

# **FACTORS AFFECTING FINANCIAL PERFORMANCE OF INCOME GENERATING UNITS AMONG UNIVERSITIES IN PUNTLAND STATE OF SOMALIA: THE CASE PUNTLAND STATE UNIVERSITY (PSU)**

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## **Abstract**

*Low funding has been one of the major problems facing higher Education institutions. The government is finding it more difficult to meet the vast needs of the society hence institutions are facing shortages intensively. In an attempt to bridge the gap between the budgetary allocations and actual expenditures most universities have started income generating units with the aim of boosting their operational expenses. This study sought to determine the factors that contribute to the performance of income generating units in universities in the Puntland State of Somalia using Puntland State University (PSU) as a case study. The study has four objectives being to determine the influence of firstly, resource allocation; secondly, internal control systems; thirdly, management capacity and finally work culture on the performance of these income generating units. The study is focused on nine income generating units that are operated by PSU. Both primary data on internal control systems, management capacity and work culture as well as secondary data on financial performance and resource allocation are used in the study. The study was based on the 2015 and 2016 financial statements of the income generating units of the case study. Data analysis was done using SPSS. The findings indicate that resource allocation, internal control systems and management capacity have a positive effect on financial*

*performance. The study however fails to reject the null hypothesis for work culture and finds that it has no significant effect on financial performance of income generating units of Universities in the Puntland State of Somalia. The study is limited by the case study approach to the research and recommends that a further study cutting across all universities in all the States of Somalia be carried out to provide further evidence of how resource allocation, internal controls, management capacity and work culture affects financial performance of income generating units of Universities in Somalia.*

*Keywords: Allocation of resources, internal controls, management capacity, work culture*

## **INTRODUCTION**

The global universities struggling to sustain their financial to remain competitive, the costs of higher education and research are high and the funding is low (Aastern, 2013). In Somalia financial sustainability is the biggest threat facing the higher education to deliver the teaching and research services. In this research focus is on the financial performance of income generating units among Universities in the Puntland State of Somalia using Puntland State University (PSU) in Garowe as a representative case.

Income generating units comprise of units that are a means for gaining or increasing income. They have been sort as a means of livelihood not just in organizations but even so in community development areas. According to Bruce (1998), income Generating Activities serve as a cushion/support kitty for funds received such as Constituency. Development Funds where there are restrictions that control the utilization of these funds, for instance it is stipulated that Constituency Development Funds' money should be Utilized only on purchasing component materials of the project and cannot be used to pay off debts of any kind, transport or labor charges (Bruce, 1998).

Most African higher public education institutions rely greatly on the state for funding as well as for policy-making as far as the public sector are concerned. However, most states do not apportion a sufficient amount of their financial resources to the education sector. From the little provision that is made for education, the greater portion is assigned to basic and Secondary education (Bloom, 2005).

Odebiyi & Aina (1999) indicate that the inadequate funding of the Universities and other tertiary institutions has had calamitous effect on teaching and research and universities. Themselves have been forced to embark on income generating projects in order to source for funds. Therefore, the available revenue is spent on capital projects, administration, teaching and

research and students welfare (Odebiyi&Aina, 1999). Capital projects and salaries reportedly take a bulk of the total revenue while teaching and students' welfare tend to be given less priority (Odebiyi&Aina, 1999).

In Kenya, Kiamba (2003) indicates that over the past ten years, public corporations have continuously received less financial allocation by the Government than the estimated expenditure as forecasted by the Institution. According to Kiamba (2003), the government made it clear that it will no longer be able to fully finance public universities.

Kiamba (2003) asserts that the Kenyan Government has set a policy to limit direct participation in many sectors and instead promote private sector activity. This is expected to limit public funding and therefore necessitate the need for income generating units (IGUs). As a result most public universities had to explore other means of generating income to finance the university programmes. The income generating activities, currently being undertaken by universities in Africa, can be generally classified in two groups, namely; teaching(parallel degree) programs and non-teaching income generating activities.

According to Kiamba (2003), the several major categories of Income Generating Units have been recognized based on the value of respective input by the participants (members of staff) and the Universities. Firstly are the pure consultancies (PC): In this category the investment is greater on the part of the participants than it is on the part of the University due to the high intellectual input from the participants. Secondly are the Specialist-Based Production Units (SBPU) This category includes production units whose survival requires specialized or technical human resources at the teaching departments. It is assumed that the initial and any subsequent physical and material investments have to be provided by the Universities (Kiamba, 2003). Thirdly are the General Production Units (GPU): This category includes income generating activities which are artisan-based without heavy dependence on specialized human resources of a professional nature. Ideally the cost of employment is met as part of production cost. Fourthly, which has been very popular in Kenya is the Module II Programmes (MIIP): These programmes, also referred to as "Parallel Programmes", refer to the academic programmes in which the registered students are privately sponsored and therefore paying full tuition fees as distinct from the "Regular" or "Module I" Programmes in which students are sponsored by the Government under a some cost-sharing arrangement in where about 80% of the tuition fees is paid by the Government (Kiamba, 2003). It was clear early in the initiation of the programmes that there was need to consider this as a special category in the distribution formula largely because the Service Providers (those members of staff directly teaching the academic programmes) involved spread across the entire Universities. Lastly are Seminars, Workshops and Short Courses (SWSC): This category includes Workshops and Seminars

conducted by the various units and/or individuals in which the corporate name of the University is used. Also included in this category are short certificate courses whose duration does not exceed three months (Kiamba, 2003).

Puntland State University is one of the Puntland National Universities recently elevated to status of Puntland University. For several years PSU has been offering Formal education to students pursuing professional courses in the various fields Social Science, Applied Sciences and Business studies culminating in the recent elevation to University status giving it the opportunity to offer Degree programs (PSU, 2017).

### **Statement of the problem**

Universities in developed countries have shown that significant funds can be generated through income generating units. This has been possible through the use of university Facilities and expertise to generate more funds. Whereas the potentials for income Generation through innovation and inventions are there for most universities in African Countries, these have not been adequately utilized and full realization of these potentials. This may be attributed to several bottlenecks (Ogada, 2000). The management of Income generating units has been difficult due to various factors hence affecting its performance.

Puntland State University has nine income units and they are the library (LIBR), the media centre (MEDC), the legal clinic (LCLN), the pharmaceutical clinic (PCLN), the Cafeteria (CAFÉ), the Association of Chartered Certified Accountants Centre (ACCA), the Centre for the Chartered Institute of Public Finance and Accountancy (CPFA), the Production and printing unit (PPPU) the Conference Hall (CONH). These nine main units alongside the regular academic programs have been a source of income to the university to operate all its activities such as teaching and research costs.

However the units have been facing challenges which have affected its growth and development. Allocation of resources has been a great battle within the institution. The problem is that the revenue received from these income units are not matched with the expenses incurred to generate these revenues. If the university does not develop or increase the performance of its income units which cover all its costs, then the university will no longer operate anymore and will not reach its targeted goals (PSU, 2017).

Whereas universities in Puntland state of Somalia operate several income generating units, it is not clear which factors and how they affect the success of such units in enhancing the performance of such Universities in Somalia.

## Research Objectives

The general objective of this research is to investigate the factors that affect the financial performance of income generating units among universities in Puntland State of Somalia:

The specific objectives include:

1. To investigate the effect of allocation of resources on performance of income generating units of Universities in Puntland State of Somalia
2. To establish the effect of internal control systems on the financial performance of income generating units of Universities in Puntland State of Somalia
3. To investigate the effect of management capacity on the financial performance of income generating units of Universities in Puntland State of Somalia
4. To investigate the effect of work culture of income generating units on financial performance of income generating units of Universities in Puntland State of Somalia

## THEORETICAL FRAMEWORK

This section presents the various theories that help explain the factors that affect the financial performance of income generating units among Universities and similar kinds of institutions.

### Stewardship Theory

While profit drives any business, some companies may consider themselves part of something bigger. Stewardship theory holds that ownership doesn't really own a company; it's merely holding it in trust. This shows itself in the way it does business. The operation may be a vehicle for a higher calling or designed to honor a founder's initial vision, so making a profit often takes a back seat to meeting a company's social standards.

### Agency theory

The principal-agent problem (also known as agency dilemma or theory of agency) occurs when one person or entity (the "agent") is able to make decisions on behalf of, or that impact, another person or entity: the "principal". The dilemma exists because sometimes the agent is motivated to act in his own best interests rather than those of the principal. The agent-principal relationship is a useful analytic tool in political science and economics, but may also apply to other areas.

Common examples of this relationship include corporate management (agent) and shareholders (principal), or politicians (agent) and voters (principal). For another example, consider a dental patient (the principal) wondering whether his dentist (the agent) is recommending expensive treatment because it is truly necessary for the patient's dental health, or because it will generate income for the dentist. In fact the problem potentially arises in almost

any context where one party is being paid by another to do something, whether in formal employment or a negotiated deal such as paying for household jobs or car repairs.

The problem arises where the two parties have different interests and asymmetric information (the agent having more information), such that the principal cannot directly ensure that the agent is always acting in its (the principal's) best interests, particularly when activities that are useful to the principal are costly to the agent, and where elements of what the agent does are costly for the principal to observe. Moral hazard and conflict of interest may arise. Indeed, the principal may be sufficiently concerned at the possibility of being exploited by the agent that he chooses not to enter into a transaction at all, when that deal would have actually been in both parties' best interests: a suboptimal outcome that lowers welfare overall. The deviation from the principal's interest by the agent is called "agency costs".

Various mechanisms may be used to align the interests of the agent with those of the principal. In employment, employers (principal) may use piece rates/commissions, profit sharing, efficiency wages, performance measurement (including financial statements), the agent posting a bond, or the threat of termination of employment.

### **Stakeholder's theory**

The stakeholder theory is a theory of organizational management and business ethics that addresses morals and values in managing an organization. It was originally detailed by R. Edward Freeman in the book *Strategic Management: A Stakeholder Approach* identifies and models the groups which are stakeholders of a corporation, and both describes and recommends methods by which management can give due regard to the interests of those groups. In short, it attempts to address the "principle of who or what really counts".

In the traditional view of a company, the shareholder view, only the owners or shareholders of the company are important, and the company has a binding fiduciary duty to put their needs first, to increase value for them. Stakeholder theory instead argues that there are other parties involved, including employees, customers, suppliers, financiers, communities, governmental bodies, political groups, trade associations, and trade unions. Even competitors are sometimes counted as stakeholders – their status being derived from their capacity to affect the firm and its stakeholders. The nature of what is a stakeholder is highly contested (Miles, 2012), with hundreds of definitions existing in the academic literature (Miles, 2011).

The stakeholder view of strategy integrates both a resource-based view and a market-based view, and adds a socio-political level. One common version of stakeholder theory seeks to define the specific stakeholders of a company (the normative theory of stakeholder

identification) and then examine the conditions under which managers treat these parties as stakeholders.

### **Financing Universities in Other African Countries**

Despite their role in teaching, undertaking research and training of skilled manpower for economic development, public universities in developing nations especially those in Africa are facing financing crises. Over the past decade or so, these institutions have continued to receive less financial allocations from their governments than their estimated expenditure. Given the prevailing unfavorable economic conditions in developing countries, governments are unable to adequately finance the provision of public services including education. This means that trend of underfunding public education sector especially the university sub-sector is expected to persist in the foreseeable future. Pressed by the severity of inadequate government funding, Africa's public universities have been making efforts to diversify their sources of revenue. These institutions are reportedly carrying out a number of revenue diversification initiatives to supplement government funds. The significance of these initiatives in the financing of public universities in Africa, however, has not been well documented. The potential of these self-financing initiatives in overall financing of these institutions, therefore, remains a matter of speculation.

By conducting an analysis of all sources of revenue for public universities, an attempt has been made to assess their relative contribution towards overall financing of public universities in Africa. In addition to identifying problems affecting revenue diversification initiatives and suggesting some remedial measures,

This is the main reason that the human capital theory, initially developed by T. Schultz in the late 1950's (Schultz, 1959) and further developed by Becker (1964), and the theory of public expenditures articulated by Musgrave and Musgrave (1989) were helpful in informing this study.

The proportion of revenue from nongovernmental sources increased during the sample period for all the universities due to their revenue diversification initiatives. Contributing between 10 percent and 40 percent of the recurrent expenditure budgets, revenue diversification initiatives that include tuition fees and revenue income generating activities have increased the amount of disposable incomes of African public universities thus enabling them to meet part of the rising budgetary deficits in these institutions.

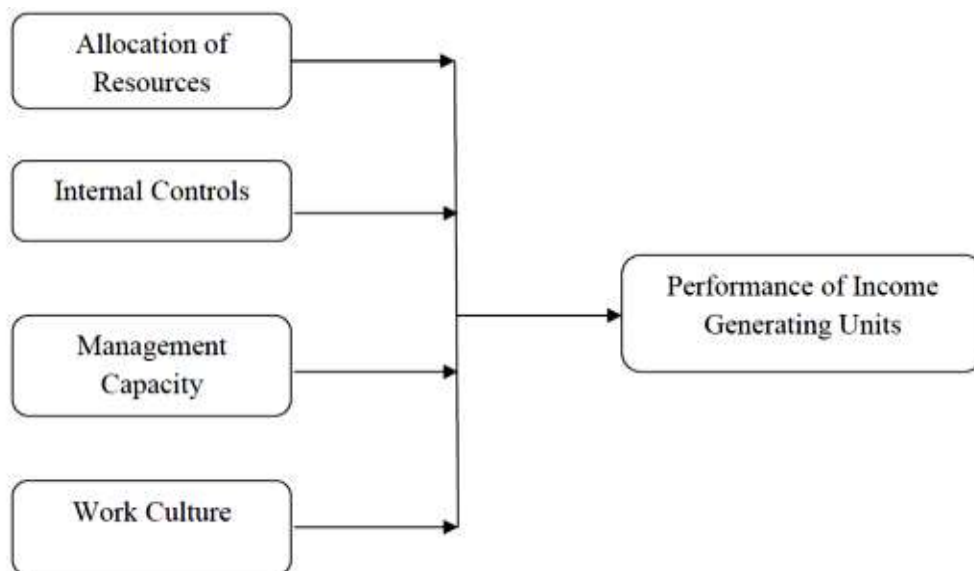
It was found that about 50 percent of the total nongovernmental revenues for African public universities accrue from academic related income generating initiatives. External sources of revenue for these institutions, which include donor grants and university linkage programmes, account for over 90 percent of the development expenditure budgets and form a substantial



proportion of funds for research activities in African public universities. Main Constraints Facing Revenue Diversification Initiatives It was noted that most of the problems affecting revenue-generating initiatives are attributed to the existing management structure of public universities, which are managed as government parastatals. The specific constraints affecting revenue diversification initiatives in these institutions include inadequate operational capital, using unskilled management, lack of internal autonomy due to centralized management systems, shortage of skilled manpower in areas such as information technology, lack of direct access to the revenue generated and low staff morale.

## CONCEPTUAL FRAMEWORK

Figure 1. Conceptual framework



The above diagram illustrates the conceptual framework of the study. This conceptual framework has been adopted from previous work of Blumerg 1982, with some modification to suit the case of income generating units at the Puntland State University. In the course of study the researcher seeks to investigate the relationship between the stated independent variables and the dependent variable.

### Performance of Income Generating Units

In times of financial crisis and tight public budgets the pressure on universities and research institutions to find new funding sources is rising. Public funding for universities and research institutions is decreasing. At the same time, competition between Universities is increasing and



they become more commercially orientated. Every institution needs to define its own strategy for altering its income sources apart from public funding. Several options such as cooperating with industry or funding are available. Commercialization of research can also be a major factor in this regard. Higher education and research institutions are required to prove that their research has an impact outside their institution and that it is of interest for industry. Both the institutions research status and reputation is more and more dependent on research commercialization.

Therefore, it is ever more important to ensure its success in order to attract students, researchers, private companies and external partners – who in turn contribute to the institution's overall income generation themselves again. Furthermore, universities, faculties and institutes act in their own interest when increasing knowledge and technology income as they assure a high quality of their research and raise their own budgets.

However, the diversification of income streams is a very complex process. It involves various different units that need to collaborate. This affects also staff that is not used to deal with private funding and business co-operations including researchers. They are required to turn to business and launch spin-out companies while still having to fulfill their core tasks and ensuring quality of teaching and research. In addition, the institutions' funding models have become more risky as the budget cannot be foreseen and planned for many years anymore.

### **Allocation of Resources**

According to the economic glossary, Allocation of resources is the process of dividing up and distributing available, limited resources to competing, alternative uses that satisfy unlimited wants and needs. Choices have to be made. These choices, these decisions are the resource allocation process. Ogada (2000) states that, following the launching of the Economic Reforms of 1996 - 1998: Policy Framework Paper, the Puntland Government's position on financing of Education is that the public expenditure is to concentrate on primary and secondary education.

This implies that the funds available for university education has been reduced and Puntland universities have been urged to put in place strategies which can enable them generate income using internal resources to finance the shortfalls. All public universities have been facing this crisis of resource allocation due to limited funds provided by the government such that allocating these little resources becomes a challenge. The management of the university has to make difficult choices on which project is to be allocated what amount and hence interfering with the growth of the income generating units.

Financial regulations governing the operation of most public corporations are cumbersome, each financial transactions requires several stages. Particularly the processing of payment and purchase are so tedious that they cannot stimulate the business activities of the

units and some units have lost customers for not delivering services in time. This has occurred due to poor allocation of funds such that most of the vote heads are exhausted before the financial year is half way thus all financial transactions needing approval for processing. Getange et al., (2005) lack of sufficient funding is a major challenge especially considering the fact that some of the public corporations initiate new units and expand existing ones. Therefore they depended on funds from other vote heads. This dependency has had a great influence on the performance of the income generating units.

The European University Association et al. (2008) explains that inadequate funding modalities may have a negative effect and create powerful disincentives for universities to seek additional funding sources. An excessive administrative burden and uncertainty associated with these sources – whether public or private – is one hurdle, which is especially relevant in the context of competitive funding schemes. The Association suggests the simplification of administrative processes and requirements associated with funding programmes. Simplification of rules will ensure that both financial and human resources are released for the primary objectives of excellent teaching and research. This should be underpinned by proportionate accountability measures as well as consistent rules and terminology across programmes.

Many governments have tried to square the circle through tighter management, but management cannot make up for lack of resources. Ajayi et al., (1996) "...funds available to run higher education institutions in Africa are grossly inadequate, making them subsist on a 'starvation diet'." They insist that the contraction of resources to the universities, coupled with an increase in demand, constitutes the most critical problem and greatest challenge of Africa's higher education. Indeed, the unavailability of enough financial resources has led to the inability to sustain growth of enrolment and improve quality Nigel Thrift, Vice-Chancellor of the University of Warwick, stressed that income generation and diversification helps the academic enterprise, rather than hindering it.

Knowledge transfer, commercial operations, public-private partnerships and philanthropic giving are four main areas of diversified income for his institution. It also helps the university to reduce dependency towards public authorities in relation to its internal management. He outlined three key success factors to income diversification – a flat management structure, an entrepreneurial attitude and an outward looking mindset.

### **Internal Controls**

Internal control is a process designed to provide reasonable assurance regarding the Achievement of objectives in the following categories:

I. Effectiveness and efficiency of operations

## II. Reliability of financial reporting

### III. Compliance with applicable laws and regulations

According to Whittington (2004), one of the important reasons of financial fraud is the failure of internal control and the lack of related information disclosure. Effective internal control system can ensure the truthfulness and reliability of financial information. Information disclosure can contribute to the constant improvement of internal control, offering data for decision making to information users. The establishment and effective implementation of internal control system can assure the corporate continuing operating and developing healthily. The quality of internal control disclosure reflects the situation of the system, which is vital to regulators and investors.

Ogada(2000) states that although business units have been established in various departments, IGUs have been operating without clear and comprehensive guidelines being in place, to govern the day to day operations of the units.

From the reference guide for managing University Business Practices, University employees use a variety of information systems: mainframe computers, local area and wide area networks of minicomputers and personal computers, single-user workstations and personal computers, telephone systems, video conference systems, etc. The need for internal control over these systems depends on the criticality and confidentiality of the information and the complexity of the applications that reside on the systems. There are basically two categories of controls over information systems. These are the general controls which apply to entire information systems and to all the applications that reside on the systems as well as the application controls.

Application controls apply to computer application systems and include input controls(e.g., edit checks), processing controls (e.g., record counts), and output controls (e.g. error listings), they are specific to individual applications.

Statement on Auditing Standards issued by the American Institute of Certified Public Accountants (AICPA) stipulates that the purpose of internal control in reliability of financial reporting is generating monthly financial statements that are accurate and complete. Effective and efficient operations ensure that the University can continuously progress toward its mission with limited setbacks. Compliance with applicable laws and regulations will help the University avoid fines, penalties, unrecorded liabilities, and reputational damage.

## **Management Capacity**

Managerial capacity refers to the specialized financial and managerial expertise to finance, develop, manage and operate infrastructure assets (Sommerfield, 1995).Results-based management is currently being instilled into the Public Service through performance contracts.

A performance contract is an agreement between two parties that clearly specifies their mutual performance obligations, intentions and responsibilities. Simply stated, a performance contract comprises the two major components of determination of mutually agreed performance targets and review and evaluation of periodical and terminal performance. The two components also constitute the hub of an implementable strategic plan.

According to the UNES Strategic Plan (2005-2010), it was formulated in such a way that it reflects the key elements of results-(performance-) based management, namely the mission, objectives, performance criteria and indicators, and targets. This has greatly influenced the performance of their IGU's. With a result based management the management capacity and abilities are maintained at high standard hence promoting good governance and performance of the IGU's.

One major prerequisite to be met is necessary skills and expertise that is needed in the institution in the shape of professional leadership and management. Income diversification needs skilled management at all levels of the institution and may require new staff profiles, such as professional research administrators and fundraisers. These need to be included in the design of the university's strategy and must operate within adapted structures. Leadership may also need to take on new tasks, especially in relation to fundraising. It is clear that to engage philanthropists with the university, the leadership must be committed to these activities. Therefore it is crucial that training and support programmes are provided for the different levels of leadership in the university(European University Association conference, 2008).

### **Work Culture**

Culture in an organization evolves out of collective perceptions of employees on various aspects of the organizational work life. It is shaped through their day-to-day experiences while dealing with various facets of the organizational realities such as its goals and objectives, policies and practices, leadership, structure, work design, technology adopted, people, dominant modes of communication, motivational and reward mechanisms, working conditions, etc. It provides dynamic interface to the employees in the organization in the form psychologically meaningful and behaviorally pertinent perceptions, which impels them to think, feel and act in consistently similar ways(Schneider, 1975). Numerous studies have shown organizational culture as undisputedly a major contributing factor for changing employees' attitudes and behavior towards superior job performance and satisfaction. Several measured aspects of culture such as communication flow, decision-making practices, relationship with colleagues, workdesign and supervisory support have shown significant positive relationship with many outcome variables like organizations' financial performance (Dennison, 1990; Ryan,Schmit& Johnson, 1996;

Kangis&Williams, 2000) employees', productivity and satisfaction (Schneider et al., 1998; Rogg, et al., 2001).

University staffs, just like most other civil servants have civil service work culture of low productivity, insensitivity to deadlines and quality of service, etc. This culture is not conducive for efficient and profitable to business operations. During a workshop with managers from industries, pointed out that the civil service culture and bureaucracy are the two major impediments to doing business with universities (Ogada, 2000).

For Pettigrew (1979), organizational culture consists of "a system of public and collective meanings accepted by a given group over a certain period of time. This system of terms, forms, categories and images interpret for people their own situations". However, for Schein (1992), organizational culture is to be understood as "the pattern of shared basic assumptions that a given group has invented, discovered, or developed in learning to cope with its problems of external adaptation and internal integration -- a pattern of assumptions that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think and feel in relation to those problems". According to Trice and Beyer (1993), culture involves conceptions, norms and values that are inculcated during the life of an organization.

Nevertheless, according to Riley (1983), although theoretical conceptions on organizational culture are polarized with regard to the two perspectives mentioned above, empirical studies in this area have opted for the integration of both conceptions..Consequently, Alvesson (1993), though acknowledging Smircich's reference (1983) as being crucial to regulate the study area in organizational culture, comments that it has not exhausted the various analyses made possible by a particular theory.

Public corporations emphasis is on valuing a centralized and authoritarian system of authority that makes it difficult to increase professional development and to acknowledge the human element (rigid hierarchical power structure). In as much as the public companies emphasize individual competence and efficiency as a way to achieve the highly desired personal objectives, they implicitly stimulate the necessity of "passing over" colleagues who have longed for similar objectives (competitive professionalism).Such values manifest themselves through practices that aim at the implementation of interpersonal communication strategies and decision-making tactics that enhance the afore mentioned power structure. In other words, the culture of the public companies that have taken part in this research can be fundamentally defined by valuing authority and competition, detrimental to the human element and to interpersonal relations, as a means of climbing the hierarchy (Heleena, 2000). This in turn has led to a conflict of interest and decline in performance of income generating units in

public corporations. There is no vigilance on the part of the employee therefore low productivity in the market is experienced.

### **Critique of the Existing Literature Relevant to the Study**

There are many studies relating to the Income Generating Units in corporations, but very few have looked in to the area of the issues surrounding the IGU's performance specifically in public corporations. However, the myriad of articles, journals, web Publications, and books on Income generating units formed the foundation for my research. This study helped theoretically and empirically in providing answers to the research problems and therefore getting meaningful conclusions.

## **RESEARCH METHODOLOGY**

### **Research Design**

The study took a descriptive case study approach as it explained the factors influencing operations of income generating units in public universities. Descriptive research was used to obtain information concerning the current status of the phenomena to describe "what exists" with respect to variables or conditions in a situation (Key,1997). The study also used quantitative design since the researcher aimed at determining the relationship between the independent variables and the dependent variable. The case study approach is very useful because it affords adequate attention of the research to the various details outlining the factors affecting the dependent variable in this case the performance of the income generating units (Mugenda and Mugenda, 2003).

### **Population**

The study is designed as a case study. Accordingly, the target population comprised the various income generating units at Puntland State University. The sampling units are derived from each of these income generating units as well as from the rest of managerial staff and members of staff who benefit from the income generating units. The income generating units at the PSU include both the teaching departments where private students are taken as part of income generating targets as well as non-teaching departments where other income generating activities take place. At PSU, the established nine income generating units include the library (LIBR), the media centre (MEDC), the legal clinic (LCLN), the pharmaceutical clinic (PCLN), the Cafeteria (CAFÉ), the Association of Chartered Certified Accountants Centre (ACCA), the Centre for the Chartered Institute of Public Finance and Accountancy (CPFA), the Production

and printing unit (PPPU) the Conference Hall (CONH).The units and targeted respondents forming the population are presented in Table 1.

Table 1. Target Population

| <b>CATEGORY</b>      | <b>POPULATION</b> | <b>% OF TARGET POPULATION</b> |
|----------------------|-------------------|-------------------------------|
| <b>Board Members</b> | 15                | 37.50                         |
| <b>Unit Managers</b> | 12                | 30.00                         |
| <b>Other Staff</b>   | 13                | 32.50                         |
| <b>TOTAL</b>         | <b>40</b>         | <b>100%</b>                   |

### Sampling Frame

According to Bennet (1993), as sampling frame is the set of source materials from which the sample is selected. For the purpose of this study this will include the management team for each of the income generating units at the Puntland State University.

### Sample Size and Sampling Technique

Ross (2005) argues that sampling is generally conducted in order to permit the detailed study of part, rather than the whole of a population. Purposive sampling technique was used to interview the management team of the income generating units. All the team leaders or managers in the nine income generating units plus the top management and other staff that interact with the units are included in the sample.

Table 2. Target Sample Size

| <b>CATEGORY</b>    | <b>POPULATION</b> | <b>% OF TARGET SAMPLE</b> |
|--------------------|-------------------|---------------------------|
| <b>LIBR</b>        | 1                 | 3.70                      |
| <b>MEDC</b>        | 1                 | 3.70                      |
| <b>LCLN</b>        | 1                 | 3.70                      |
| <b>PCLN</b>        | 1                 | 3.70                      |
| <b>CAFÉ</b>        | 1                 | 3.70                      |
| <b>ACCA</b>        | 1                 | 3.70                      |
| <b>CPFA</b>        | 1                 | 3.70                      |
| <b>PPPU</b>        | 1                 | 3.70                      |
| <b>CONH</b>        | 1                 | 3.70                      |
| <b>BOARD</b>       | 6                 | 22.22                     |
| <b>OTHER STAFF</b> | 12                | 44.44                     |
| <b>TOTAL</b>       | <b>27</b>         | <b>100%</b>               |



## Research Instruments

The study employed the use of structured questionnaire as the main instrument for carrying out the survey as well as interviews to the key respondents since they were in a position to give further clarification to any detailed information needed. For secondary data used in assessing the financial performance of income generating units, a secondary data collection sheet was used.

## Data Collection

The study used both primary and secondary data. Primary data was collected directly from the University employees. Secondary data included information from financial statements obtained from the university covering two financial years 2015 and 2016. The researcher dropped the questionnaires physically at the respondents' place of work and were picked up later upon which the interview guide was used to supplement the collected information from the questionnaire. Each questionnaire was coded and only the researcher knew which person responded.

## Data Processing and Analytical Approach

Quantitative data collected was analyzed with the Statistical Package for Social Sciences (SPSS) using regression analysis to analyze the relationship between the independent and dependent variables. The regression model of analysis is specified as:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e$$

Where:

Y is financial performance as shown by the ratio of revenue to assets

X1 is the measure of allocation of resources as measured by the ratio of the allocated budget to the income generating unit to the total budget allocated to income generating units. This is in addition to the likert scale information with a scale from 1 (Very inadequate resource allocation) to 5 (very adequate resource allocation)

X2 is the measure of internal control system as computed on the Likert scale from the questionnaires on a scale of 1 (very weak internal control system) to 5 (very strong internal control system).

X3 is management capacity of the income generating units as computed on the Likert scale from the questionnaires on a scale of 1 (poor capacity) to 5 (strong capacity)

X4 is the measure of work culture of income generating units as computed on the Likert scale from the questionnaires on a scale of 1 (very unsupportive culture) to 5 (very supportive culture)

The variables used in the study are the reference points used in order for the researcher to find out if the objectives are achieved from conducting the study. Both descriptive statistics and inferential statistics are used in the analysis of the data. The inferential statistics are based on the t-statistic and the p-value given the sample size is small. Descriptive statistics relate to the mean, standard deviation and coefficient of variation of the statistical data presented for the dependent and the independent variables.

## ANALYSIS AND FINDINGS

### Descriptive Statistics

#### *Resource Allocation*

This section provides the descriptive statistics of the various independent and dependent variables of the study obtained from both the primary data and the secondary data. Firstly, the allocation of resources to the various income generating units for the financial years 2015 and 2016 were identified from the PSU financial budget. The table 3 provides the descriptive statistical findings about these ratios.

Table 3. Budget allocation Ratio Descriptive Statistics

| <i>Descriptive Statistics</i> |         |
|-------------------------------|---------|
| Mean                          | 0.11111 |
| Median                        | 0.11400 |
| Standard Deviation            | 0.02180 |
| Minimum                       | 0.07800 |
| Maximum                       | 0.14300 |
| Count                         | 9       |

An analysis of the findings from table 3 shows that the mean budgetary allocation is 11.11% of the entire university budget for the revenue generating units with a standard deviation Of 2.1% which shows a fair allocation among the income generating units within the university. This could also mean that the capital intensive income generating units like the Faculty of civil engineering are also underfunded with allocation comparable to less intensive units like the Faculty of post graduate studies.

The respondents were also requested to evaluate the effect of allocation of resource on performance of income generating units at Puntland State University; this variable of allocation of resource had six sub different questions, each question had five level of agreement that the

respondents has to choose. This related to the adequacy of staff at PSU income generating units. The findings are shown in Table 4.

Table 4. Resource Allocation Adequacy

| CATEGORY | Staff Adequacy | Resource Priority | Economic Effect | Budget Effect | Reimbursement | Planning & Forecasting |
|----------|----------------|-------------------|-----------------|---------------|---------------|------------------------|
| LIBR     | 3.70           | 2.62              | 3.94            | 3.72          | 2.8           | 3.94                   |
| MEDC     | 4.32           | 3.91              | 2.65            | 3.97          | 3.09          | 2.45                   |
| LCLN     | 2.90           | 2.43              | 2.57            | 3.75          | 4.65          | 3.35                   |
| PCLN     | 2.50           | 3.31              | 2.45            | 4.75          | 3.65          | 3.15                   |
| CAFÉ     | 3.57           | 2.55              | 3.35            | 3.75          | 3.89          | 2.95                   |
| ACCA     | 2.69           | 3.67              | 3.71            | 4.25          | 3.65          | 2.65                   |
| CPFA     | 4.50           | 3.2               | 3.33            | 2.86          | 4.2           | 2.57                   |
| PPPU     | 3.90           | 3.58              | 4.4             | 3.15          | 3.65          | 4.75                   |
| CONH     | 4.00           | 4.35              | 3.62            | 2.95          | 2.9           | 3.75                   |

The researcher had asked the respondents whether PSU has adequate staff to perform its activities. The table 4 shows the level of agreement of the respondents. The table 4 shows the first sub question of allocation of resource which is whether PSU has adequate staff to perform its activities, the respondents are requested their level of agreement towards that question. The average mean response is 3.56 which imply a level of agreement given the scale range from 5 to 1, being agreed. On average 21 out of 27 (78 %) agreed that PSU has adequate staff to perform of its activities, while 15% of the respondents disagree that PSU has adequate staff to perform of its activities.

The second aspect of resource allocation that was derived from the questionnaire was how resources were prioritized to revenue generating units. A scale of 1 to 5 was used. The researcher asked the respondents whether PSU allocate its resources in a proper way to improve the performance of income generating units. The findings are indicated in the third column of Table 4.

The results from table 4 obtained from respondents towards the second sub question of allocation of resource which is whether PSU allocate its resources in a proper way to improve the performance of income generating units. The overall findings indicate that 17 out of 27 (63 %) agreed that PSU allocates all its resources in a proper way, 6 out of 27 (22.2 %) stated neutral, while 4 out of 27 (15%) disagree. The average mean response is 3.29 which imply a

level of agreement given the scale range from 5 to 1, being neutral. The findings from each of the income generating units are shown in the Table 4.

Still with respect to resource allocation, the study sought to check how economic factors affect allocation of resources in PSU income generating units. The findings are shown in the fourth column of Table 4. The results obtained from respondents towards the third sub question of allocation of resource which is whether Economic factors affect allocation of resources in PSU income generating units. The average mean response is 3.34 which imply a level of agreement given the scale range from 5 to 1, being agreed.

The overall results shows 16 out of 27 (59.2 %) agreed that economic factors such as inflation affect allocation of resources, 26 % of the respondents neither agree nor disagree, while 15% of the respondents disagree that the economic factors such as inflation affect allocation of resources.

The study also evaluated the effect of budgeted funds affect the performance of PSU income generating units. The findings are shown in the fifth column of table 4. From table 4 column 5 the results obtained from respondents towards the forth sub variable question of allocation of resource which is whether budgeted funds affect the performance of PSU income generating units. The average mean response is 3.68 which imply a level of agreement given the scale range from 5 to 1, being agreed. The results shows 17 out of 27 (63%) of the respondents agreed that budgeted funds affect the performance of PSU income generating units, while 5 out of 27 (19%) disagree, 19% of the respondents neither agree not agree, being neutral.

In addition, the study also evaluated fund reimbursement efficiency as part of the resource allocation effect on the performance of the income generating units among Universities in Puntland State of Somalia using PSU as a case study. The researched asked the respondents whether funds are disbursed on the right time to match income and expenses. The findings are shown in the sixth column of table 4. From table 4 the results obtained from respondents towards the fifth sub variable question of allocation of resource which is whether funds are disbursed on the right time to match income and expenses. The average mean response is 3.61 which imply a level of agreement given the scale range from 5 to 1, being neutral. The results shows 13 out of 27 (48%) of the respondents agreed that PSU funds are disbursed on the right time, while 40% of the respondents neither agree nor disagree, being neutral, finally 11 % of the respondents disagree that PSU funds are disbursed on the right time. Finally, the study evaluated the effect of planning and forecasting on resource allocation. The researcher asked the respondents whether planning and forecasting of both revenue and expenses affect performance of income generating units. The findings are indicated in the second last column of table 4. From the table 4 the results obtained from respondents towards

the sixth sub variable question of allocation of resource which is whether planning and forecasting of both revenue and expenses affect performance of income generating units. The average mean response is 3.78 which imply a level of agreement given the scale range from 5 to 1, being agreed. The results shows 18 out of 27 (63 %) of the respondents agreed that planning and forecasting of both revenue and expenses affect performance of PSU income generating units. 7 out of 27 (26%) of the respondents are neutral, while 7% of the respondents are disagree. On the overall the descriptive findings on resource allocation are presented in Table 5.

Table 5. Resources Allocation Qualitative Descriptive Statistics

| <i>Resources Allocation Qualitative Descriptive Statistics</i> |        |
|--|--------|
| Mean   | 3.4613 |
| Median   | 3.4367 |
| Standard Deviation   | 0.1916 |
| Range  | 0.63   |
| Minimum  | 3.275  |
| Maximum  | 3.905  |
| Count  | 9      |

The table reflects that on average resource allocation is adequate for all the income generating units of the University.

### ***Internal Controls***

The other variable whose effect on performance of income generating units that was evaluated is internal control systems of universities in the Puntland region of Somalia. The respondents were requested to evaluate the effect of Internal control on performance of income generating units at Puntland State University; this variable of internal control had five sub different questions, each question had five level of agreement that the respondents has to choose. Several aspects of internal controls were evaluated and the findings are shown in Table 6.

Table 6. Strength of Internal Controls

| <b>CATEGORY</b> | <b>Control Weakness</b> | <b>Record Keeping</b> | <b>Employee Accountability</b> | <b>Reporting Reliability</b> | <b>Procurement Procedures</b> |
|-----------------|-------------------------|-----------------------|--------------------------------|------------------------------|-------------------------------|
| <b>LIBR</b>     | 2.78                    | 3.85                  | 3.90                           | 3.83                         | 2.85                          |
| <b>MEDC</b>     | 2.70                    | 3.36                  | 3.50                           | 4.41                         | 4.75                          |
| <b>LCLN</b>     | 4.90                    | 3.76                  | 4.60                           | 3.83                         | 4.10                          |
| <b>PCLN</b>     | 3.90                    | 4.50                  | 3.80                           | 3.05                         | 4.20                          |

|             |      |      |      |      |      |
|-------------|------|------|------|------|------|
| <b>CAFÉ</b> | 4.20 | 2.75 | 4.10 | 2.95 | 3.85 |
| <b>ACCA</b> | 2.57 | 4.10 | 2.75 | 3.25 | 4.55 |
| <b>CPFA</b> | 3.52 | 2.55 | 2.65 | 4.80 | 3.25 |
| <b>PPPU</b> | 3.35 | 3.40 | 2.57 | 3.83 | 2.65 |
| <b>CONH</b> | 3.10 | 2.70 | 3.55 | 4.10 | 3.75 |

Table 6...

The researcher asked the respondents whether a weak internal control decreases performance of PSU income generating units. The findings are shown in the second column of Table 6. From table 6 the results obtained from respondents towards the first sub variable question of internal controls which is whether a weak internal control decreases performance of PSU income generating units. The average mean response is 3.45 which imply a level of agreement given the scale range from 5 to 1, being neutral. The results shows 12 out of 27 (44%) of the respondents agreed that weak internal control decreases PSU performance, 41% of the respondents disagree and 26% of the respondents are neutral means neither agree nor disagree.

The second aspect of internal controls was whether a financial & non financial records keeping promotes performance of PSU income generating units. The findings are shown in Table 6 column 3. From table 6 the results obtained from respondents towards the second sub variable question of internal controls which is whether a financial & non financial records keeping promotes performance of PSU income generating units. The average mean response is 3.46 which imply a level of agreement given the scale range from 5 to 1, being agreed. The results shows 18 out of 27 (67 %) of the respondents agreed that financial & non financial records keeping promotes performance of PSU income generating units, 26% of the respondents are neutral, while 7% of the respondents disagree.

The third aspect related to employee accountability. The research questions about the level of employee accountability. The findings are shown in the fourth column of table 6. The following table shows the level of agreement of the respondents. From the table the results obtained from respondents towards the third sub variable question of internal controls which is whether employees are accountable, the average mean response is 3.50 which imply a level of agreement given the scale range from 5 to 1, being agreed. The results shows 20 out of 27 (74%) of the respondents agreed that employee's accountability increases performance of PSU income generating units, 14% of the respondents are neutral, while 11% of the respondents disagree.

The study evaluated the reliability of financial reporting which are accurate and complete. The following table shows the level of agreement of the respondents. Table 6 column

5 shows reliability & accuracy findings. From table 6 the results obtained from respondents towards the fourth sub variable question of internal controls which is whether PSU internal controls ensure reliability of financial reporting which are accurate and complete.

The average mean response is 3.79 which imply a level of agreement given the scale range from 5 to 1, being agreed. The results shows 18 out of 27 (67%) of the respondents agreed that PSU internal controls ensure reliability of financial reporting which are accurate and complete, while 33% of the respondents are neutral, there is no disagreement in this question.

Lastly with respect to internal controls, the researched asked the respondents whether PSU procedures of acquisition of materials affect income generating units. The findings are shown in column 6 of table 6.

From table 7, the results obtained from respondents towards the fifth sub variable question of internal controls which is whether PSU procedures of acquisition of materials affect income generating units. The average mean response is 3.74 which imply a level of agreement given the scale range from 5 to 1, being agreed. The results shows 17 out of 27 (70%) of the respondents agreed that PSU procedures of acquisition of materials affect income generating units, 29% of the respondents are neutral, while 4% of the respondents disagree. On an overall basis the table 7 shows the descriptive statistics of internal controls as one of the variables affecting financial performance.

Table 7. Descriptive Statistics Internal Controls

| <i>Descriptive Statistics Internal Controls</i> |        |
|---|--------|
| Mean  | 3.5877 |
| Median  | 3.4482 |
| Standard Deviation                              | 0.3332 |
| Minimum   | 3.1626 |
| Maximum   | 4.2588 |
| Count   | 9      |

The findings indicate that on average internal controls at PSU and similar Universities in Puntland State of Somalia have above average strength with an average of 3.6 out of a possible 5 with represents 72% strength.

### **Management Capacity**

The respondents were also requested to evaluate the effect of management capacity on performance of income generating units at Puntland State University; this variable of



management capacity had four sub different questions, each question had five level of agreement that the respondents has to choose. The findings are shown in Table 8.

Table 8. Management Capacity

| CATEGORY | Experience& Capability | Management Styles | Team Involvement | Manager Experience |
|----------|------------------------|-------------------|------------------|--------------------|
| LIBR     | 2.97                   | 3.94              | 4.37             | 3.44               |
| MEDC     | 3.52                   | 4.14              | 4.35             | 3.74               |
| LCLN     | 4.41                   | 3.80              | 4.11             | 4.16               |
| PCLN     | 3.83                   | 4.14              | 4.25             | 3.67               |
| CAFÉ     | 3.70                   | 2.78              | 4.54             | 3.59               |
| ACCA     | 4.57                   | 2.70              | 3.05             | 3.43               |
| CPFA     | 4.24                   | 3.90              | 4.63             | 3.48               |
| PPPU     | 4.88                   | 3.50              | 3.75             | 3.36               |
| CONH     | 3.05                   | 3.83              | 3.36             | 3.43               |

Firstly, the researcher asked the respondents whether duties and responsibilities of PSU personnel match their experience and capabilities. The findings are shown in column 12 of table 8. From table, the results obtained from respondents towards the first sub variable question of management capacity which is whether duties and responsibilities of PSU personnel match their experience and capabilities. The average mean response is 3.91 which imply a level of agreement given the scale range from 5 to 1, being agreed. The results shows 22 out of 27 (82%) of the respondents agreed that duties and responsibilities of PSU personnel match their experience and capabilities, 11% of the respondents disagree.

The second aspect related to management styles. The researched asked the respondents whether PSU management styles promote performance of income generating units. The findings are shown in the third column of table 8. From table 8, the results obtained from respondents towards the second sub variable question of management capacity which is whether PSU management styles promote performance of income generating units. The average mean response is 3.64 which imply a level of agreement given the scale range from 5 to 1, being agreed. The results shows 16 out of 27 (59%) of the respondents agreed that PSU management styles promote performance of income generating units, 30% of the respondents are neutral and 11% of the respondents disagree.

Thirdly, the researched asked the respondents whether PSU managers involve the rest of the team players in decision making processes. The findings are in the fourth column of table 8. From the table the results obtained from respondents towards the third sub variable question of management capacity which is whether PSU managers involve the rest of the team players in

decision making processes. The average mean response is 4.04 which imply a level of agreement given the scale range from 5 to 1, being agreed. The results shows 21 out of 27 (78%) of the respondents agreed that PSU managers involve the rest of the team players in decision making processes, 15% of the respondents are neutral, while 7% of the respondents disagree.

Lastly with respect to management capacity, the researched asked the respondents whether PSU managers experience influences the decision making in the management of income generating units. The findings are shown in the last column of Table 8. From the table the results obtained from respondents towards the fourth sub variable question of management capacity which is whether PSU managers experience influences the decision making in the management of income generating units. The average mean response is 3.59 which imply a level of agreement given the scale range from 5 to 1, being agreed.

The results shows 19 out of 27 (70%) of the respondents agreed that whether PSU managers experience influences the decision making in the management of income generating units, 18% of the respondents are neutral and 11% of the respondents disagree.

Table 9. Descriptive Statistics on Management Capacity

| <i>Descriptive Statistics on Management Capacity</i> |        |
|--|--------|
| Mean   | 3.7937 |
| Median   | 3.8725 |
| Standard Deviation                                   | 0.2598 |
| Minimum  | 3.4157 |
| Maximum  | 4.1188 |
| Count  | 9      |

The table 9 summarizes the mean, median and standard deviation with respect to the various attributes of management capacity. This implies that with an average of 3.80, the management capacity is very strong and well above average.

### **Work Culture**

The respondents were requested to evaluate the effect of work culture on performance of income generating units at Puntland State University; this variable of work culture had five sub different questions, each question had five level of agreement that the respondents has to choose. The findings are shown in Table 10.

Table 10. Work Culture

| CATEGORY | Personnel Performance | Ethics Code | Response to Clients | Working Attitude | Organisation Support |
|----------|-----------------------|-------------|---------------------|------------------|----------------------|
| LIBR     | 2.95                  | 2.78        | 4.34                | 3.44             | 3.60                 |
| MEDC     | 3.49                  | 4.01        | 4.03                | 4.06             | 3.65                 |
| LCLN     | 3.64                  | 3.60        | 4.64                | 3.87             | 3.53                 |
| PCLN     | 3.46                  | 3.95        | 2.89                | 3.42             | 3.60                 |
| CAFÉ     | 2.82                  | 3.68        | 3.61                | 4.06             | 4.24                 |
| ACCA     | 3.34                  | 3.94        | 3.92                | 4.16             | 4.22                 |
| CPFA     | 4.19                  | 4.12        | 4.37                | 3.72             | 3.98                 |
| PPPU     | 3.64                  | 3.97        | 3.85                | 4.26             | 4.12                 |
| CONH     | 3.51                  | 3.65        | 3.77                | 3.47             | 4.40                 |

Firstly the researched asked the respondents whether performance evaluation of PSU personnel increases performance of income generating units. The findings are shown in the second column of table 10. The results obtained from respondents towards the first sub variable question of work culture which is whether Performance evaluation of PSU personnel increases performance of income generating units. The average mean response is 3.45 which imply a level of agreement given the scale range from 5 to 1, being neutral. The results shows 17 out of 27 (63 %) of the respondents agreed that Performance evaluation of PSU personnel increases performance of income generating units, while 22% are neutral and 11 % of the respondents disagree.

Secondly, the researched asked the respondents whether PSU employees adhere to the code of ethics on service delivery in the university. The findings are shown in table 10 column 3. From the table the results obtained from respondents towards the second sub variable question of work culture which is whether PSU employees adhere to the code of ethics on service delivery in the university. The average mean response is 3.74 which imply a level of agreement given the scale range from 5 to 1, being agreed. The results shows 18 out of 27 (67%) of the respondents agreed that PSU employees adhere to the code of ethics on service delivery in the university, 22% of the respondents being neutral and 11% of the respondents disagree.

The researched asked the respondents whether PSU Staff prompts responses to correspondences needed by clients. The findings are in column 4 of table 10. From the results obtained from respondents towards the third sub variable question of work culture which is whether PSU Staff prompts responses to correspondences needed by clients. The average mean response is 3.94 which imply a level of agreement given the scale range from 5 to 1, being agreed. The results shows 21 out of 27 (78%) of the respondents agreed that PSU Staff

prompts responses to correspondences needed by clients, 15% of the respondents being neutral while 7% of the respondents disagree.

In addition, the researched asked the respondents whether PSU Staff working attitude affect performance of income generating units. The findings are shown in the fifth column of table 10. The results obtained from respondents towards the forth sub variable question of work culture which is whether PSU Staff working attitude affect performance of income generating units. The average mean response is 3.83 which imply a level of agreement given the scale range from 5 to 1, being agreed. The results shows 20 out of 27 (74%) of the respondents agreed that PSU Staff working attitude affect performance of income generating units, 15% of the respondents being neutral while 11% of the respondents disagree.

Lastly, the researched asked the respondents whether PSU Structural form of the organization supports performance of income generating units. The findings are indicated in the last column of table 10. From the results obtained from respondents towards the fifth sub variable question of work culture which is whether PSU Structural form of the organization supports performance of income generating units. The average mean response is 3.93 which imply a level of agreement given the scale range from 5 to 1, being agreed. The results shows 21 out of 27(78%) of the respondents agreed that PSU Structural form of the organization supports performance of income generating units, while 11% of the respondents disagree and 11% being neutral. The aggregated descriptive statistics of the work culture variable are shown in table 11.

Table 11. Work Culture Descriptive Statistics

| <i>Work Culture Descriptive Statistics</i> |        |
|--|--------|
| Mean                                       | 3.7769 |
| Median                                     | 3.8490 |
| Standard Deviation                         | 0.2211 |
| Range                                      | 0.6519 |
| Minimum                                    | 3.4225 |
| Maximum                                    | 4.0745 |
| Count                                      | 9      |

The findings from table 11 indicate that work culture is very strong with a mean score of 3.78 out of a possible 5. It however varies among the various income generating units as shown by the relatively high standard deviation of 0.2211.

## Inferential Statistics

To answer the research questions shown in chapter 1, a regression analysis of performance (FP) was done of the independent variables of resource allocation (RA), internal control system (ICS), management capacity (MC) and work culture (WC). The Findings are shown in table 12.

To answer the research questions set forth, a regression analysis of performance (FP) was done of the independent variables of resource allocation (RA), internal control system (ICS), management capacity (MC) and work culture (WC). The Findings are shown in table 12.

Table 12. Summary Regression Output

| <i>Regression Statistics</i> |                     |                  |               |                |                  |
|------------------------------|---------------------|------------------|---------------|----------------|------------------|
| R Square                     | 0.6384              |                  |               |                |                  |
| Adjusted R Square            | 0.2767              |                  |               |                |                  |
| Standard Error               | 0.0988              |                  |               |                |                  |
| F                            | 1.7652              |                  |               |                |                  |
| <i>Significance F</i>        | 0.2977              |                  |               |                |                  |
|                              | <i>Coefficients</i> | <i>Std Error</i> | <i>t Stat</i> | <i>P-value</i> | <i>Lower 95%</i> |
| Intercept                    | 0.0897              | 0.1657           | 0.5414        | 0.6170         | -0.3705          |
| RA                           | 3.7610              | 1.5263           | 2.4641        | 0.0394         | -0.4767          |
| ICS                          | 0.4484              | 0.1899           | 2.3608        | 0.0376         | -0.9758          |
| MC                           | 0.7193              | 0.2926           | 2.4586        | 0.0434         | -1.5316          |
| WC                           | 0.0862              | 0.1787           | 0.4821        | 0.6549         | -0.4101          |

The regression model is seen to fit the model very well. The findings provide a R-square value of 0.6384 which indicates that 63.84 of the changes in performance of income generating units is determined by changes in the research independent variables that is resource allocation, internal control systems, management capacity and work culture. This is supported by the F-ratio of 1.7652 which is greater than the significant F of 0.2977. Accordingly the study rejects the null hypothesis and concludes that the regression model is suitable for the data analysis and that it correctly fits the data. The resultant model from the findings is specified as:

$$FP = 0.0897 + 3.7610RA + 0.4484ICS + 0.7193MC + 0.0862WC$$

The effect of each of the independent variables on the performance of income generating units is accordingly discussed in the following subsections:

### ***Effect of Resource Allocation on Performance of IGUs***

The first objective sought to find out the effect of resource allocation on the performance of the income generating units in Universities in the Puntland State of Somalia using PSU as a case

study. The findings from the regression model shows that resource allocation has a positive effect on financial performance. This is shown by a statistically significant t-value of 2.4641 for the coefficient of RA shown in table 12 which is greater than the critical value of 2.000. This implies that the study rejects the null hypothesis that resource allocation has no significant effect on financial performance of income generating units. Accordingly, the study concludes that resource allocation has a positive effect on performance of income generating units among Universities in Puntland State of Somalia. This is supported by the P-value of 0.0394 which is less than the significant level of 0.05 at the 95% confidence interval.

### ***Effect of Internal Controls on Performance of IGUs***

The second objective sought to find out the effect of internal control systems on the performance of the income generating units in Universities in the Puntland State of Somalia using PSU as a case study. The findings from the regression model shows that internal control systems have a positive effect on financial performance. This is shown by a statistically significant t-value of 2.3608 for the coefficient of ICS as shown in table 12 which is greater than the critical value of 2.000. This implies that the study rejects the null hypothesis that internal control systems have no significant effect on financial performance of income generating units. Accordingly, the study concludes that internal controls have a positive effect on performance of income generating units among Universities in Puntland State of Somalia. This is supported by the P-value of 0.0376 which is less than the significant level of 0.05 at the 95% confidence interval.

### ***Effect of Management Capacity on Performance of IGUs***

The third objective sought to find out the effect of managerial capacity on the performance of the income generating units in Universities in the Puntland State of Somalia using PSU as a case study. The findings from the regression model shows that managerial capacity systems have a positive effect on financial performance. This is shown by a statistically significant t-value of 2.4586 for the coefficient of managerial capacity as shown in table 12 which is greater than the critical value of 2.000. This implies that the study rejects the null hypothesis that managerial capacity have no significant effect on financial performance of income generating units. Accordingly, the study concludes that management capacity have a positive effect on performance of income generating units among Universities in Puntland State of Somalia. This is supported by the P-value of 0.0434 which is less than the significant level of 0.05 at the 95% confidence interval.

### ***Effect of Work Culture on Performance of IGUs***

The final objective sought to find out the effect of work culture on the performance of the income generating units in Universities in the Puntland State of Somalia using PSU as a case study. The findings from the regression model shows that work culture systems have a positive effect on financial performance although both the t-value and p-value show an effect that is not statistically significant. This is shown by a statistically insignificant t-value of 0.4821 for the coefficient of work culture as shown in table 12 which is less than the critical value of 2.000. This implies that the study fails to reject the null hypothesis that work culture has no significant effect on financial performance of income generating units. Accordingly, the study concludes that work culture has no effect on performance of income generating units among Universities in Puntland State of Somalia. This is supported by the P-value of 0.6549 which is more than the significant level of 0.05 at the 95% confidence interval.

### **CONCLUSIONS**

Below are the conclusive remarks on research questions relating factors affecting performance of income generating units in Puntland State University which is public university.

#### **Allocation of resources**

The effect of allocation of resources on performance of income generating units at Puntland State University clearly appeared in the research study and that this effect is positive. More resource allocations are expected to result in better performance of IGUs just the same way limited resources are expected to impair the financial performance of such units.

#### **Internal controls**

Internal controls are intended to prevent misappropriation of financial reports by the officers. Internal controls enables accountability and transparency in the institution and encourage the reliability of daily transactions and institutional reports. It was noted internal controls have a positive effect on financial performance of IGUs and that Universities in Puntland State of Somalia can boost the performance of their IGUs by instituting very strong internal control systems.

#### **Management Capacity**

Management style and capacity plays significance role on performance of income generating units, since management is central machine that drives the overall activities of the institution, it was noted that consultation with staff by the management encourages the performance and



creates ownership and sacrifice contribution by the employees. This was conformed from this study in which performance of IGUs was positively related to the effectiveness and managerial capacity within those units. Accordingly, financial performance of IGUs can be boosted by employing competent managers to handle those units. The competence can be based on experience, academic qualifications as well as professional qualifications. Supportive staff help to improve the performance of the respective management teams.

### **Work Culture**

Finally organizational work culture determines how well staff can respond any form of change of new development, getting active communication channels and quick responses of inquiries effects performance of income generating units. The findings from the study do not however support this expectations. This may partly be attributed to the monolithic culture of the various managers at the PSU IGUs since all of them come from the same religion and therefore profess the same philosophy and cultural attributes.

In conclusion it is apparent that performance of income generating units is vital area for public universities considering they are provided very few funds. The public university should seek alternatives income sources if there is insufficient funds to sustain their activities and meet their expected results.

### **POLICY RECOMMENDATIONS**

The following three recommendations relate to the findings of the study and its policy implications. Firstly, the study found out that there is a significant and positive relationship between financial performance of IGUs and the amount and quality of resources allocated to those units. It is therefore recommended that Universities in the Puntland State of Somalia should find innovative ways of generating funds so as to adequately fund the IGUs so as to boost their financial performance. The institution should seek alternative fund sources rather than the government to reduce and eliminate the shortages of the fund and to get funds for researches and expansion programs.

Secondly, the study found out that there is a significant and positive relationship between financial performance of IGUs and the strength of the internal control systems instituted at those units. It is therefore recommended that Universities in the Puntland State of Somalia should strengthen the internal controls of monitoring IGUs within their campuses. These could be through such measures as internal audit, internal check, arithmetic controls, proper training of employees, computerization of operational functions, sending staff on compulsory leave,

carrying out surprise checks and other similar measures aimed at boosting the strength of the internal control systems so as to have them boost their financial performance.

Finally, the study found out that there is a significant and positive relationship between managerial capacity of IGUs and the financial performance of those units. It is therefore recommended that Universities in the Puntland State of Somalia should find innovative ways of attracting and retaining highly qualified and experienced management teams to head IGUs so as to boost their financial performance. The institutions should seek alternative ways of sourcing and maintaining managerial teams such as effective remuneration, refresher training, fair promotion criteria, enrolment for professional training as well as other forms of training and motivation.

### **RECOMMENDATIONS FOR FURTHER STUDY**

The following recommendations relate to the limitations of the study and are aimed at informing future research to bridge the gaps that are implied in the limitations and the recommendations.

Firstly, a study should be conducted to determine the factors affecting financial performance of IGUs in all the States of Somalia beyond Puntland state. This is because the findings of this study are only generalizable to Puntland and may not apply to other states that have different work culture, resource allocation bases and competitive priorities.

Secondly, a study need to be carried out to establish the determinants of financial performance of non-income generating units of Public Universities. This is because Universities are largely non-income oriented and therefore findings from a study based on other measures of performance other than income will be very informative.

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## APPENDIX 1: Acronyms and Abbreviations

|       |   |   |
|-------|---|---|
| ACCA  | : | Association of Chartered Certified Accountants        |
| AICPA | : | American Institute of Certified Public Accountants    |
| CAFÉ  | : | Cafeteria   |
| CIPFA | : | Chartered Institute of Public Finance and Accountancy |
| CONH  | : | Conference Hall                                       |
| FBES  | : | Faculty of Business, Economics & Statistics           |
| FOCE  | : | Faculty of Civil Engineering                          |
| FOCS  | : | Faculty of Computer Sciences                          |
| FOHS  | : | Faculty of Healthy Sciences                           |
| FOSL  | : | Faculty of Sharia Law                                 |
| FOSS  | : | Faculty of Social Sciences                            |
| FPGS  | : | Faculty of Post graduate studies                      |
| GPU   | : | General Production Units                              |
| IGU   | : | IncomeGeneratingUnit                                  |
| LCLN  | : | Legal Clinic  |
| LIBR  | : | Library   |
| MEDC  | : | Media Centre  |
| MIIP  | : | Module II Programmes                                  |
| PC    | : | Pure consultancies                                    |
| PCLN  | : | Pharmaceutical Clinic                                 |
| PPPU  | : | PSU Production and Printing unit                      |
| PSU   | : | Puntland State University                             |