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‘Value for Money and Efficiency in Higher Education’: Resources Management and Management of Higher Education in Uganda and its Implications for Quality Education Outcomes

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ORGANISATION DE COOPÉRATION ET
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‘VALUE FOR MONEY AND EFFICIENCY IN HIGHER EDUCATION’: RESOURCES MANAGEMENT AND MANAGEMENT OF HIGHER EDUCATION IN UGANDA AND ITS IMPLICATIONS FOR QUALITY EDUCATION OUTCOMES

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Increasingly, the role of efficient higher educational systems in the development of nation states is being recognized in a number of countries in the developing world. Higher educational institutions require adequate resources in the form of financial, material and human resources among others to attain their ‘mission of efficiency’. The management of resources has to be both efficient and effective. While many have recognized the importance of resources in the running of effective higher education systems, limited scientific research has been conducted on how efficient management of such resources can lead to effectively managed higher education systems in Uganda and how it can subsequently contribute to attainment of educational outcomes. In this paper an examination of the relationship between resource management and effectively managed higher education system with implications for attainment of higher education quality outcomes is examined from Uganda’s context. The paper builds on empirical findings from 296 respondents of selected higher educational institutions in Uganda. The results generally indicate that efficiency in resource management has a significant effective on the management of higher educational systems in Uganda; and this has wide contributions in enhancing the quality and relevance of higher educational systems. The paper recommends that all higher education systems need to create a transparent mechanism of managing resources and should develop a ‘culture’ of ‘value for money’ in the use of critical resources while planning, staffing, leading and controlling .The paper highlight policy, and managerial implications relevant for international practice and recommends areas for further research.

INTRODUCTION

‘Value –for-money-audits’ is increasingly becoming a concern in all public services and higher education is not an exception. Increasingly, the scrutiny of higher education resources and more so financial resources is moving from mere ‘balancing’ of books of accounts and missing documents to value for money audits. Systems of education in all parts of the world are in a state of change with increasing interest in upholding the notions of accountability, value for money and greater access (Gamage, et al, 2008, Mok, 2005,). A renewed focus on higher education where universities seek for more effective systems to address the increasing dissatisfaction with the performance of higher education systems has been felt in recent years(Mizikaci,2006). Reforms in almost higher educational contexts have been due to the need to ensure accountability, efficiency, managerialism as well as to take note of monetarist economic policies which advocate commoditization of education (Gordon, 1992). The demands on higher education blend themselves to internal and external forces. Externally, global forces continue to shape the higher education environment and internally, the growing demands from a variety of stakeholders increase the momentum for efficiency in resource utilization. Internationally, governments have engaged in numerous reforms and initiatives designed to improve cost effectiveness and efficiency, to increase quality of public services, to become results-oriented and citizen focused and to emphasize strategic business planning (Pollitt & Bouckaert,2000,OECD,2002). Schools, universities, and other learning institutions now encounter far more challenges and are subjected to unprecedented level of external scrutiny (Jones, 1998). Increasingly, measurement of educational outcomes is a core ingredient of assessing the value offered in any higher educational system. Try,(2008), while quoting Moore,(1995) engaged the public value theory in explaining the complexity of

moving towards results –based environment. It has been argued that public value can be described as the contribution made by the public sector to the economic, social and environmental well-being of society or nation, and has been generally defined as what the public is willing to make sacrifices of money and freedom to achieve (Kelly et al, 2002). The theory is based on the philosophy that public value is the overriding goal of public sector activities. Moore (1995) proposed a model of public value which opines that to create public value executives must address three key areas:

- Services-There should be cost effective delivery and provision of high quality services
- Outcomes-This entails achievement of desirable end results
- Trust-this is about development and maintenance of a high level of trust between citizens and government

The relevance of higher education in Uganda must match the expectations of society and this is increasingly not only a management challenge but an increasing expectation from the managers of both public and private institutions. This paper argues that effective management of resources will produce higher education outcomes as there will be effective management systems. Resource management in this context means effectively and efficiently utilizing institutional resources to accomplish goals. The paper observes that all the three key areas are directly influenced by effective resources management. In the context of higher education, educational institutions offer services to a variety of stakeholders which require a multiplicity of resources. Effective utilization of material, human, physical and IT resources leads to desirable outcomes and it creates trust.

Background to the Study

Historically, Uganda's higher education systems have developed in phases and at different historical times. The 1920s were formative years in the development of Uganda's present educational system. It was during this period that Makerere University Kampala (MUK) was founded initially as a technical college to serve students from the British East African territories of Kenya, Tanganyika, and Uganda. Following the Asquith Report in 1949, the college obtained a semi-autonomous status and became affiliated to London University. In 1953, students at Makerere College first gained London degrees. In 1956, the founding of the Royal Technical College in Nairobi ended Makerere's pre-eminence as the only institute of higher education in East Africa. A few years later, in 1961, the University College of Dar es Salaam was founded. In 1963, the three colleges merged to become the constituent colleges of the University of East Africa. By 1967-68 academic year, Makerere had achieved 20% east Africanisation of its academic staff. By 1970-71, the number of Ugandans studying at Makerere had increased to 2638. Beginning in 1971, Uganda was plunged into the most turbulent years of its history with the coming to power of Idi Amin ; and this for a reasonable period had its adverse effects on the entire education system and more so the higher education sub sector.

A number of other institutions (public and private) have since been established in the country. For example Mbarara University of Science and Technology (MUST) was founded in 1989 when the National Resistance Council passed a Statute establishing the University started as the second public university in Uganda after Makerere University. The Academic programmes of the university were tailored towards the Government effort of solving Uganda's economic problems by producing the skilled manpower in Science, Technology and managerial sciences.

Kyambogo University (KYU), as Uganda's third public university was established by the Universities and Other Tertiary Institutions Act 2001 as a merger of Uganda Polytechnic Kyambogo (UPK), the Institute of Teacher Education, Kyambogo (ITEK), and the Uganda National Institute of Special Education (UNISE). The university has six faculties with 27 academic departments offering a wide range of programmes. External programmes include a Diploma in Education Primary and a Diploma in Special Needs Education. There are also new programmes in the field of Science, Engineering, Education and Business. Traditional programmes of the three former institutions have also been updated in content and some upgraded to degree and postgraduate level. In 2007, another public university, Busitema University was established by an act of parliament, making a total of five public universities

On the side of private institutions, some few examples can be identified. First, Uganda Martyrs University, Nkozi began its first academic year in October 1993. However, the concept of a Catholic University in Uganda was first conceived as way back as the 1940s. This proposal was resurrected in the 1980s, before the Episcopal Conference endorsed it in 1989. The University was officially launched in March 1991. Students come from Uganda, Kenya, Burundi, Italy, Ghana, Tanzania and other foreign countries and the University regularly hosts students from Europe and the USA. The lecturer-to-student ratio is 1:27. The University opened with 84 students (28 female and 56 male) from all parts of Uganda. The present student population is over 2,026. Uganda Martyrs University is fully recognized by the Ministry of Education in Uganda and its degrees are conferred autonomously. The Church of Uganda established Uganda Christian University (UCU) in 1997 after upgrading 84-year old Bishop Tucker Theological College to a university. The current enrolment is about 3921 students. Foreign students account for 5 percent and come from neighbouring countries.

Uganda Management Institute (UMI) is the national centre for training, research and consultancy in the field of management and administration. The Institute began training operations in 1968 under the name Uganda Institute of Public Administration. This followed from manpower requirements and surveys carried out from 1964 with assistance of the British and American Governments. The official opening of the Institute was held on 7/10/1969. In the initial years the Institute was mandated to conduct intensive in-service training to quickly develop a cadre of Africans to assume higher responsibilities consequent upon the attainment of independence. In the early 1970s, the Institute got affiliated to Makerere University under which arrangements it offered postgraduate diplomas in Public Administration as well as Business Management. The postgraduate diploma in Human Resource Management was introduced in the mid 1980s.

Whereas the Institute of Public Administration operated as a department of the Ministry of Public service, this status changed with the enactment of the Uganda Management Institute Statute of 1992. The Statute conferred an agency status to the Institute with a great degree of autonomy under a Governing Board. The programmes of the Institute were expanded and student intake increased. By 1999 the Institute was offering a Masters Degree in Management Studies besides six postgraduate diplomas, certificate courses and short courses. The mandate of the Institute was contained in the Uganda Management Institute Statute No. 6 of 1992. The Statute was repealed when UMI was brought under the Universities and Other Tertiary Institutions Act 2001. The Institute, mandate as defined in the Act and carried over from the Statute is to promote sustainable development through:

- Imparting professional skills and knowledge.
- Providing management training, consultancy and research services.

- Conducting examinations and granting certificates, diplomas, degrees and other awards, and
- Providing documentation and information services on administrative, management, scientific and technical matters.

Quality Assurance Framework

In Uganda, the legal framework for all higher educational institutions is the Universities and other Tertiary Institutions Act, 2001, as amended, which established the National Council for Higher Education (NCHE) which in collaboration with a variety of stakeholders has developed a quality assurance framework. The quality assurance framework broadly consists of two major components namely: (1) the regulatory component at the level of National Council for Higher Education; and (2) the institutional component at each individual university level. Overall, the regulatory component of the quality assurance framework components in Uganda's higher education system consists of mechanisms at ensuring quality through:

- Institutional accreditation
- Accreditation of individual programme
- Encouragement of Merit-based admissions into higher education institutions
- Credit accumulation and transfer
- Enhancement of the quality of teaching staff
- Streamlining of examination regulations
- Emphasis on student's assessment of academic staff
- Emphasis on adequate institutional infrastructure
- Collaboration with professional bodies
- Regulating cross-border higher education

Literature Review

Forces continue to be generated that affect not only the shape and mode of operation but also the very purpose of tertiary education systems (Leveille, 2006; World Bank, 2002; 2000; 2001). The knowledge-based competition is prompting a fresh consideration of the role of higher education in development and growth (Bloom, Canning & Chan, 2006; World Bank, 2003) but developed and developing countries have responded differently (World Bank, 2000). Today, trends such as the rise of the Internet and the globalization of knowledge have the potential of creating severe problems for academic institutions and systems in smaller or poor countries (Altbach, 2006). Public services like education can be considered in terms of a number of principles, namely (1) they are a fundamental good where they are necessities of life not optional commodities, (2) they must offer universal access, (3) they have to become ever more responsive, fairer and more comprehensive fulfilling a range of needs and; (4) they must be of high quality because they are important a good not to be good (Chaharbaghi, 2007). Higher education as one of the public services has not been immune from these expectations. Globally, reforms in higher education indicate a systematic shift in the locus of control from governments to institutions. A reduced reliance on state funding and control has also been associated with introducing changes in the way activities are organized at the institutional level and these changes depended on the macro-level policy decisions on one hand and institutional level decisions on the other (Jamali, 2005, Tssai, 2007, Varghese, 2004). All the reforms undertaken have been concerned with asserting the importance of efficiency and quality in the delivery of higher education services. In both developed and developing countries the institutions are being challenged by new demands, processes and competition,

signifying a departure from the traditional bureaucratic higher education system, to a flexible collegial based approach to management. Until recently, education has largely been absent from the debate on globalization because it was thought to be a non-traded service (Larsen, Martin & Morris, 2002). But as a result of forces generated from the global and domestic environments, higher education the world over is experiencing serious challenges and the sub sector has received its stiffest pressure for reform than was the case a few years ago (Altbach, 2006, Buchen, 2005, Hill, 2003, Leher, 2004, OECD, 2004).

There are many resources involved in any economic activity and these have been categorized in a variety of ways-for example as people, capital and technology (MacLean, 2005). The resource and capability theory of the firm (Barney, 2001) and the knowledge-based view of the firm (Grant, 1991) believe that strategic resources contribute to the creation of a sustained competitive advantage. However, these views do not explain how these strategic resources are created, deployed or renewed (Ordonez de Pablos, 2004). Education, as one of the major policy areas of most countries in the world, is not immune from the global effects (Tsai & Berverton, 2007). Tertiary education has since the beginning of the 21st century operated in a changing environment with unprecedented challenges, arising from the convergent impacts of globalization, the increasing importance of knowledge as a principle driver of growth, and the information and communication revolution (World Bank, 2002). And such changes have always impinged on all areas of the academic staff, and this requires the individual, groups, departments and institutions to consider the very nature, character and even the potential demise of their present activities, Holmes & McElwee, (1995). Other challenges facing higher education world wide include the need for quality assurance and standards against a backdrop of increased participation, the expansion in student numbers, the meeting of new expectations in terms of the employability of the graduates in the knowledge society, the addressing of demands from a variety of stakeholders and the contribution to the achievement of social and political agendas such as access, inclusion and equity (Campbell & Roznyai, 2002). In the rapidly changing environment of higher education, the maintenance of high quality and standards in education has become a major concern for higher education institutions and governments (p.15). Higher education relies on the commitment of their faculty; their commitment, presence and availability to students and colleagues have an enormous influence in creating an atmosphere that encourages learning (World Bank, 2000). Such actors and stakeholders in higher education need to be availed adequate resources for the performance of their functions to contribute to educational outcomes. A variety of resources are useful in a higher education context and these are summarized in table 1.

Table 1: Categorisation of resources in higher education

Resource category	Forms
Physical resources	<ul style="list-style-type: none"> -Classrooms -Land -Plant and machinery -Buildings -Laboratories -Library -Computer laboratories -Office space
Human resources	<ul style="list-style-type: none"> -Academic staff resources -Administrative staff resources -Support staff resources -Professional staff resources -Specific competencies -Time
Financial resources	<ul style="list-style-type: none"> -Tuition Fees collections -User fees collections -Government subventions -Donations -Investments -Facilities hire -Consultancy fees
Material resources	<ul style="list-style-type: none"> -Stores -Vehicles -stationery -Equipment -Material handling equipments -Training materials -Office consumables

Results and Discussion

The sample for this study consisted of senior administrators and management of seven higher educational institutions (4 public and 3 private), policy makers from the National Council for Higher education (NCHE), the Ministry of Education and Sports (MOES), the selected students leaders, and members of the academic staff. A total of 384 respondents were the desired sample size and out of these 296 respondents filled in the self-administered questionnaires (a response rate of 77%). To assess the effect of resource management on the management of higher educational institutions in Uganda, a list of 7 items measuring resources management with a reliability $\alpha = 0.450$ was extracted from a survey instrument of 134 items and used as indicators of resource management (as the predictor variable) in Uganda's context. On the side of dependent variable, four management functions that had been extracted using exploratory factor analysis were used as measures of management. Planning was the first management function with a total of four items ($\alpha = 0.737$) and a total variance of 26.55%, staffing had a total of three items ($\alpha = 0.779$) and a total variance of 17.09%, leading had a total of four items ($\alpha = 0.672$) and a total variance of 12.73% and finally, controlling had a total of two items ($\alpha = 0.997$) and a total variance of 9.64%. The

factor analysis output generated the KMO which measures the sampling adequacy and it was 0.719, above the acceptable figure of 0.6, with the Bartlett's test of sphericity being equally strong and the results were significant (sig.=0.000).

Traditionally, education quality has referred to the achievement of planned education goals particularly in terms of student's outcomes and has been taken not to be different from education effectiveness (Cheng, 2003). The process model of quality assurance assumes that to attain education quality, there are processes—the management process, teaching process and learning process. Thus, there is a need to develop management quality indicators (leadership, decision making), teaching quality indicators (teaching efficacy, teaching methods) and learning quality indicators (learning attitude, attendance rate). Quality assurance by this model is to ensure smooth, health internal processes and fruitful learning experiences (Cheng, 2003). This paper and the results emerging argue these processes can be efficient if there is adequate resources which have to be effectively managed as well. Management plays a vital role in this endeavour. As medicine, management has some strong aspects of analysis, diagnosis, preventing and therapy, that is the ability to find solutions for problematic situations and to take decisions. Management has a deep relationship with several areas of human behavior as the competence to analyze, to plan activities, to define objectives, to formulate strategies, to decide, to motivate people in order to coordinate and control the possibility of achieving the goals (Carneiro, 2004). Regression analysis results are summarized in table 2.

Table 2: Regression results for Resource management with overall management scores and individual management functions

Overall management

	R	R ²	Adjusted R	Std. Error	SS	MS	df	F	Sig.
	432	0.187	0.160	0.8890	73.824	7.382	9	10.368	0.000
	521	0.271	0.245	0.8435	198.662	.712	280		0.000
Individual management functions									
Planning	485	0.223	0.208	0.6695	38.554(125.508)	3.855(448)	10(280)	8.602	0.000
Leading	201	0.040	0.006	0.5571	3.637(86.604)	0.364(310)	10(279)	1.172	0.310
Staffing	521	0.271	0.245	0.8438	73.524(198.662)	7.382(712)	10(279)	10.368	0.000
Controlling	777	0.604	0.590	0.6321	167.127(109.424)	16.713(400)	10(274)	41.830	0.000

This study as portrayed in table 2 indicates that overall, resources management was found to have R² =0.271(27.1%) and the adjusted R-Squared was found to be 0.245(24.5%) with p-value =0.000. This implies that resource management accounts for a total variation of 27.1% in effective management of higher education in Uganda and the results are statistically significant at 99% confidence level. To further understand the relationships and extent to which resource management affected the individual management functions, table 2 shows the correlation and regression results for each of the four management functions. The table shows the R, R², R-squared; standard error, sum of squares (SS) for the regression and residual (indicated in parentheses), the corresponding mean square values (MS) with respective degrees of freedom, the F-Value and the levels of significance for each of the four management functions. The 'multiple R' (0.485 for planning for example) indicates the

correlation between the actually observed dependent variable and the predicted dependent variable (i.e predicted by the regression equation). 'R Square ' is the square of R and is also known as the 'co-efficient of determination'(0.235 for planning) and it tells us what percentage or portion of the sample variation in the dependent variable can be attributed to the independent variables, with the adjusted R^2 (0.208 or 20.8%) giving an estimate for the population value of R^2 . In the above model, the results indicate that 23.5% of the planning scores are accounted for by resource management. The standard error of estimate (0.6695) gives us an indication of the average spread of observed planning scores around the predicted regression line.

Other than the regression results, the table also gives a summary of ANOVA results for all the four management functions. The above ANOVA table decomposes the total sum of squares into the regression (=explained) SS for planning (38.554) and residual (=unexplained) SS (125.508). The ratio of regression sum of squares over the total sum of squares, (which is $38.554/164.057 = 0.235$, which is the percentage of variation accounted for by resource management in planning as earlier described. The F-test, which is the ratio of the average deviations of the regression line from the sample mean (mean regression SS) and the squared deviations from the regression line (=mean residual SS) is presented in the table for each of the management functions. It represents the relative magnitude of explained to unexplained variation. From the above table, the F-tests for all the four management functions except leading are highly significant ($p=0.000$), thus we reject the null hypothesis that resource management does as an independent variables does not predict the planning ,staffing, and controlling. The null hypothesis underlying the f-test is that: all dependent variables are not affected by resource management. As can be seen from table 5, resource management accounts for a variation of 22.3% since the $R^2=0.223$ and Adjusted R-Squared =0.208(20.8%) with significance value of 0.000. The sum of squares(SS) for the regression model as seen from the table is 38.554 for the regression and 125.508 as per the values in parenthesis and the means square(MS) was found to be 3.855 and 0.448 for the regression and residual figures respectively($t=8.602, df, 10, 280$). Overall, it was found in the study that resource management significantly influences the planning of higher education in Uganda. This strategy will contribute to enhancement of quality and realization of educational outcomes. In agreement with the existing literature, ttraditionally, education quality has referred to the achievement of planned education goals particularly in terms of student's outcomes and has been taken not to be different from education effectiveness (Cheng, 2003. The process model of quality assurance assumes that to attain education quality, there are processes-the management process, teaching process and learning process and these certainly have to be planned. Edwards Deming,(1982) in his widely publicized '14 principles of management' urged managers to continue to focus on customer needs and desires while instilling constancy of purpose, a fact that makes managers take the overall responsibility for quality. In the context of this paper, a highly competent and motivated teaching staff and a supportive professional culture are essential in building excellence. Staff numbers, qualifications, deployment, and remuneration are central in determining the quality of instruction (World Bank, 1994). Comparatively, by analyzing Phillip Crosby's, (1976) definition of management as being responsible for establishing the purpose of an operation, determining measurable objectives, and taking actions necessary to accomplish those objectives, it is discerned that planning remains a critical management function that can effectively be exploited by higher educational institutions to attain educational outcomes.

The findings have indicated that if higher educational institutions in Uganda can effectively manage the variety of resources, it can be a recipe for effective planning, staff management as well as effective monitoring and controlling; outputs, that this paper argues

will lead to quality and attainment of educational outcomes. There are many resources involved in any economic activity and these have been categorized in a variety of ways-for example as people, capital and technology (MacLean, 2005). The resource and capability theory of the firm (Barney, 2001) and the knowledge-based view of the firm (Grant, 1991) believe that strategic resources contribute to the creation of a sustained competitive advantage. However, these views do not explain how these strategic resources are created, deployed or renewed (Ordonez de Pablos, 2004). This paper observes that all the three key areas are directly influenced by effective resources management. In the context of higher education, educational institutions offer services to a variety of stakeholders which require a multiplicity of resources. Effective utilization of material, human, physical and IT resources leads to desirable outcomes and it creates trust. All processes of higher education that does not dependent on resources as inputs to the transformational processes of higher education. Higher educational institutions in Uganda should manage their resources not only efficiently but also effectively. This paper argues that there should be fundamental principles for the resource management.

Table 3: Principles of resource Management

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1. Efficient and effective utilization of material resources
 2. Strategic human resource management
 3. Accountability in financial management
 4. Procurement and disposal of resources
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Higher educational institutions as earlier argued control a variety of resources. These resources must be effectively and efficiently managed. Firstly is the principle of effective and efficient utilization of resources. This principle of resource management demands that each individual within an institution of higher learning should optimally utilize the resources they are entrusted. Ranging from the material resources, through the human resources, to the financial and IT resources for example, efficiency to achieve value for money is expected. Secondly, higher educational institutions need to strategically engage their human resources. Human resources are arguably the greatest and costliest business asset and organisations must appreciate that people are all different and they have different profiles. They all bring different life and employment experiences, qualifications, interests, skills, abilities and competencies. Earlier in this paper, it was presented that from a library point of view, MacLean,2005, quoting McManus,(2003) asserted that library directors need to know the profiles of their human resources in order to know whose potential there is and to know the full extent of the resources at hand. It is widely acknowledged that the health of a higher education system depends entirely on its staff, whether academic, professional or administrative. There has, however, been increasing concern amongst higher education staff-especially in Africa-that they have not received the recognition, opportunities for personal development, or the rewards that their contribution merits. This has worked negatively in the morale of these staff, and the results have been a downward trend in the quality of service they offer(Nyaigotti-Chacha,2001), a fact that has wider negative impacts on education outcomes as argued in this paper. It was also argued earlier in this paper that in as far as Uganda's context is concerned, the NCHE, (2006) in its status report on higher education observed that the biggest amount of financial resources in higher educational institutions is spent on staff emoluments but with staff development at 0% and research being allocated a mere 7%.

To further support the principle of strategic engagement of human resources in Uganda's higher educational institutions, the views of Michael,(2004) are supportive. He has asserted

that higher educational institutions are labor intensive organizations and even with the best technology, human minds require interactions amongst themselves to learn appropriately. Given the number of people who work together in a higher education institution, human beings are the best resources that any institution can have. The principle of strategic engagement of human resources considers employees and faculty members as the most important assets the institution has and goes a step further to provide opportunity for personal and professional development and contributes towards their self-fulfillment. Strategic hiring is done to attract the best minds, human minds are carefully aligned with job assignments, and program is put in place to retain these individuals and to reward them adequately (p.135). Realizing the importance of talents, the author argues that institutions should be willing to pay higher prices to attract the best from any part of the globe for the dividends to be derived from investment in human talents surpass the investment costs. Surprisingly, there is hardly any empirical evidence in Uganda's higher education system that these principles are adhered to. Thirdly, accountability for financial resources is a key principle of resource management that higher educational institutions should adopt. University resources especially the financial ones should be spent on the services that promote effective learning among students. Resource management goes with sound systems of accountability and according to NCHE, (2005), 'the other side of institutional autonomy is accountability to all stakeholders including owners, students, parents, staff, benefactors and the public at large. Fourthly, the way procurement and disposal of material resources is a critical principle of effectively managing higher education resources. Like other organizations, higher educational institutions acquire goods/supplies, services and works for them to perform a variety of functions. This procurement traditionally has entailed the acquisition of the right goods or services, from the right source, at the right time, in the right quantities and at the right principles. But in modern times, there is an increasing emphasis for using procurement as a tool for competitive advantage of organizations, higher educational institutions inclusive. The huge sums of money spent on procurement of all materials in higher education-furniture, computers and all other materials on one hand, and the disposal on the other has to be done effectively to achieve value for money.

Contribution of the study

This study, supported by the prevailing local and international literature has confirmed that higher educational institutions in Uganda should manage their resources in consideration of the prevailing environment in which they operate. All higher educational institutions the world over operate in an environment in which they should do 'more with less'. Increasingly, value for money and attainment of quality educational outcomes are twin expectations of higher educational institutions. This paper has argued that attainment of quality and educational outcomes is a function of interplay between resources management and the management systems in higher educational institutions. Effective management of resources has been argued to contribute to the creation of effectively managed higher educational institutions which translates into attainment of quality education. Overall, the contribution of this paper has been to empirically provide results that confirm that resource management has a statistically significant effect on management of higher education in Uganda. Specifically,

- i) This study has validated that there are at least four core management functions critical in the management of a higher education system in a developing country perspective which can contribute; if well undertaken, to attainment of quality education and higher education outcomes. These functions are planning, staffing, leading and controlling.

- ii) The study has confirmed that effective management of the various resources in higher education significantly impacts on the planning, staffing, and controlling functions of higher education.
- iii) The study has identified four principles of resources management that higher educational institutions in Uganda, and other developing countries, should embrace if there are to have a well managed system and attain quality and expected educational outcomes.

Implications for improving quality and value for money in higher education

The study has provided an empirical examination of the relationship between resource management and management of higher education systems in Uganda. The emerging results on the relationship ships between resources management and each of the four management functions generates first; a foundation of empirical results upon which policy and managerial implications for attainment of quality and educational outcomes can be constructed and secondly, the examined relationships raises further questions that should be addressed by future research. The implications of the study are important for both policy and practice. Given the continuous evolving environment in which higher educational institutions operate, information upon which critical decision making should be anchored is essential. This study has provided useful information for all higher educational managers on the critical resources they need to manage and how they should manage them in order to attain quality educational outcomes. Resource management in higher educational institutions needs to be viewed by all managers of higher education as a strategic aspect that if managed well can enhance quality. As higher educational institution continue to change owing to the changing environment in which they operate, efficiency and effectiveness in managing the various resources becomes essential. This calls for a deliberate effort to link the processes of resource management to the functions of planning, leading, staffing and controlling, implying that adequate resources should be allocated and used on managerial areas with the greatest contribution to educational outcomes. The increasing demands of accountability in higher education resulting from declining funding and increasing proliferation of a variety of stakeholders have among others placed higher educational managers on the spotlight for being champions of the ‘value for money’ proclamations. The emerging results equally imply that the higher education managers need to sometimes take the initiative in assessing how effectively and efficiently the resources –material, financial, human etc-they control are utilized. This is because, it is first, the performance of these managers is ideally to be measured on their capacity to ‘manage the resources’ and secondly, they have the key for the vision of their institutions. In the changing environment of higher education in developing countries, the critical mandate for higher educational institutions can only be realized if there is quality education meeting the expectations of society and other stakeholders. Resource management contributing to effective management systems is a possible answer to this goal. The findings of this empirical research and the emerging implications need to be viewed in light of the context in which the study was conducted as well as on the basis of the limitations highlighted in the study. A wealth of data on critical independent and dependent variables was collected from a relatively large sample, analyzed through recommended statistically analyses, interpreted and discussed in light of the exiting local and international literature and managerial and practical implications derived. However, this study recommends areas for further research. It is recommended that future studies explore some other mediating variables that may affect the relationship between resources management and management of higher educational institutions. For example, how does the leadership or management style adopted by higher educational managers affects this relationship and eventual quality educational outcomes?. Is there a role played by declining government funding to attainment of educational outcomes? Is there a fundamental difference on resource management practices in public and private

higher educational institutions that have implications for effective management of higher educational systems and attainment of educational outcomes?

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