaries may result in attracting productive faculty, while at the same time minimizing the possibility of losing active faculty to other institutions (Jacobson, 1992; Pfeffer & Langton, 1993; Tornquist & Kallsen, 1992). Kelly and Warmbrod (1986), stated that „perceived institutional and departmental supports for research are seen as the most important enablers for research productivity" (p.31). Jones, Lindzey and Coggeshall (1982) said the amount of direct expenditures on material support can be used as an indicator of research performance. This is consistent with Etzhowitz (1992) who found that the ability to secure research funding has become a criterion for success. Funding grants normally include salary money for the professor and funds that are available to hire other professionals to help teach and conduct effective research. In 1998, Dundar and Lewis developed and tested a more comprehensive model of faculty research productivity and found that library expenditures measure represented one of the important institutional attributes. Where there was increased demand in expenditures for library facilities, it appeared that the research productivity of faculty staff also increased (Payne & Spieth, 1935).

Generally, the amount of time a faculty member chooses to spend in research activity affects their research productivity (Cohen & Gutek, 1991; Vasil, 1992). Financial support for Faculty members encourages them to self-motivate and reallocate their time to do research (Slaughter
& Rhoades 1990). A study of academic work by the Ontario Council on University Affairs found that staff in the highest position output group reported working an average of 51 hours per week which included 24 hours on research and 20 hours on teaching. Staff with the lowest publications outputs reported an average of 43 total hours per week, made up of 12 hours on research and 24 hours on teaching. The high research producers found additional
time for both research (8 hours) and teaching (4 hours) (Skonik, 2000). A report conducted by Oklahoma State Regents for Higher Education (1993), stated faculty members felt they spent too much time in administrative roles and not enough time in personal development activities.

Some researchers found that time spent on research affects research productivity. Liddle, Westergren and Duke (1997) studied time management in relation to time spent on research activities and investigated correlations with publication productivity. Their findings were similar to those of Bailey (1992), who showed an increase in research productivity was supported by amount of time spent on research activities. Williams (2003) found that the balance of time spent in teaching, research, service and administration can explain a significant proportion of the variance found in research productivity, while total work hours did not explain a significant proportion of variance. On the other hand, Kotrlik et al. (2002), found that time allocated to research did not relate specifically to research productivity.

5.3 Conclusions

The research set out to analyse the factors influencing research productivity in private Universities in Uganda; and a study was responded to by 51 academic staff out of 75(68%) response rate. Conclusions were then based on the research objectives that were set to guide the study.

5.3.1 Culture and research productivity

This study concluded that academic staff attached much importance to research but research outputs were still relatively low in Universities. Regarding the reward culture, the academics did not rate this highly which should in most cases be a motivation for doing/engaging in research. In relation to in depth interviews , the old culture syndrome of what is the benefit for me makes research a daunting field to trade in because the financial reward is not visible.

5.3.2 Employee job satisfaction and research productivity

It was established in this study that the academics staffs" involvement in research was influenced by job insecurity, the low levels of interaction with the academic world and the cost of communication in research such as conferences, workshops among others.

5.3.3 Resource availability and research productivity

It was noted in the study that there seems to be little or no information about the available resources that foster the growth of research. Some of these include; under utilisation of the available search engines, budgets for research and the management of such funds. In the case of a research education budget there was little information about the frequency of trainings held for research.

It is worth noting that the institutions culture is bedrock for the growth and development of research in the universities. Well established reward structure, funding of research related activities, recruitment of staff that are inclined to research by

allocating time for research definitely increases the research productivity.

5.4 Recommendations

The recommendations as obtained from the interviews conducted gave guidance on the most realistic strategies that could be explored for the academic staff and the Universities to realize how important research is and make them understand what they will gain from working on research projects. As such this calls for increased time allocation and commitment to find new knowledge to make learning interesting and finally, with appropriate university support, can produce good research results.

5.4.1 Culture and research productivity

National Council for Higher Education should set a policy on production of a given number of publications by Universities within a period of five years before their licences or charters a renewed. And given that five years are many the number should be spread out to monitor progress towards the set target per year.

Academic staff should be required to produce their annual research plans to the University research unit before the subject allocations are done. In the event that an academic staff fails to present their plans for two consecutive years their services are terminated. This may sound radical but with time this becomes part of the University prerequisite for academic staff to continue in service.

Establish Reward systems to motivate researchers to participate in research at different levels; institutional. Universities need to organisation rewards such as cars for the academician with the highest publication counts not less than five in a year. With salary increments of a set percentage say 5% attached to the more than five publications but the highest.

5.4.2 Employee job satisfaction and research productivity

Universities need to emphasise the field of research to the academics renewal of tenure to add weight to the importance and the contribution of research to the teaching role. This goes hand in hand with performance appraisals thus targets of publications should be set with the appraiser at the time of assessment.

The Universities should develop proper communication procedures about the available services to entice as well as enhance the discipline of research. Establish networks with other institutions of higher learning to enhance knowledge generation.

5.4.3 Resource availability and research productivity

Set up vibrant research units with a fully flagged staffing to plan and implement activities that promote and encourage research. Sound equipment like computers, projectors, photocopiers among others should be purchased and regularly maintained. These research units should be monitored by the National Council of Higher Education to encouraged accountability.

Universities should come up with savings schemes to facilitate the academics research projects. These funds encourage ownership and easy facilitation of activities in the event that the University has no funding at the time of a given project.

For increased productivity of the academic staff sabbatical leaves of at least three months should be encouraged to allow time for research and also establishing networks with other researchers in the various fields of study

The private sector should be encouraged through the National Council and Higher Education to partner with Universities to publish and disseminate findings of studies conducted.

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