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BAHIR DAR UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

DEPARTMENT OF ACCOUNTING AND FINANCE

FACTORS THAT AFFECT PROGRAM BUDGET UTILIZATION IN
BAHIR DAR UNIVERSITY

A THESIS SUBMITTED TO BAHIR DAR UNIVERSITY DEPARTMENT OF
ACCOUNTING AND FINANCE IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE AWARD OF ACCOUNTING AND FINANCE

BY: DESSIE ENGIDA

ADVISOR: TERAMAJE WALLE (PhD)

JANUARY, 2018
BAHIR DAR ETHIOPIA

Declaration statement

I declare that factors that affect program budget utilization in Bahir Dar University is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

APPROVAL SHEET

Approved by Board of Examiners

_____ Advisor	_____ Signature	_____ Date
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_____ External Examiner	_____ Signature	_____ Date
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_____ Internal Examiner	_____ Signature	_____ Date
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Lastly, but not the least I would like to extend my love and respect to my family who suffer a lot to make me a big man throughout their life.

LETTER OF CERTIFICATION

This is to certify that the thesis work entitled “factors that affect program budget utilization in Bahir Dar University” is done by **Mr Dessie Engida**, who carried out the research under my supervision. The matter embodied in this project work has not been submitted earlier for award of any degree or diploma. I further certify that, to the best of my knowledge the work reported herein doesn't form part of any other thesis or project report.

Advisor

TERAMAJE WALLE (PhD)

Signature_____

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List of Acronyms

CSR - ---Civil Service Reform

FDRE --- Federal Democratic Republic of Ethiopia

IFMIS----Integrated financial management information system

IMF- ---International monetary fund

MoFED -- Ministry of Finance and Economic Development

OFAG ---Office of Federal Auditor General

OECD - --Organization for Economic Co-operation and Development

PBS-----Program budget system

PBU- -----Program budget utilization

PFM- -----Public finance management

ABSTRACT

The purpose of this study is to examine factors that affect program budget utilization in Bahir Dar University. The study aims to examine the statistical significance of factors that affect program budget utilization. In light of this objective the study adopted quantitative method of research approaches to test a series of research hypothesis. Specifically, the study used survey of or questionnaire to obtain data for analysis of program budget utilization taking Bahir Dar University. Stratified sampling design was employed based on nature of target population. Then university management body and experts were selected based on stratified random sampling method. Consequently, the study selected a sample of one hundred twenty eight (128) individuals from the total of 190 observations. Data was then analyzed on quantitative basis using Pearson's correlation, linear regression analysis and descriptive statistics. The results showed that there is no statistically significance and positive relationship between structure and program budget utilization. Besides, the results showed that there is statistical significance and positive relationship among plan, commitment, communication, competency and program budget utilization.

Key words: Program Budget utilization, plan, commitment, structure, communication, competency.

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CHAPTER ONE

INTRODUCTION

1.1. Background of the Study

Budget is used to mean a plan for financing an enterprise or government during a definite period, which is prepared and submitted by a responsible executive to a representative body (or other duly constituted agent) whose approval and authorization are necessary before the plan may be executed, (Cleveland ,1915). In addition to this (Mullins and Pagano 2005) stated that the government's budgetary process is achieving these objectives by allocating finite resources to the prioritized needs of an organization. It is also a government's key financial plan in public organizations. It should enable the governments to achieve the main objective of poverty reduction by ensuring that basic services (including, health, education, water, housing, electricity, infrastructures, etc) are available to all citizens and that any applicable taxation is used to fund these services and reduce the prevailing levels of inequality. In most cases, for governmental institutions, the budget represents the legal authority to spend money for a set of purposes (Allison et al, 2009). Adoption of a budget in the governmental organizations implies that a set of decisions has been made by the governing board and administrators that concludes in matching a government's resources with the entity's needs (Allison et al, 2009). As such, the budget is a product of the planning process. The budget also provides an important tool for the control and evaluation of sources and the uses of resources. Using the accounting system to enact the will of the governing body, managers are able to execute and control activities that have been authorized by the budget and to evaluate financial performance on the basis of comparisons between budgeted and actual operations. Brown and Howard (2002) stated that budgetary control consists of budget preparation, comparison of actual results with those forecasted and the revision of budget in the light of changed circumstances. The functions of budgets includes: means of forecasting and planning, channel of communication and co-ordination, motivational device, means of evaluation and control, and source of information for decision-making (Herath and Indriani, 2007). Governments also set budgets through programs. A program budget is organized into service areas, rather than just departments, objects of expenditure, and line items. A program also describes a set of related activities or tasks intended to produce a desired result for constituents. Program budgeting invites participants in the budget process to make judgments

about the relative value of services and to allocate resources accordingly. This concern can be addressed by clearly identifying the value of each project, along with the cost, and explaining why resources are allocated as they have been. Generally, a program is broader than a line item or task, but more detailed than a department or entire function. Governments will want to identify programs that provide a discrete service that leads to an identifiable result or benefit.

In Ethiopia, the adoption of development planning to guide resource allocation was started in 1950s, and it has under-gone significant changes in the area of government policies and development priorities (Ghirmai, 1990). But after the military government took power, major industrial and financial activities came under the state control, which were the causes for the creation of huge public sector and expenditure (Teshome, 1994). In general, according to WB's , (1994) report excessive capital consumption of public enterprises, over centralization of the economic activities and the existence of continuous war, conflicts, drought and change of international situation made the country one of the poorest countries in the world. After the fall of the Derg regime in 1991, the Government of Ethiopia initiated a broad spectrum of economic reforms. To implement these reforms and to administer and manage economic and social development, different proclamations were issued in 1992. Proclamation No. 7/1992 provided the basis for the establishment of regional governments; the right to prepare approves and implements their own budget (MEDC, 1999). These Federal and Regional Governmental bodies are the public bodies responsible for government budgets administration and management. Budgets of public bodies are debated and approved official documents, as well as legal documents. Budgets include revenues and expenditures and are prepared at the end of a financial year in preparation for the coming year. In the public service, the main sources of budget are come from ordinary revenue, external assistance, and capital revenue. Hence, the funds expected from these three sources are proclaimed as the annual revenue budget for the country. The revenue budgets include taxes levied directly or none-taxes, fines and penalties, revenues from profit making state corporations, charges and fees on services rendered foreign aid and donations from development partners and internal and external borrowings, Federal Government of Ethiopia financial administration Proclamation No.(648/2009). The revenues raised both at Federal and Regional levels are then applied in main government expenditures for administration and developmental activities. It is common place to track the problems to governments that failed to institute, effective budgetary control and financial performance in the management of

their treasuries. In light of this fact, the researcher therefore has preferred doing this research work to assess the factors that affect program budget utilization in Ethiopian Public Universities focusing in case of Bahir Dar university program budget utilization.

1.2. Statement of the Problem

Effective and efficient budget utilization is determinant of socio-economic development of any given country including Ethiopia. In Ethiopia, resources like capital & recurrent budgets are major forms of financial planning in all regions of Ethiopia. Most governmental policies that have the potential to make a difference to people's lives cannot to do so without a budget, so that a rigorous aggregate expenditure control is highly required to assure an efficient use of resources in accordance with the government priorities (Allen and Tommasi, 2001).

However, the program budget utilization practices in the Ethiopian Public Universities have not been without problems. For example among the 33 public universities: Bahir Dar, Gondar, Arbaminch, and Mekele Universities have returned unutilized budget back to the federal treasury as indicated in the table.

Name of public university	Budget year in E.C	Returned amount in ETB	Remark
Bahir Dar University	2006	174,756,995.80	
	2007	48,359,357.25	
	2008	8,129,144.39	
	total	<u>231,245,497.44</u>	
Gondar University	2006	67,603,467.92	
	2007	281,608,468.94	
	2008	40,327,897.48	
	Total	<u>389,539,834.34</u>	
Arbaminich University	2006	157,563,980.33	
	2007	200,948,751.69	
	2008	195,358,573.41	
	Total	<u>553,871,305.43</u>	
Mekele University	2006	74,687,345.65	
	2007	93,344,808.95	
	2008	90,254,967.63	
	Total	<u>258,287,122.23</u>	
Grand total		<u>1,432,943,759.44</u>	

Table1.1 Unutilized amount of the Universities' approved annual budget

Source: Closed financial report of MoFED.

Such amount of unspent funds affects the recurrent and capital projects implementation process as well as the realization of governmental goals in the stated time government bodies and public universities. This showed some key governmental offices and institutions as well as Bahir Dar university program budget users have failed to utilize their capital and recurrent budgets allocated to them on time due to various factors and reasons. Auditor general report of 2013/2014 budget year, from 99 public organizations Over 2.576 billion Ethiopian Birr was unused and returned to treasury. In addition to this more than Birr 782 million was unutilized from four public universities, in 37 public organization about Birr 235 million was over utilized

and Ethiopian higher education has a lion share in over utilization of Birr 85 million in only four federal public universities. According to Charles Kipsang Rotich (2015) on his investigation of factors that affect budget utilization in County Governments for Kericho County in Kenya “annual amount of funds not utilized by Kenyan Government Counties returned to treasury has been a cause of concern to all stakeholders in the public management field and the findings indicated that there existed a positive and statistically significant relationship between tax compliance and budget utilization but a weak negative correlation was observed between VAT policy and budget utilization, Government policy and inflation were also found to affect budget utilization negatively”. Christine Kajuju Kirimi (2012) also studied on factors that affect budget utilization focused on Government interference, stringent transparency and accountability, organizational structure, cultural factors and behavioral factors and he concluded that the most focal factor that affects budget utilization are structural (annual plan, degree of authority and accountability of managers, lack of top management support lack of effective communication) and cultural factors (responsiveness to directives, fair service delivery, and lack of focus on achieving results). Here the researcher’s variables commitment and competency were not properly tested. Another article that found by the researcher related to this topic is conducted by Dejene Tafa and Semeneh Bessie (2016) on intrinsic factors affecting budget utilization. In this article, they had focused on measuring intrinsic factors of budget utilization using top management commitment, delay in approval of budget, ICT, employees’ knowledge, access to information, performance indicators, employees’ accountability, decentralized budget administrative system and communication system but they had not measured external relationship of the factors to stake holders.

With this in mind that the researcher fills the gap by analyzing the factors that affect the utilization of program budget in Bahir Dar University by measuring both external and internal causes of the dependent variable. Another motivating case to study this research is that previous researchers studied the effect of factors affecting budget utilization in different countries and in different variables of inflation, tax compliance and VAT policy which is different from these variables of plan, competency, commitment, organizational structure and communication factors effect in program budget utilization. Even though these independent variables impact on program budget utilization seen separately with different researchers in different years, here the researcher will examine together with these five independent variables impact in the case of Bahir Dar

University which is not previously studied by other researchers. Therefore, the researcher of this study motivated to identify the real problem of program budget utilization and recommend how it can solve that problem.

1.3. Objective of the Study

1.3.1. General Objective

The main objective of this study is to explain factors that affect program budget utilization in the Bahir Dar university.

1.3.2. Specific Objectives

This research gives special attention to the following specific objectives:

- 1) To demonstrate the relationship between financial plan and program budget utilization;
- 2) To investigate the effect of program budget users' commitment on program budget utilization.
- 3) To examine the relationship between universities's organizational structure and program budget utilization.
- 4) To identify the effect of communication gaps on program budget utilization of the university
- 5) To examine the effect of manpower's competency on program budget administration and utilization;

1.4. Research Hypothesis

In order to achieve the purpose of this study the following hypotheses are considered to be tested. The hypothesis is adapted from Dejenie and Semeneh (2016) empirical result explanation.

H1: Ha₁ Plan has positive and significant influence on program budget utilization.

H2: Ha₁ Commitment has positive and significant influence on program budget utilization.

H3: Ha₁ Structure has positive and significant influence on program budget utilization.

H4: Ha₁ Communication has positive and significant influence on program budget utilization.

H5: Ha₁ Competency has positive and significant influence on program budget utilization.

1.5 Significance of the Study

The researcher believes that the results of the study have the following significances:

- i. The study may be used by Bahir Dar University in addressing some of the factors that hinders effective and efficient program budget utilizations so that the higher institutions use its scarce resource for the intended public sector programmed services effectively and efficiently.

ii. The result also create awareness to university authoritative bodies from their failure of program budget utilization and improper use and execute of budget.

The study is use as preliminary information source and initiation for other researchers' who conduct comprehensive study.

In addition, the study lets the concerned management members realize the need to equip their staff, train and motivate them properly for efficient working mind-set. Moreover the study is help to build up and set appropriate mechanisms in the control of their scarce resources and utilize to meet their strategic objectives.

1.6. Delimitation (scope) of the Study

This study is concentrate on the examination of the factors that affect program budget utilization in Bahir Dar University only. Such research has not cover measurement of program budget outputs. This paper could be regarded as the first attempt to explore the existing factors on program budget utilization of Bahir Dar University.

1.7. Organization of the study

This Research paper consists of five chapters including chapter one which covers the introduction and context of the study, such as background of the study, statement of the problem, objective of the study, research questions, significance of the study, scope of the study and organization of the study. The second chapter is solely on literature review in budgeting and program budget utilization practices, in other words topic description of literature, and description of specific topic. This is basically the review of the researches that have been done relating to the topic under study by other people. Chapter three covers the methodology used on obtaining and analysis of data. Chapter four deals with the analysis and discussion of finding. The last chapter, which is chapter five, comprises the summary, conclusion and recommendations of the study.

HPTER TWO

LITERATURE REVIEW

In this chapter review of relevant theoretical literature from different books written on basic concept of government budget, preparation, allocation and utilization process is presented to identify and analyse documents containing information related to the research problem being investigated.

2.1. Theoretical review

2.1.1. Basic Concept and Definition of Government Budgeting

Budget is to be considered as financial plans. At this time the term budget is used to mean a plan for financing an enterprise or government during a definite period, which is prepared and submitted by a responsible executive to a representative body whose approval and authorization are necessary before the plan may be executed (Hyde, 1992). In a broader definition, different scholars define budget from government side in different ways. For instance, according to Richard and Daniel (2001) the national budget is very important for policy implementing processes in order to achieve a country's economic and social priorities within the scarce resources that are available to government for public expenditure. It plays a vital role in the process of fulfilling economic, political, legal and managerial functions of the government. Vander Waladt, (2007, p. 187) also stated that, 'Budget is a document which deals with allocating funds and is generated during the planning phase by the local authority or any other entity. 'According to him in local government context, this document is considered as a vital part of the integrated development planning process. A budget is a framework for revenue and expenditure outlays over a specified period usually one year and this is a financial plan specifying how objectives set in the plan will be achieved.

2.1.2. Program budgeting

In the mid-1990s, Ethiopia embarked upon a new Civil Service Reform (CSR) initiative. Arising from its various studies, one recommendation was to introduce program budgeting. The first piloting took place with federal ministries from 2006 to 2008 (three years). In 2009, a shadow Program budgeting exercise was undertaken, as introduction to full implementation a year later. The essence of Program budgeting is to allocate resources to outputs, in a program structure. The

program structure is the analytical core of Program budgeting. It is the key to linking not only planning and budgeting but also, capital and recurrent expenditure. The program is also the means for delivering and measuring the results, ultimately, of infrastructure and service provision MoFED program budget manual, (2010). Where as a line-item budgeting emphasizes inputs; it provides information on how much money is spent and how it is spent rather than on what it is spent. It does not link inputs with outputs and therefore says nothing about how efficiently resources are used and this line item budgeting approach was applied in the Federal Government of Ethiopia before 2005 but has not been well used in order to achieve priority setting policy objectives. As a result the shift from line item to program budgeting for the federal government in Ethiopia has occurred progressively since 2005, as part of the budget reform agenda. The primary objective of program budgeting was improve allocation efficiency through better expenditure prioritization. The major concern was a belief that expenditure allocation in the public sector was not sufficiently responsive to changing social needs and priorities, and that money could keep flowing year after year to ineffective programs because of a lack of proper expenditure planning processes or of accountability for results linked to the budget process Robinson, (2007). Yemisrach Fenta and Mulugeta Abebe, (2012) stated that Program budgeting in Federal government of Ethiopia is primarily designed to act as a basis for supporting Public Finance Management (PFM) reforms by enhancing performance management and accountability, enabling a stronger linkage between the annual budget and policy objectives, improving transparency and accessibility of information plus Degree of technical knowledge. Another researcher Robinson, (2010) noted that there is big challenge or difficulties in linking program budgeting to organizational structure. According to Tefera Asefa Moreda, (2015) program budget systems (PBS) need a wide range of basic supporting services, including budget examination, estimating, forecasting, monitoring, and evaluating, introducing accrual budgeting and accounting, double-entry accounting, IFMIS, new institution and institutional structures and program budgeting. If these components are not adequate, the budget system is unlikely to perform well. The researcher also listed some of the challenges faced in reforming the program budget in Ethiopia. These are Lack of man power's capacity, turnover of the staff, insufficiency in training, absence of strong and continuous monitoring and evolution on the implementation of the budget, lack of some conceptual understanding in PBS i. e there are a tendency to convert and relates department to the program or confuse organizational structure with program structure

in program design, lack effective infrastructural requirement that supports effective implementation of the program.

2.1.3. Program budget utilization

Program budget utilization should be accurate or proper means it shouldn't be under or over utilized in order to protect both the University's and the country's program budget deficit, delivered services and received goods based on approved annual physical plan, bring effective and efficient budget implementation, use resources timely for pre-determined annual recurrent and capital projects in the university as well as in the country wide. According to Bartle, (2001), budgetary Control is made through Continuous comparison analysis between budgeted amounts and the actual expenditures. Based on this comparison, the public organization can made corrective action (revision) of approved plan takes place by managers and experts in order to protect deviation (under or over) utilization of program budget. From this explanation we can understand that to bring proper program budget utilization periodical evaluation of plan and budget is mandatory activity of budget managers and experts. Based on MoFED's program budget manual, (2010) Budget implementation requires a work plan and this work plan shows the equality of the monthly cash flow requirement to disbursed amounts for actual expenditure and also actual expenditure with the approved budget for each output, within each program. In addition to this in terms of program budget utilization there is no opportunities for public organizations to spend more than it's approved annual budget and do not use capital allocations to recurrent expenditure but vice versa is permitted.

2.2. Factors affecting program budget utilization

2.2.1. Plan

According to Raiborn et al. (2006) planning is an intellectual behavior that involves envisioning the future, visualization what outcomes one wishes to occur both at individual and organization level, and determining the activities and resources needed to achieve those results. Executive directors, managers, officers and technical peoples often discuss and agree during strategic planning process on organizational missions, visions, goals and objectives, and how to achieve them. The public budget planning is a process by which government sets the level of expenditure, collects revenues and allocates the spending of resources among all sectors to meet national goals Shah, (2008). Government organizations plan their activities as well as the budget

to fulfill the public interest. Besides the financial plan of action for the year, reflecting government priorities on expenditure, revenue, and overall macroeconomic policy. So failure to link policy, planning and budgeting is an important factor contributing to poor budgeting outcomes at the macro, strategic and operational levels in developing countries. Therefore Ethiopia is one of developing countries and Bahir Dar university also one the public organizations (universities) of this developing country and with the researcher view the link between program plan and its budget utilization is not good. Because when we see the annual financial report of the university have both over and underutilization of budget and the total approved plan and approved budget is not coincide due to poor linkage of plan and budget utilization. Budget utilization is the real execution of the budget and request of funds to the planned activities during the financial year, however, in public organization usually not all funds are expended as per the plan, Dejene Tafa and Semeneh Bessie, (2016). Peters, (1998) another researcher also identified the following weaknesses in public organization resource allocation and use: there are poor planning; unlink policy makers, poor planning and budgeting; ineffective expenditure management; inadequate funding of actions and protections; little relation between budget as formulated and budget as utilized; inadequate accounting systems; unreliability in the flow of budgeted funds to agencies and to lower levels of government. Ketema Muluneh, (2015) said that “although planning and budget processes should be thorough and attempt to anticipate needs of the next year, not all future circumstances can be foreseen with accuracy”. With rare cases and when the situation demands, the approved budget can be legally adjusted during the year to adapt to unforeseen situations, but major budget adjustments are not desirable activities of the public organization and can be prevented by proper planning and budgeting. These unforeseen or undetected services during planning and budgeting process are adjusted by budget transfer from program to program by MoFED or within programs by the public organization itself and budget supplement by the MoFED. Generally there are two types of budget adjustments which helps to correct improper planning and budgeting and this improper planning also causes improper budget utilization in the public organization.

2.2.1.1. Budget transfer

According to financial administration proclamation no 648/2009 and financial regulation no 190/2010 improper planning and budgeting are adjusted by budget transfer and budget supplement with some restrictions. These restrictions are:

Transfers are not permitted from capital to recurrent budget but the opposite can transfer.

Transfers are not permitted from recurrent to salaries and wages budget.

All other transfers must be approved by MoFED when the transfer is between public bodies and between programs but within programs the public body empowered to approve transfers.

2.2.1.2. Budget supplement

Supplementary budget is requested during the budget year while the approved budget is being utilized and when there is unforeseen or unplanned circumstances happen and urgent need arises due to natural disaster or the public body (government) needs new projects which were not included in the original approved budget. Supplementary budgets are approved by the MoFED in accordance with the directives and the public body requests from additional resources such as assistance or loan. After both budget transfer and supplement approved by MoFED, the public bodies record subsidiary card so as to show the correct adjusted budget and to prevent any over or under utilization of program budget. According to Ketema Muluneh, (2015) some budget users prepare their annual financial plan without priority and purposefully with exaggeration. The main reason considered is that executives allocated budget usually by reducing some percentage from the original request. If program leaders, administrators, or budget users submit actual financial plan without overestimation, the amount given to the budget users for that budget year would less than what is expected. This shows both commitment of executives and financial plan affects annual program budget utilization, because the practice of budget users budget preparation or financial plan is not equal to appropriate services and activities. Edmund Kyei et al, (2015) said that It is recommended, among other things, that appropriate measures should be put in place to enable all staffs to prepare well assessed and accurate plans and budgets since the practices lead to effective utilization of state resources. A good budgetary planning involves not only analysis of recurrent and capital budget allocation but also involves analysis of both recurrent and capital budget priority implementation activities. According to Joshi et al, (2003); Malinga, (2002), as cited in Benon C. Basheka and Addah Nabwire² Budget planning concentrates on coming up detailed financial programs of action with clear objectives and goals aimed at reducing uncertainty by giving proper direction on how organizational resources and performance efforts should be spent in order to achieve the stated goals and objectives.

2.2.2. Competency

The researcher will examine the effect of competency such as skill and knowledge of budget users and other heads in program budget utilization. Different scholars stated about the effect of competency in budget utilization, in planning, and monitors of approved budget properly. Dejene Tafa and Semeneh Bessie, (2016) conclude that the causes of miss-utilization of program budget is lack of competency i. e. skill and knowledge of staffs in each departments in planning, monitoring, communication and reporting in appropriate way and time based on directives of budget and financial administration. This shows inadequate knowledge causes initially to prepare improper plan and this improper plan also causes the allocation of under or over budget of programs, sections and departments. This under or over budget allocation also brings poor budget utilization due to the allocation of unequal budget to predetermined services and activities. Yemisrach Fenta¹ and Mulugeta Abebe², (2012) also demonstrated that periodical training of program budget directives, manuals and modules improve man powers competency in using proper program budget utilization. Kanayo Kingsley Ogujiuba¹, Kizito Ehigiamusoe², (2014), stated the low performance or underutilization of budget is due to inadequacy of implementation of plan, lack of monitoring, delays in budget release and lack of technical capacity are the major factors specially for poor capital expenditure utilization. Studies explained that in public expenditure administration, lack of financial estimation for resources weaken strategic prioritization and makes it harsh for public officials to plan for the provision of services. Yemesrach Fenta and Mulugeta Abebe, (2012), believes that the implementation of program budgeting to a certain extent gets confused for managers and experts. According to their conclusion, the confusions also arose from incompetency of staffs in defining and establishing outputs and objectives, linking plan with budget, setting performance indicators and targets. in addition, there exists a conceptual misunderstanding relating to the idea of output, recurrent activities, efficiency and effectiveness.

2.2.3. Commitment

Kenneth Odour Adongo, (2013) mentioned that “Human factors within budgetary controls thus managerial commitment, employees’ motivation, employee training, competence as well as the attitude affect the budget control process.” From this explanation we understand that budget

utilization is one of the parts of budgetary controls and it is affected by human factors of managerial commitment and competency. Therefore, based on the above verification, if there are committed and competent staffs in the public organization, there is also effective and efficient program budget utilization. Perrin, (2012), as cited in Kenneth Odour Adongo, (2013), if a budgetary control program is to be successful, it must have complete acceptance and support of the persons who occupy key management positions. If lower or middle level management personnel understands as top management is careless or simply tolerate about budgetary controls, then their own attitude will reflect similar lack of excited. In the study of Dejene Tafa and Semeneh Bessie, (2016), respondents' opinion was also assessed about a lack of the top management commitment to budget utilization. The result of the study shows that of the total 178 respondents included in the survey some 80 respondents (45%) agree that lack of the top management commitment has affected budget utilization in the study.

2.2.4. Organizational structure

PB has to reconcile the program structure with the organizational structure it represents, program budget manual, (2010). Organizational structure induced factors such as lack of effective budget monitoring, lack of a decentralized budget administration system, absence of clear hierarchy in the administration of budgets, structural relationship between different department and lack of effective communication are some of the main factors that affect public budget utilization in Ethiopia, Dejene Tafa Semeneh Bessie, (2016). Joaquín Sevilla, (2005) Verifies that In a decentralized structure environment, public spending or utilization of budget needs some degree of fiscal discipline, favourable institutional relationships, a stable negotiation framework, management co-operation, permanent and transparent reporting ,and reliable and co-operative control structures across levels of programs, departments and sections of public organizations. Besides to this there must be budget delegation for managers by executive body with strong internal control, accountability and responsibility, periodical examination by both internal and external auditors in order to utilize budgets properly in decentralized organizational structure. Because decentralized organizational structures are perform their budget utilization independently and their financial operation is far from senior executives. Jens Kromann Kristensen et al, (2002), the Annual Plans and the internal annual budget are, to a large extent, integrated processes. At agency level, the budget and accounts structures are partly organizational and partly program or activity based. This implies that some agencies link the

budget to the performance targets, while others mainly focus on inputs. The above linkage is become best, when the organizational structure and budget allocation as well as utilization is suitable for controlling, revising and reporting purpose for both middle and top level managers.

2.2.5. Communication

It is not the budget itself that facilitates communication, but the vital information is communicated in the act of preparing budgets and participation of all responsible individuals in this act, Pasha, (2007). Transparency of fiscal and financial information is another problem for an informed executive, legislature, and public. Scholars show that dumping immense amounts of raw budgetary material on the public does nothing to improve fiscal transparency, Lewis, (2007). The IMF (International Monetary Fund) Code of Good Practices on Fiscal Transparency emphasizes the importance of clear fiscal roles and responsibilities; public availability of information; open processes for budget preparation, execution, and reporting; and independent reviews and assurance of the integrity of fiscal forecasts, information, and accounts, IMF, (2001). Teresa Curristine et al, (2007) describes that increasing the use of performance information in budgeting processes is an important work force or initiation throughout the programs and budgeted departments in prioritizing and identifying what is utilize and what is not utilized from approved budget. It is also part of an ongoing process that looks for to move the concentration of decision making in budgeting away from inputs (how much money can I get?) towards measurable outcomes (what can I achieve with this money?). Exaut Julius, (2006), verifies that accounting information is useful in decision making with respect to users' competence and quality of accounting information provided. Accounting information contains budget information of approved, adjusted and utilized budget amounts in the financial reporting for budget users' decision making purpose

2.3. Summary of literature review

Various literatures stated on budget planning, commitment, structure, communication, competency, and budget utilization practices and other related activities and procedures. Furthermore researchers' explained about under or over program budget utilization and its challenges and deficiencies in management.

Generally when we summarized the empirical review, researchers' stated some findings such as Yemsrach Fenta¹ And Mulugeta Abebe², (2012), explained that When the capacity of the

organizational man power in understanding of policies, regulations, procedures and terminologies of program budget is effective and efficient through sufficient training, then the organization's program budget utilization also proper. Furthermore, public organizations budget programs synchronized with organizations' structure in order to bring appropriate program budget utilization and successful achievement in organizational objectives, Christine Kajuju Kirimi, (2012). Another researcher Ketema Muluneh, (2015) found inadequate knowledge, lack of experience and awareness budget users about the role of plan and budget to the health bureau are hinders of budget preparation and utilization in Case of Addis Ababa City Administration Health Bureau because the researcher found contradict ideas i.e. (72%) of respondents agreed upon on the existence of a relation between plan prepared with budget requested except in some situations. On the contradict questions of budget revision 65 percent of the respondents (28 of 43) agreed that they revise their plan frequently in relation to annual budget. From the responses the two ideas contradict with each other then the researcher concluded that there were mismatch between plan prepared and annual budget requested. Finally To sum up, the researcher concluded that the causes for underutilization of budget are mainly due to lack of coordinated effort, incapacitated budget staffs in terms of skill and knowledge in each respective budget offices and lack of information by management at each level of the health sector to evaluate the budget utilization status which lead towards underutilization of budget.

As different authors stated, program budget utilization affected by human factors of managerial commitment, employees motivation, employee training, competency as well as the attitude of organizational employees, Kenneth Odour Adongo¹ and Ambrose Jagongo PHD, MKIM², (2013). Besides to them according to Dejene Tafa And Semeneh Bessie, (2016), lack of proper planning, allocation of budget and effective communication, in adequate knowledge in the university are major challenges. The research result indicated that about 114 (64%) of the respondents confirmed that there were problems of matching proposed activity plans with the available budget. Of the total 178 respondents included in the survey some 95 respondents (53%) agree that there was a tendency requesting budgets without proper planning in the study universities. In the same way, about 35% of the respondents replied that their university in general lack of reliable estimation in planning and requesting the budget for the proposed activities. The majority (56 %) of the respondents replied that the employees in the study universities lack the necessary skill and knowledge of understanding the basic concepts of

program budgeting. Besides to the above result the research indicated that the respondents' opinion was also assessed about a lack of the top management commitment to budget utilization. Of the total 178 respondents included in the survey some 80 respondents (45%) agree that lack of the top management commitment has affected budget utilization in the study universities. Similarly, the majority respondents (74%) agree that the absence of full involvement of the line managers in planning and budgeting process affects the budget utilization in their university. Lack of clear hierarchy in the administration of budgets, and the structural relationship between different departments affect budget utilization of their respective universities. The descriptive statistics indicate that both of the above statements have a mean of 3.81, and 3.49 and of the total respondents 128 (72%) and 94 (52.8%) respondents completely agreed with structural problem of the university.

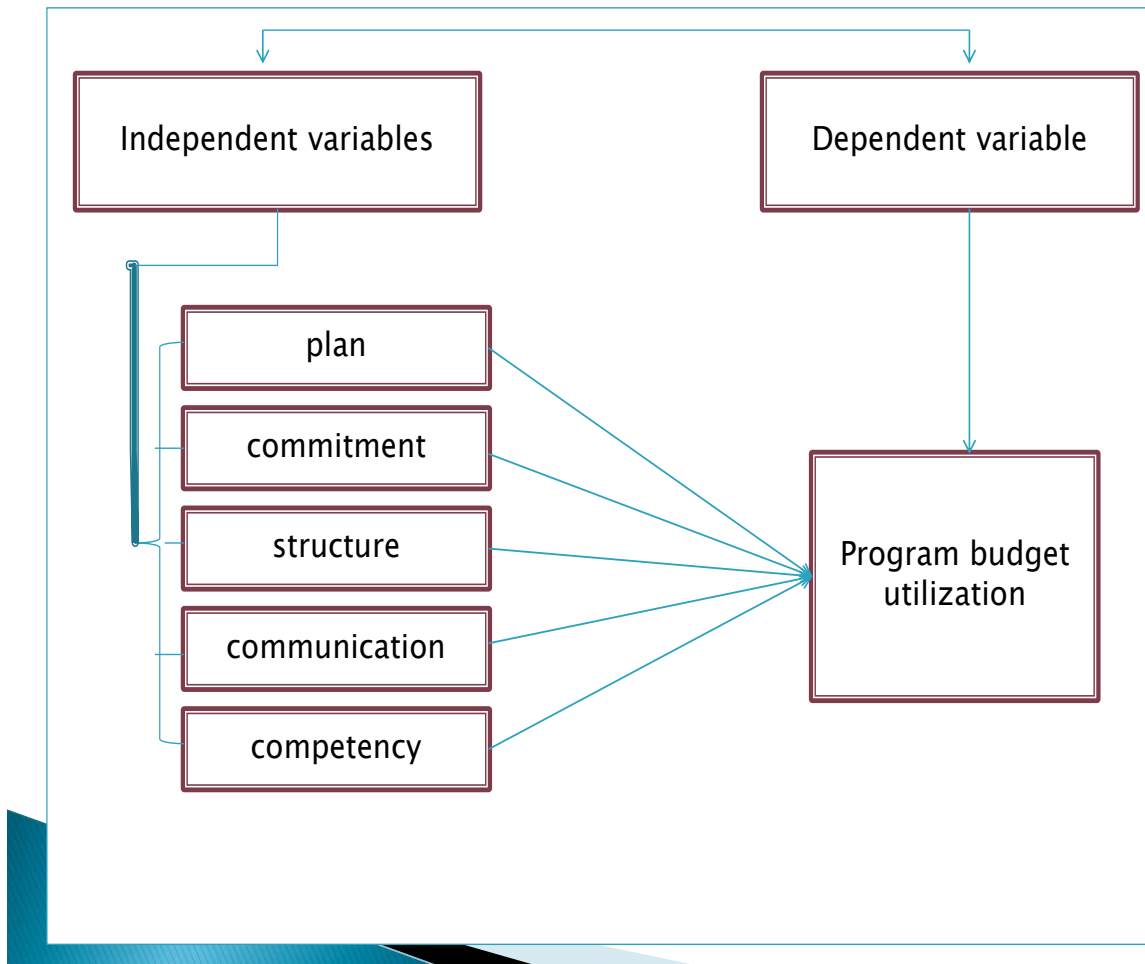
The descriptive statistics reveal that mean of 3.85 implying lack of adequate training on budget and plan was also one of the major internal factors affecting budget utilization in the study public universities. This consequence also has a result of inadequate knowledge of people toward program budget utilization.

This indicates, if there are proper physical activity planning and effective communication in the public organization, there would be effective and efficient budget utilization. Wan Noor Hayatie Wan Abdul Aziz et al, (2014) investigated relationship of budget allocation and utilization of faculties in public university of Malaysia based on expenditures of quarterly budget utilization. Another research by Charles Kipsang Rotich and Solomon Ngahu, (2015) studied on factors affecting budget utilization in kerincho county government Kenya using independent variables of inflation, tax compliance and vat policy impact on budget utilization.

Although various researchers' found different factors that hinders budget utilization in different organization using descriptive research design, this study will examine with the other method of explanatory research design, with cross sectional survey and regression model data analysis method. Besides to this one of the researcher seen only internal causes and the others verify factors /variables/ in different organization or country in related topics, but this research examines both external and internal causes of budget utilization. That is why the researcher needs farther study the stated factors effect in Bahir Dar University program budget utilization

2.4. Conceptual framework of the study

It is supposed that the forecasted independent variables affect program budget utilization in the Bahir Dar university



► **Figure 2.1 conceptual framework**

► Source: Adapted from reviewed literature, Solomon Ngahu (2015)

CHAPTER THREE

Research Methodology

3.1. Introduction

This chapter describes the research design and methodology that is employed to determine the factors that affect program budget utilization in Bahir Dar University. The structure of this chapter begin with research approaches, and including research design, target population, sampling frame and sampling techniques, measurement of variables, research instrument and measurement, reliability and validity test, data collection, data analysis and presentation with regression model.

3.2. Research Approach and paradigm

In this study quantitative method applied and quantitative data is collected to answer questions through controlled deductive hypothesis process. According to Creswell, (2003) the quantitative survey research design is vital to create quantifiable causes and effect relationships between the variables of the study. As cited in Abraham, et al, (2014) and Christensen, (1985) noted that quantitative survey is the most appropriate one to use if the purpose of an investigation is to describe the degree of relationship which exists between the variables. Therefore based on this method questionnaires distribute to respondents that enable the research to measure the factors that affect program budget utilization by collecting quantitative data from the survey method.

3.3. Research design

The researcher used both descriptive and explanatory research design by using quantitative methods using structured questionnaires and generating statistics through standard statistical analysis techniques of SPSS-22. The purpose of quantitative research is to make explanations and predictions that can be generalized to other persons. In addition to this research design focuses upon turning a research question and objectives in to a research project, Pearson, (2009). Explanatory Research seeks explanations of observed phenomena, problems, or behaviors. Seek answers to why, what and how types of questions. Therefore the researcher uses this explanatory research to determine the accuracy of the theory, to test predicted theory and providing evidence to support or refuse on explanation. The researcher also uses explanatory research design to

show causes and effect relationships of independent with dependent variables. Furthermore the researcher uses Cross-sectional survey to ascertain and describe the characteristics of variables and analyzed on quantitative data from the survey of program budget utilization (dependent variable) in line with affecting factors (independent variables).

3.4. Data type and source

For the proper achievement of the objectives of the study, the researcher used primary data source. Primary data was collected through structured closed-ended questionnaire from employees of the University. The questionnaires are designed in such a way that is understandable to respondents, reduce bias and provide data that could be statistically analyzed. The variables are attitudinal and measured using five point Likert scale with response options ranging from to strongly disagree, disagree, neutral, agree and strongly agree. The Likert scale method was preferred to make questions interesting to respondents and there by enhance their cooperation, ultimately ensure maximum response rate (Robson Colin, 2002).

3.5. Data collection methods

In order to collect the data from respondents, the questionnaire with an introduction which explained the objectives of the study were distributed in person. Additional follow up and clear instruction were provided for respondents to ascertain appropriate understanding. Methods of data collection relatively dependence on structured questioners prepared by Swaminath (2004) which was prepared in the form of Likert five scales. To measure program budget utilization performance, the researcher attempt to prepare the questionnaire in relation to the variables and a test has made for the reliability and check the dependability. For the purpose of data collection, closed ended structured questionnaires were prepared. Closed ended questionnaires have prepared on the bases of budget utilization relationship to plan, commitment, competency, organizational structure and communication. The questionnaire is divided in to two sections. The first section contains the demographic characteristics of the respondents to provide information about their gender, age, year of service or experience, education level and field of study. The second section of the questionnaire has designed to enable to gather information about effectiveness of program budget utilization in Bahir Dar University. For all questionnaires included in section 2, the respondents were requested to indicate their feeling on a five point Likert scale type to measure weight as follows: 1=strongly disagree, i.e., very much dissatisfied

with the case described, 2=disagree, i.e., not satisfied with the case described, 3=neutral, i.e., uncertain with the case, 4=agree, i.e., feeling alright with the case described, and 5= strongly agree, i.e., very much supporting the case described. The questionnaires are prepared in English language and adapted from different scholars questionnaires such as Yemesrach Fent Mulugeta Abebe, (2012), Dejene Tafa and Smeneh Bessie (2016), Charles N. Minjire and Kennedy Ogollah, (2017). In each variable measurement there is at least 4 questions. The respondents are asked for each item to show their degree of agreement on a five-point Likert type scale.

3.6. Sampling techniques

After identifying the number of respondents was used through stratified sampling technique in each departments of the university. The researcher dispatched the questionnaires using one of the probabilistic sampling techniques called simple random technique.

3.7. Target Population and sample size

The population of this study includes all employees of Bahir Dar University in different departments. In the determinations of sample size the three criteria is very important to gather the required data from sample respondents. These were included the level of precision, the level of confidence or risk and the degree of variability in the attributes being measured that enable to determine appropriate sample size (Miauou & Michener, 1976). The target population selected from the total population of Bahir Dar university employees that the researcher concentrates who have concept, experience and knowledge in relation to finance, plan, budget and budget utilization of the university and delegated from the president to administer program budget. The target population contains the president and vice presidents (5 employees), deans (22 employees), executive, research, managing directors (52 employees), finance heads and experts (66 employees), procurement heads (10 employees), internal auditors (16 employees), plan & budget experts (19 employees). Then the total target population for this study is 190 employees.

In order to determine the sample size of the population the researcher uses the following sample size determination formula developed by Taro Yamane (1967). It is calculated as follows.

$n = \frac{N}{1+N(e)^2}$ where “n” is the sample size, “N” is the population size “e” the level of the precision. By using this formula at 95% confidence level and 5% level of precision the sample size has been obtained as follows. $n = \frac{190}{1+190(0.05)^2}$ $n = 128$

The proportional sample size from each stratum is calculated by using the following formula:

$n_i = \frac{n \cdot N_i}{N}$ where n_i = number of sample size for each branches, N_i = the total number of employees in each departments, N = the total number of target population.

Accordingly, the table below shows the proportionate sampling for each branches based on the above given formula.

No	List of departments	Total Number of employees	Total number of sample size to be taken
1	President and v/president	5	3
2	Scientific, executive, managing directors and other directors	52	35
3	Deans	22	15
5	Finance heads and experts	66	44
6	Procurement heads	10	7
7	Internal auditors	16	11
8	Plan and budget experts	19	13
	Total	190	128

Table: 3.1 proportionate sample distribution for each branch.

After identifying the number of respondents in each selected departments the researcher has dispatched the questionnaire using convenience sampling method. Having selected such number of respondents, questionnaires are distributed by using simple random sampling to get each respondent from each department. This sampling technique was chosen as it gives each number of population fair or equal chances of being selected.

3.8. Methods of Data Analysis

All hypotheses are tested with the help of the statistical package for social science (spss-22) software. In order to analyze the data the two sets of statistics: descriptive and inferential statistics are used. Descriptive statistics summarizes and describes quantitative information in the form of frequency distribution and measures of central tendency, whereas inferential statistics is used to make conclusions. During the data analysis **Pearson correlation** is used to measure the direction and strength of the relationship between the research variables.

3.8.1. Multiple Regression Analysis

Multiple regression analysis was used to investigate the effect of program budget utilization factors (plan, commitment, structure, communication and competency) on program budget utilization of the university.

3.8.2. Regression functions

The equation of multiple regressions in this study is generally built around two sets of variable, namely dependent variables (program budget utilization) and independent variables (plan, commitment, structure, communication and competency). The basic objective of using regression equation on this study is to make the researcher more effective at describing, understanding, predicting, and controlling the stated variables.

Independent variables

Plan

Commitment

Structure

Communication

Competency

Dependent variables

program budget utilization

Regress factors that affect program budget utilization.

$$Y_i = \beta + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \epsilon$$

Where Y is the dependent variable- program budget utilization

X1, X2, X3, X4 and X5 are the explanatory variables.

β is the intercept term- it gives the mean or average effect on Y of all the variables excluded from the equation, although its mechanical interpretation is the average value of Y when the stated independent variables are set equal to zero.

$\beta_1, \beta_2, \beta_3, \beta_4$ and β_5 refer to the coefficient of their respective independent variable which measures the change in the mean value of Y, per unit change in their respective independent variables.

ϵ is the error term. Furthermore the researcher represents the above equation with the variable representatives as follows:

$$Y_i = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \epsilon$$

$$PB = \alpha + \beta_1 P + \beta_2 C_1 + \beta_3 S + \beta_4 C_2 + \beta_5 C_3 + \epsilon$$

Where: $Y_i = PB$ = program budget utilization

α = the intercept term

$X_1 = P$ = approved annual plan

$X_2 = C_1$ = commitment of man power

$X_3 = S$ = organizational structure

$X_4 = C_2$ = communication

$X_5 = C_3$ = competency of man power

ϵ = Model error term

$\beta_1 \text{ --- } \beta_5$ = Coefficients of Variables

3.9. Ethical Issues

According to Ghauri and Gronhaug (2002), any research that has no room for ethical considerations cannot be termed as valid. The researcher undertook all necessary measures to ensure that all ethical aspects of the research process were followed. In particular, the researcher made efforts to ensure that the respondents understood that their participation in the research process was on a voluntary basis and they can withdraw at any time if they like. Furthermore, the researcher also carried all measures possible to ensure that respondents' identities were kept anonymous.

CHAPTER FOUR

DATA ANALYSES AND DISCUSION OF RESULTS

4.1 Introduction

In this chapter background information of respondents, frequency distribution, descriptive statistics (mean and standard deviation), and inferential analysis such as Pearson's correlation and multiple regression analysis & research findings presented. For the purpose of analysis, Statistical Package for the Social Sciences (SPSS) version 22 is used. Finally the result and discussions are presented.

4.2 Descriptive statistics and respondents profile

Descriptive statistics in the form of frequencies, arithmetic means and standard deviations are computed for the various dimensions of demographic profile of respondents and their perception on factors affecting program budget utilization.

4.2.1 Demographic profile of respondents

One hundred twenty eight questionnaires were distributed to the respondents and one hundred twenty four of them were collected with a response rate of 96.9%. The demographic characteristics include: sex, age, level of education, work experience and field of study. This aspect of the analysis deals with the personal data of respondents to the questionnaires given to them. The demographic profile of the respondents which is considered crucial for this study is presented as follows.

No.	Demographics	Response category	Frequency	Percent
1	Sex	male	100	80.6
		female	24	19.4
		Total	124	100
2	Age	from 25-35 years	36	29
		from 36-45 years	65	52.4
		above 45 years	23	18.5
		Total	124	100
3	Education	Bachelor degree	85	68.5
		Master's degree	27	21.8
		PhD	12	9.7
		Total	124	100
4	Experience	Below 2 year	3	2.4
		2-4 years	25	20.2
		5-7 years	20	16.1
		above 7 years	76	61.3
		Total	124	100
5	Field of study	Accounting	43	34.7
		Management	34	27.4
		Economics	12	9.7
		Logistics and supply chain management	2	1.6
		Marketing	1	0.8
		Others	32	25.8
		Total	124	100

Table 4.1 Demographic information of respondents.

Source: Survey data, 2017

Out of the 124 respondents 100(80.6%) of them are males and 24(19.4%) are females. The data describes that the number of female workers or respondents in Bahir Dar University are very few.

When we see the age proportion of Bahir Dar University respondent heads and experts, 29.0% of them are between the ages of 25 to 35, 52.4% of them are between the ages of 36 to 45, 18.5 % of them are greater than the ages of 45 years. We can conclude that the majority of Bahir Dar

University experts and heads are at their adult stage which has a great contribution for university plan and budget performance.

As illustrated from the above table 4.1 the educational level of respondents shows that 68.5% of them are bachelor degree graduates, 21.8% of them are master's degree holders, 9.7% of them are PhD holders. From these we can conclude that since most of Bahir Dar university respondents are bachelor degree and above graduates then they can understand the questions and respond forwarded easily.

As illustrated from the above table 4.1 the experience level of respondents shows that 2.4 % of them are less than two, 20.2% of them are from 2-4 years experience, 16.1% of them are from 5-7 years experience, 61.3 % of them are above seven year's experience. From these we can conclude that since most of respondents are more experienced employees then they can understand the questions or researcher's variables impact on budget utilization. Besides to this the respondents experience 61.3% shows that most of the respondents are appropriate samples for the study.

As illustrated from the above table 4.1 field of study level of respondents shows that 34.7 % of them are Accounting and finance, 27.4% of them are Management, 9.7% of them are Economics, 1.6 % of them are Logistics and supply chain mgt., 0.8% of them are Marketing and 25.8% of them are other fields. From these we can conclude that since most of respondents are more professionally related fields to the study who are 74.2%(24.7%+27.4%+9.7%++1.6%) of employees, then they can understand the questions or researcher's variables impact on budget utilization. On the other hand, almost 25.8% of the university's employees who are assigned in preparing, utilizing and controlling the budget are non-business specialists and may be challenged to accomplish such duties and responsibilities unless they can understand with the help of their practical experience.

4.2.2 Descriptive statistics for Study Variables

The purpose of this section is to understand agree and disagree of factors of program budget utilization in Bahir Dar University. Therefore, data related to each of factors of program budget utilization: plan (P), commitment (C_1), structure (S), communication (C_2), and competency (C_3), the results are presented in the same format as in the questionnaire. A total of 128 copies of

questionnaires were sent to Bahir Dar University budget administrators and experts of respondents. From the employee respondents, 124 usable questionnaires were obtained (96.9%) response rate and 4 (3.1%) questionnaires were not returned to the researcher. Descriptive measures

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
P	124	1.17	4.50	2.7809	.64755
C1	124	1.17	5.00	2.7433	.74729
S	124	1.00	7.25	2.6008	.86774
C2	124	1.40	4.40	2.8129	.71123
C3	124	1.00	4.80	2.5242	.68602
PB	124	1.20	4.80	2.7710	.67892
Valid N (listwise)	124				

Table: 4.2 Descriptive Statistics

Source: Survey data, 2017

4.2.2.1. Program budget utilization

Employees mean responses for all Questions (5 items) was 2.77 and the standard deviations was 0.67892. The standard deviations (67.89%) for Bahir Dar university employee suggest that there existed variability in ratings of the respondents. The employees' mean responses were nearest to 2.00 (average) in five of the questions indicating that university employee of the respondents viewed the program budget utilization is not proper in the university.

Questions of program budget utilization (PB)	strongly disagree(1)		Disagree		Neutral		Agree		strongly agree		Mean score
	frequency	percentage	frequency	percentage	frequency	percentage	frequency	percentage	frequency	percentage	
1 .Higher level managements reviewed the status of program budget utilization monthly, quarterly, semi- annually and annually by participating budget users/administrators.	10	8.1	45	36.3	27	21.8	37	29.8	5	4	2.85
2. The management support experts by providing access to the tools and set training to bring proper budget utilization in the university.	11	8.9	52	41.9	26	21	32	25.8	3	2.4	2.71
3. The university's finance and budget experts and budget user managements are properly administered and make timely summary about budget utilization.	10	8.1	53	42.7	8	6.5	47	37.9	6	4.8	2.89
4. There is strong focus in the university on achieving results and managing performance of program budget utilization.	12	9.7	51	41.1	35	28.2	23	18.5	3	2.4	2.63
5. Your office has the practice of regular follow up on program budget utilization.	13	10.5	43	34.7	24	19.4	43	34.4	1	0.8	2.81

Source: Survey data, 2017

Table: 4.3 Respondents argument on program budget utilization

From the information collected in the above table 4.3 for question1 of program budget utilization 45 of the respondents with a percentage of 36.3 disagree and 10 of the respondents with the percentage of 8.1 strongly disagree and the mean score of 2.85 shows that most of the respondents' response disagree. For question2 of program budget utilization 52 of the respondents with a percentage of 41.9 disagree and 11 of the respondents with the percentage of 8.9 strongly disagree and the mean score of 2.71 shows that most of the respondents response disagree. For question3 of program budget utilization 53 of the respondents with a percentage of 42.7 disagree and 10 of the respondents with the percentage of 8.1 strongly disagree and the mean

score of 2.89 shows that most of the respondents response disagree. For question4 of program budget utilization 51 of the respondents with a percentage of 41.1 disagree and 12 of the respondents with the percentage of 9.7 strongly disagree and the mean score of 2.63 shows that most of the respondents response disagree. For question5 of plan43 of the respondents with a percentage of 34.7disagree and 13 of the respondents with the percentage of 10.5 strongly disagree and the mean score of 2.81 shows that most of the respondents' response disagrees in relation to program budget utilization. This indicated that there was not good achievement of program budget utilization in the university.

4.2.2.1 Trends in program budget utilizations

Once a budget has been approved by the legislature, the government embarks on the challenging task of spending funds. Utilizing public funds effectively to meet stated policy objectives while ensuring value for money is often just as challenging than planning how to spend it, (Ketema Muluneh, 2015).

Ethiopian Fiscal year	Approved budget	Budget supplement	Transfer Added Or deducted	Adjusted budget	Actual expenditure	Over Or Under utilization
2004	902,630,700	0	162,629,627	902,630,700	778,290,062	124,340,632
2005	1,030,869,300	52,904,966	234,394,517	1,083,774,266	869,592,815	214,181,451
2006	1,266,526,300.	156,363,382	194,285,105	1,422,889,682	1,248,132,686	174,756,995
2007	1,327,207,540	277,305,476	474,127,963	1,604,513,016	1,652,872,373	-48,359,357
2008	1,561,497,100	292,012,923	483,223,522	1,293,510,023	1,785,380,878	8,129,144
2009	1,760,000,000	213,300,104	470,010,774	1,973,300,104	1,933,901,949	39,398,155

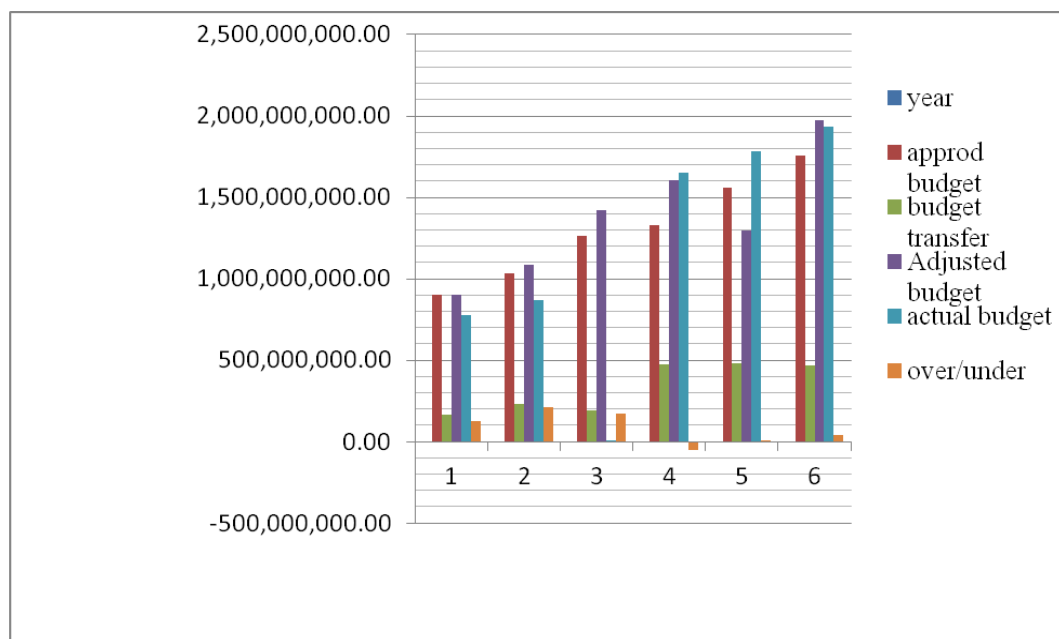
Table 4.4 Trends of program budget utilization from 2004-2009E.C. in Bahir Dar university

Source: Closed financial report of Bahir Dar university

According to the above six years approved and adjusted budget of both capital and recurrent budget of Bahir Dar University, one can observe that there was a problem in utilizing the budget effectively and efficiently. As a result there was under utilization of budget in the previous successive years i.e. (2004-2009E.C.) except 2007 E.C. underutilizing budget in the university.

In addition to these under/over utilization there is excess amount of budget transfer in each year and indicated that there were improper plan, lack of commitment in achieving pre set program objectives, lack of competency in applying budget directives in order to bring proper program budget utilization. Furthermore, the above table 4.4 supports positively the regression result of the research variables impact or influence on program budget utilization.

Graph 4.1 Budget utilization trend of the university



Source: BDU closed financial report from 2004-2009E.C.

From the graph the numbers represent 1 for 2004 year, 2 for 2005 year, 3 for 2006 year, 4 for 2007 year, 5 for 2008 year and 6 for 2009 year approved budget, transferred, adjusted, actual and under/over utilization of the university.

The graph indicated that Approved budget, budget transferred and actual budget utilized increased gradually from year to year. Over utilization of 2007E.C. budget year indicates that in some way it seems breaking of laws and in other way presence of settled advance payments which was given in the previous budget year and the graph shows downward direction to show the negative sign over utilization.

As per some scholar stated that official budget may coexist with large amounts of off budget spending. As per Allen and Tommasi (2001), underutilization does not necessarily mean that there is good fiscal discipline in the country. Sound budget preparation processes and adequate institutional arrangements are a prerequisite for avoiding these discrepancies. The expenditure budget has not been used according to the plan. This result shows that the university has a low performance and the budget plan was wrong. Professionals mentioned that lack of proper budget planning, continuous budget transfer requests, idle cash in the account, networking or communication problems with budget holders and experts, lack of skilled manpower and experience (competency) are among the deriving factors that bring discrepancies in program budget utilization. Their justification is maintained with the reasons given by Omitoogun and Hutchful (2006) who identified the more common causes of expenditure variations as: deviation in aggregate expenditure; reallocation of fund during budget implementation; policy changes during the year; an inability to implement policies, programs and projects; and a lack of financial discipline.

4.2.2.2 Plan

Employees mean responses for all Question1-5(5 items) were 2.78 and the standard deviations were 0.64755. The standard deviations (64.76%) for Bahir Dar university employee suggest that there existed variability in ratings of the respondents. The employees' mean responses were nearest to 2.00 (average) in five of the questions indicating that university employee of respondents viewed the plan as not high level of support or contribution for university and there is no a good practice on plan variables in Bahir Dar university employees.

Understanding about plan and budget is an important input for the preparation of realistic and sound budget. From the information collected in the table 4.5 for question1 of plan 64 of the respondents with a percentage of 51.6 disagree and 9 of the respondents with the percentage of 7.3 strongly disagree and the mean score of 2.67 shows that most of the respondents' response disagree. For question2 of plan 58 of the respondents with a percentage of 46.8 disagree and 5 of the respondents with the percentage of 4.0 strongly disagree and the mean score of 2.77 shows that most of the respondents response disagree. For question3 of plan 45 of the respondents with a percentage of 36.3 disagree and 14 of the respondents with the percentage of 11.3 strongly disagree and the mean score of 2.73 shows that most of the respondents response disagree.

Questions of plan (p)	strongly disagree		Disagree		Neutral		Agree		strongly agree		Mean score
	frequency	percentage	frequency	percentage	frequency	percentage	frequency	percentage	frequency	percentage	
1. I think your office /college/ approved annual physical plan obtain equal amount of annual program budget from the university.	9	7.3	64	51.6	11	8.9	39	31.5	1	0.8	2.67
2. University's approved annual plan prepares based on reliable and accurate data /practically services rendered and goods received during the year./	5	4.8	58	46.8	23	18.5	37	29.8	1	0.8	2.77
3. There is full involvement of heads and budget users in planning and budget allocating process to colleges and institutions for that plan.	14	11.3	45	36.3	28	22.6	34	27.4	3	2.4	2.73
4. Your office cash flow plan is coincide with Ministry of finance and economic development's /MoFED's/ cash release programme.	9	7.3	44	35.5	25	20.2	40	32.3	6	4.8	2.92
5. The university annual plan is revised and evaluated quarterly, semi-annually and annually based on adjusted budget report.	10	8.1	50	40.3	26	21	35	28.2	3	2.4	2.77

Table: 4.5 Respondents argument on plan

Source: Survey data, 2017

For question4 of plan 44 of the respondents with a percentage of 35.5 disagree and 9 of the respondents with the percentage of 7.3 strongly disagree and the mean score of 2.92 shows that most of the respondents response disagree. For question5 of plan 50 of the respondents with a percentage of 40.3 disagree and 10 of the respondents with the percentage of 8.1 strongly disagree and the mean score of 2.77 shows that most of the respondents' responses disagree on the proper preparation of plan in relation to program budget utilization. This indicated that preparation of plan in the university affects budget utilization and it needs further improvement of plan administration in order to achieve proper program budget utilization.

4.2.2.3 Commitment

Six Item questionnaires distributed to Bahir Dar university employees related to commitment parameter. Employee's mean responses for all Questions were 2.74 and the standard deviations were 0.74729. The mean responses of the employee to the six questions under commitment were

generally disagree, the six questions obtained mean responses of nearest to 2.00(average) for employee. The standard deviations of the responses were 74.73%, which indicates that the respondents' perceptions were differing to one another. The mean result implies that there is lack of commitment on program budget utilization in Bahir Dar university administrators and experts and have no a sufficient performance for commitment practices.

Questions of commitment (C1)	strongly disagree		Disagree		Neutral		Agree		strongly agree		Mean score
	frequency	percentage	frequency	percentage	frequency	percentage	frequency	percentage	frequency	percentage	
1. University's budget executives, users and experts decision concerning to programme budget administration is easy and fast.	13	10.5	57	46	19	15.3	33	26.6	2	1.6	2.63
2. There is no delay in approval of budget distribution to decentralized campuses of the university.	16	12.9	53	42.7	17	13.7	35	28.2	3	3.4	2.65
3. There is accountability and responsibility on accountants, budget experts and administrators of the university.	13	10.5	53	42.7	5	4	48	38.7	5	4	2.83
4. The management of our university are actively involved in evaluating and monitoring program budget utilization.	19	15.3	44	35.5	15	12.1	42	35.9	4	3.2	2.74
5. There is leadership commitment in supporting program budget utilization.	11	8.9	46	37.1	20	16.1	42	33.9	5	4	2.87
6. Adequate awareness forum, supervision and evaluation are undertaken by treasury ministry of finance and economic development /MoFED/ for budget administrators on budget utilization.	13	10.5	45	36.5	29	23.4	35	28.2	2	1.6	2.74

Table: 4.6 Respondents argument on commitment

Source: Survey data, 2017

Budget administrators and experts commitment is an important input for realistic and sound program budget utilization. From the information collected in the above table 4.6 for question1 of commitment 57 of the respondents with a percentage of 46.8 disagree and 13 of the respondents with the percentage of 10.5 strongly disagree and the mean score of 2.63 shows that most of the respondents' response disagree. For question2 of commitment 53 of the respondents with a percentage of 42.7 and 16 of the respondents with the percentage of 12.9 strongly disagree and the mean score of 2.65 shows that most of the respondents response disagree. For question3

of commitment 53 of the respondents with a percentage of 42.7 and 13 of the respondents with the percentage of 10.5 strongly disagree and the mean score of 2.83 shows that most of the respondents response disagree. For question4 of commitment 44 of the respondents with a percentage of 35.5 and 19 of the respondents with the percentage of 15.3 strongly disagree and the mean score of 2.74 shows that most of the respondents response disagree. For question5 of commitment 50 of the respondents with a percentage of 37.1 and 11of the respondents with the percentage of 8.9 strongly disagree and the mean score of 2.87 shows that most of the respondents response disagree. For question6 of commitment 45 of the respondents with a percentage of 36.5 and 13 of the respondents with the percentage of 10.5 were strongly disagree and the mean score of 2.74 shows that most of the respondents response disagree, on the proper preparation of plan in relation to program budget utilization. This indicated that commitment in the university affects budget utilization and it needs further improvement in order to achieve proper program budget utilization.

4.2.2.4 Structure

Four item questionnaires distributed to Bahir Dar university employee related to structure parameter. Employee's mean responses for all Questions were 2.60 and the standard deviations were 0.86774. The mean responses of the employee to the four questions under structure were generally disagree, the four questions obtained mean responses of nearest to 2.00(average) for employee. The standard deviations of the responses were 86.77%, which indicates that the respondents' perceptions were differing to one another. The mean result implies that there is no effect of structure on program budget utilization in Bahir Dar university of employees have no a sufficient performance for structure practices.

From the information collected in the above table 4.7 for question1 of structure 66 of the respondents with a percentage of 53.2 disagree and 25 of the respondents with the percentage of 20.2 strongly disagree and the mean score of 2.25 shows that most of the respondents' response disagree. For question2 of structure 61 of the respondents with a percentage of 49.2 disagree and 15 of the respondents with the percentage of 12.1 strongly disagree and the mean score of 2.59 shows that most of the respondents response disagree. For question3 of structure 58 of the respondents with a percentage of 46.8 disagree and 21 of the respondents with the percentage of 16.9 strongly disagree and the mean score of 2.48 shows that most of the respondents response disagree.

Questions of Structure (S)	strongly disagree		Disagree		Neutral		Agree		strongly agree		Mean score
	frequency	percentage	frequency	percentage	frequency	percentage	frequency	percentage	frequency	percentage	
1.The University's program budget allocation and utilization is decentralized up to department level.	25	20.2	66	53.2	13	10.5	17	13.7	3	2.7	2.25
2.Our university's Colleges, faculties, institutions and schools are organized based on their program budget utilization.	15	12.1	61	49.2	10	8.1	36	29.0	2	1.6	2.59
3.University's campus Plan and budget experts have clear hierarchy and immediate supervisor in budget controlling.	21	16.9	58	46.8	12	9.7	31	25	2	1.6	2.48
4.The relationship of budgeted departments and integrated of budget and expenditure system /IBEX/ software is suitable for budget utilization.	14	11.3	47	37.9	25	20.2	35	28.2	3	2.4	2.73

Table: 4.7 Respondents argument on structure

Source: Survey data, 2017

For question4 of structure 47 of the respondents with a percentage of 37.9 disagree and 14 of the respondents with the percentage of 11.3 were strongly disagree and the mean score of 2.73 shows that most of the respondents' response disagree on the proper preparation of structure in relation to program budget utilization. Even though structure in the descriptive statistics explained with more respondents as disagree on the proper structure of budget in the university, the regression result support it as proper.

4.2.2.5 Communication

Five item questionnaires distributed to Bahir Dar university employee related to communication parameter. Employee's mean responses for all Questions were 2.81 and the standard deviations were 0.71123.The mean responses of the employee to the five questions under communication were generally disagree, the five questions obtained mean responses of nearest to 2.00(average) for employee. The standard deviations of the responses were 71.12%, which indicates that the respondents' perceptions were differing to one another. The mean result implies that there is no effect of communication on program budget utilization in Bahir Dar university of employees have no a sufficient performance for communication practices.

Questions of communication (C2)	strongly disagree		Disagree		Neutral		Agree		strongly agree		Mean score
	frequency	percentage	frequency	percentage	frequency	percentage	frequency	percentage	frequency	percentage	
1. Information presented from top managements is clear and on time concerning to budget utilization.	16	12.9	53	42.7	23	18.5	31	25	1	0.8	2.58
2. There is participative and timely communication channel between all level of managements and experts.	13	10.5	47	37.9	23	18.5	41	31.1	0	0	2.74
3. For each budget users section of the university there is a room of allocating separate annual budget and reports.	10	8.1	37	29.8	22	17.7	54	43.5	1	0.8	2.99
4. There is timely distribution of information to all budget users on the revised directives of MoFED.	16	12.9	31	25	26	21	49	39.5	2	1.6	2.92
5. There is regular and periodic budget utilization reporting system from section heads to presidents and vice versa.	9	7.3	48	38.7	23	18.5	43	34.7	1	0.8	2.83

Table: 4.8 Respondents argument on communication

Source: Survey data, 2017

Upward and downward communication of budget administrators and experts with budget allocation, transfer, physical plan, committed budget and in general periodical reports, is an important input for realistic and sound program budget utilization. From the information collected in the above table 4.8 for question1 of communication 53 of the respondents with a percentage of 42.7 disagree and 16 of the respondents with the percentage of 12.9 strongly disagree and the mean score of 2.58 shows that most of the respondents' response disagree. For question2 of communication 47 of the respondents with a percentage of 37.9 disagree and 13 of the respondents with the percentage of 10.5 strongly disagree and the mean score of 2.74 shows that most of the respondents response disagree. For question3 of communication 37 of the respondents with a percentage of 29.8 disagree and 10 of the respondents with the percentage of 8.1 strongly disagree and the mean score of 2.99 shows that most of the respondents response disagree. For question4 of communication 31 of the respondents with a percentage of 25 disagree

and 16 of the respondents with the percentage of 12.9 strongly disagree and the mean score of 2.92 shows that most of the respondents response disagree. For question5 of communication 48 of the respondents with a percentage of 38.7 disagree and 9 of the respondents with the percentage of 7.3 were strongly disagree and the mean score of 2.83 shows that most of the respondents response disagree on the proper communication in relation to program budget utilization. This indicated that communication in the university affects budget utilization and it needs further improvement in order to achieve proper program budget utilization.

4.2.2.6 Competency

Five item questionnaires distributed to Bahir Dar university employee related to competency parameter. Employee's mean responses for all Questions were 2.5 and the standard deviations were 0.68602. The mean responses of the employee to the five questions under competency were generally disagree, the five questions obtained mean responses of nearest to 2.00(average) for employee. The standard deviations of the responses were 68.60%, which indicates that the respondents' perceptions were differing to one another. The mean result implies that there is no effect of competency on program budget utilization in Bahir Dar university of employees have no a sufficient competency practices.

Adequate knowledge, skill and training concerning to policies, rules, guidelines, and procedures of budget is an important input for realistic and sound program budget utilization. From the information collected in the table 4.9 for question1 of competency 43 of the respondents with a percentage of 34.7 disagree and 17 of the respondents with the percentage of 13.7 strongly disagree and the mean score of 2.69 shows that most of the respondents' response disagree. For question2 of competency 57 of the respondents with a percentage of 46 disagree and 22 of the respondents with the percentage of 17.7 strongly disagree and the mean score of 2.4 shows that most of the respondents response disagree. For question3 of competency 44 of the respondents with a percentage of 35.5 disagree and 22 of the respondents with the percentage of 17.7 strongly disagree and the mean score of 2.53 shows that most of the respondents response disagree. For question4 of competency 50 of the respondents with a percentage of 40.3 disagree and 18 of the respondents with the percentage of 14.5 strongly disagree and the mean score of 2.53 shows that most of the respondents response disagree.

Competency (C3)	strongly disagree		Disagree		Neutral		Agree		strongly agree		Mean score
	frequency	percentage	frequency	percentage	frequency	percentage	frequency	percentage	frequency	percentage	
1. Program budget administrators and experts of the university have adequate knowledge in governments plan and budget manuals.	17	13.7	43	34.7	28	22.6	33	26.6	3	2.7	2.69
2. The university has periodic training system for previous and newly assigned managers and experts on budget utilization.	22	17.7	57	46	22	17.7	19	15.3	4	3.2	2.4
3. Program Budget administrators and experts of the university have sufficient knowledge about program budget implementation and measurement.	22	17.7	44	35.5	31	25	24	19	3	2.4	2.53
4. Budget implementers of the university have assigned based on their professional qualifications and work experience.	18	14.5	50	40.3	31	25	22	17.7	3	2.4	2.53
5. Officers involved on budgetary process are adequately consulted on development of policies and guidelines	20	16.1	55	44.4	25	20.2	23	18.5	1	0.8	2.44

Table: 4.9 Respondents argument on competency

Source: Survey data, 2017

For question5 of competency 55 of the respondents with a percentage of 44.4 disagree and 20 of the respondents with the percentage of 16.1 were strongly disagree and the mean score of 2.44 shows that most of the respondents response disagree on the proper competency in relation to program budget utilization. This indicated that competency in the university affects budget utilization and it needs further improvement in order to achieve proper program budget utilization.

4.3. Reliability and Validity test

4.3.1. Validity test

According to Leedy et al. (2010), validity of a measurement instrument is defined as the extent to which the instrument measures what it is actually intended to measure. Moreover, to insure the validity and reliability of the instrument the researcher took and adapted questionnaires from scholarly journals and adjustments were made to be understood by respondents. Therefore, the researcher believed that the adapted instruments have high level of validity and reliability

4.3.2. Reliability Tests of the Instrument

Pilot study (preliminary test) was carried out using convenient sampling method in the Bahir Dar University having the same characteristics with the participants of the main study. The advantage of doing a pilot study include; it helps to detect potential defects in the measurement procedures, it assists in identifying ambiguous items, and it allows the researcher to become aware of non verbal behavior that may occur due to the wording question. Therefore, the researcher tried to insures the reliability and validity of the questionnaire. To measure the reliability of the questionnaire, the researcher used cronbach's alpha reliability test from 124 university employees' response. According to different statistic book (Gujjirati) a reliability coefficient equal and exceeding 0.6 for any test or scale was acceptable reliability coefficient. Therefore, as we can see the (cronbach's alpha) indicates that the questionnaire administered in this study, six items are reliable and the value of them >0.7 .

reliability analysis

variables	No. of items	cronbach's alpha
Plan	5	.704
Commitment	6	.762
Structure	4	.702
Communication	5	.707
Competency	5	.714
Program budget utilization	5	.707

Table: 4.10 reliability analysis

Source: Source: Survey data, 2017

From the above table 4.10, it is seen that the reliability value was estimated to be $\alpha = 0.702$ - 0.762 between the scale. If the above calculated reliability values are compared with the standard value alpha of 0.7 advocated by Cronbach's, then it can be safely assumed that the scales used by the research are reliable for data analysis.

4.4 Correlation analysis

Table: 4.11 Correlation between the independent variables (Plan (P), Commitment (C_1), Structure (S), Communication (C_2), and competency (C_3)) with dependent variable (program budget utilization).

		Correlations					
		1	2	3	4	5	6
PB	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	124					
P	Pearson Correlation	.632**	1				
	Sig. (2-tailed)	.000					
	N	124	124				
C1	Pearson Correlation	.690**	.402**	1			
	Sig. (2-tailed)	.000	.000				
	N	124	124	124			
S	Pearson Correlation	-.376**	.217*	-.377**	1		
	Sig. (2-tailed)	.120	.025	.050			
	N	124	124	124	124		
C2	Pearson Correlation	.666**	.504**	.596**	.394**	1	
	Sig. (2-tailed)	.000	.000	.000	.000		
	N	124	124	124	124	124	
C3	Pearson Correlation	.707**	.438**	.536**	.343**	.525**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	124	124	124	124	124	124

Table: 4.11

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

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

Source: Survey data, 2017

4.4.1. Correlation between Plan and program budget utilization

As indicated in Table 4.11 the statistical result which equals 0.000 is well above the significance value of 0.05. Therefore, there is no evidence to reject the hypothesis1 “there is a positive relationship between plan and program budget utilization in Bahir Dar university” in favor of hypothesis1 was supported. Accordingly, it is evident that there is statistically significant relationship between the independent variable (plan) and the dependent variable (program budget utilization). The calculated correlation coefficient 0.632 shows that there was a strong positive relationship between the plan and program budget utilization in Bahir Dar university, as correlation coefficients between .00 and .40 are considered weak (Diamantopoulos et al., 2000). However, the correlation coefficients are more than .40 which is considered as strong correlations.

4.4. 2. Correlation between commitment and program budget utilization

As indicated in Table 4.11 the statistical result which equals 0.000 is well above the significance value of 0.05. Therefore, there is no evidence to reject the hypothesis2 “there is a positive relationship between plan and program budget utilization in Bahir Dar university” in favor of hypothesis2 was supported. Accordingly, it is evident that there is statistically significant relationship between the independent variable (commitment) and the dependent variable (program budget utilization). The calculated correlation coefficient 0.690 shows that there was a strong positive relationship between the commitment and program budget utilization in Bahir Dar university, as correlation coefficients between .00 and .40 are considered weak (Diamantopoulos et al., 2000). However, the correlation coefficients are more than .40 which is considered as strong correlations.

4.4. 3. Correlation between structure and program budget utilization

As indicated in Table 4.11 the statistical result which equals 0.120 is above the significance value of 0.05. Therefore, there is evidence to reject the hypothesis3 “there is a negative relationship between structure and program budget utilization in Bahir Dar university” in favor of hypothesis3 was rejected. Accordingly, it is evident that there is statistically insignificant relationship between the independent variable (structure) and the dependent variable (program budget utilization). The calculated correlation coefficient -0.376 shows that there was a negative relationship between the structure and program budget utilization in Bahir Dar university, as

correlation coefficients between .00 and .40 are considered weak (Diamantopoulos et al., 2000). Hence, the correlation coefficients are less than .40 which is considered as weak correlations.

4.4. 4. Correlation between communication and program budget utilization

As indicated in Table 4.11 the statistical result which equals 0.000 is well above the significance value of 0.05. Therefore, there is no evidence to reject the hypothesis4 “there is a positive relationship between communication and program budget utilization in Bahir Dar university” in favor of hypothesis4 was supported. Accordingly, it is evident that there is statistically significant relationship between the independent variable (communication) and the dependent variable (program budget utilization). The calculated correlation coefficient 0.666 shows that there was a strong positive relationship between the communication and program budget utilization in Bahir Dar university, as correlation coefficients between .00 and .40 are considered weak (Diamantopoulos et al., 2000). However, the correlation coefficients are more than .40 which is considered as strong correlations.

4.4. 5. Correlation between competency and program budget utilization

As indicated in Table 4.11 the statistical result which equals 0.000 is well above the significance value of 0.05. Therefore, there is no evidence to reject the hypothesis5 “there is a positive relationship between competency and program budget utilization in Bahir Dar university” in favor of hypothesis5 was supported. Accordingly, it is evident that there is statistically significant relationship between the independent variable (competency) and the dependent variable (program budget utilization). The calculated correlation coefficient 0.707 shows that there was a very strong positive relationship between the competency and program budget utilization in Bahir Dar university, as correlation coefficients between .00 and .40 are considered weak (Diamantopoulos et al., 2000). However, the correlation coefficients are more than .40 which is considered as very strong correlations.

4.5 Normality test

Distribution of the data is another issue in this research, whether it is normal/or not. To check the distribution of score is normal, we need to look at the values of Skewness in the SPSS output. Positive value of Skewness indicates too many low scores in the distribution, whereas negative values indicate a build-up of high scores (Field, 2009). Skewness measures the degree to which cases are clustered towards one end of an asymmetry distribution. In general, the further the

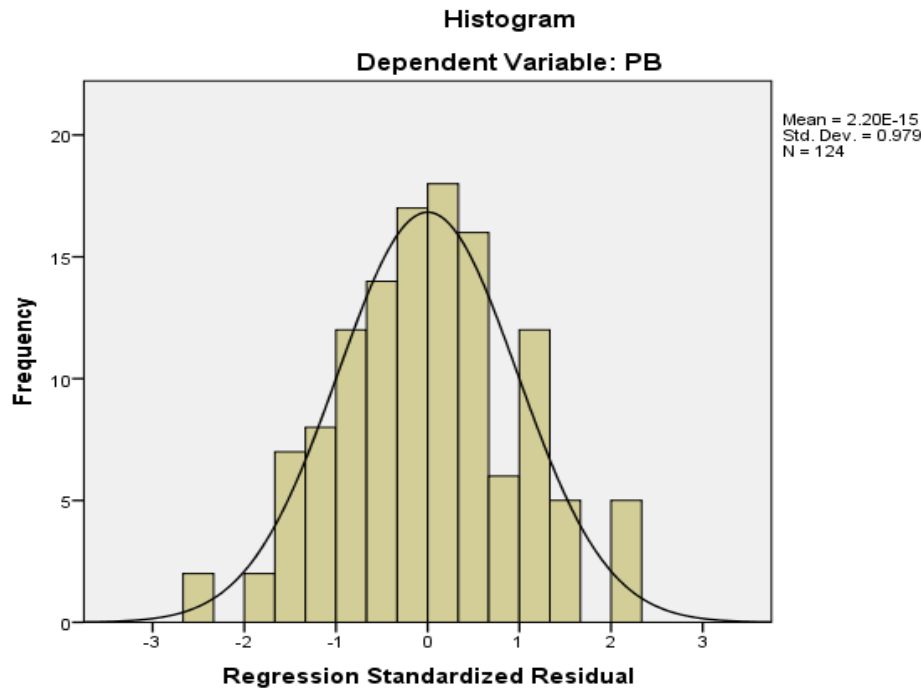
value of skewness is from zero, the more likely it is that the data are not normally distributed (Field, 2009). In a normal distribution, the values of Skewness are below 0. If a distribution has values of skew above 0 then this indicates a deviation from normal (Field, 2009). As we have seen from the following table 4.12, the Skewness approaches are below Zero and it is almost normal. All variables were found to be normal.

Program budget utilization		Statistics			
	P	C1	S	C2	C3
Skewness	-.076	-.177	-1.157	-.138	-.114
Std. Error of Skewness	.217	.217	.217	.217	.217

Table: 4.12 normality analysis

Source Survey data, 2017

Frequency of data distributions come in many different shapes and sizes. It is quite important, therefore, to have some general descriptions for common types of distributions. In an ideal world our data would be distributed symmetrically around the centre of all scores. As such, if we drew a vertical line through the centre of the distribution then it should look the same on both sides. This is known as a *normal distribution* and is characterized by the bell-shaped curve. This shape basically implies that the majority of scores lie around the centre of the distribution (so the largest bars on the histogram are all around the central value).



Graph 4.2 **Histogram /Normality test/**

Source: Survey data, 2017

Besides to this graph is also another method to test whether the error terms or residuals were correctly distributed over the model or not. These graph (4.1) and table (4.12) indicate that, the data distribution is normal. Because, the coefficient of Skewness data value is between -3 and 3 and kurtosis value is not far from zero. Histogram is an effective graphical technique for showing both the Skewness and kurtosis of data set. It has been used to test the normality distribution of residual. This shape basically implies that the majority of scores lie around the centre of the distribution. Thus it fulfills the assumption of multiple regressions.

4.5. Heteroscedasticity test

If the residuals of the regression have systematically changing variability over the sample, that is a sign of heteroscedasticity. If errors do not have a constant variance (not homoscedastic), they are said to be Heteroscedastic (Brooks, 2008), as cited in, Jemebere Hamebisa Gelete (2014). Heteroscedasticity makes estimators to be not efficient because the estimated variances and covariance of the coefficients are biased and inconsistent. Thus, the tests of hypotheses are no longer valid. The problem of heteroscedasticity is happen if the 'P' value is less than 0.05 i.e. ($P < 0.05$). Considering the stata value in this study is $\text{prob.} > 0.05$, $0.5726 > 0.05$.

Breusch-Pagan / Cook-Weisberg test for heteroscedasticity
Ho: Constant variance
Variables: fitted values of PROGBU
chi2(1) = 0.32
Prob. > chi2 = 0.5726

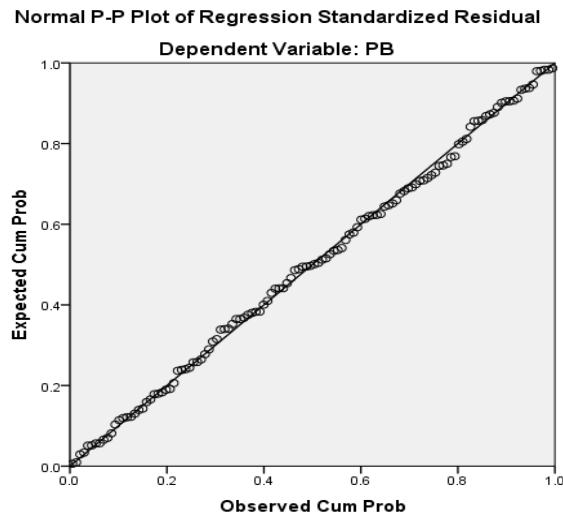
Table: 4.13 Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Source: Survey data, 2017

The table 4.13 showed that the value of $\text{prob} > \chi^2$ is significant at 0.05 of given level of significance $0.5726 > 0.05$. Therefore, there is no problem of heteroscedasticity.

4.7 linearity test

The best test for normally distributed errors is a normal probability plot or normal quartile plot of the residuals. These are plots of the fractals of error distribution versus the fractals of normal distribution having the same mean and variance. If the distribution is normal, the points on such a plot should fall close to the diagonal reference line.



Graph 4.3 **linearity test**

Source: Survey data, 2017

A bow shaped pattern of deviations from the diagonal indicates that the residuals have excessive Skewness (i.e. they are not symmetrically distributed). With too many large errors in one direction). An ‘S’ shaped pattern of deviations indicates that the residuals excessive kurtosis i.e. there are either too many or too few large errors in both directions. Sometimes the problem is revealed to be that there are a few data points on one or both ends that deviate significantly from the reference line in which case they should get close attention. Therefore, a plot should fall close to the diagonal reference line. Based on this information when we see the p-p plot graph it fulfills the assumption of regressions.

4.8 Multi-co linearity

Multi-co linearity exists when there is a strong correlation between two or more predictors in a regression model. Multi-co linearity poses a problem only for multiple regressions because it involves more than two predictors. Perfect Co linearity exists when at least one predictor is a Perfect linear combination of the others. According to different statistical books, one way of identifying multi co linearity is to scan the correlation matrix of all of the predictor variables and see if any correlate very highly (correlation of above 0.80 or 0.90) Field (2000).

Another method is to produce a Co linearity diagnostics with the use of SPSS, and one of which is the variance inflating factor (VIF). The VIF indicates whether a predictor has strong linear relationship with the other predictor(s). Although there are no hard and fast rules about what value of the VIF should be a cause for concern, Field (2000) suggests that value of 10 is good value at which to worry. Field (2000), and suggest that if the average VIF is greater than 10, then multi co linearity may be biasing the regression model. Related to the VIF is the tolerance statistics, which is a reciprocal of VIF ($1/VIF$). Such value below 1 is worthy of concern. Considering the regression model for this study correlation matrix of all of the predictor variables less than or equal to 0.80 or 0.90 and the tolerance statistics values are all below 1 (see tables 4.16) as such no multi co linearity is observed in this model.

4.9 Autocorrelations

Autocorrelation is adjacent residuals of any two observations not being independent of each other or correlated. For any two observations the residual terms should be uncorrelated (or independent). This eventually is sometimes described as a lack of autocorrelation. This assumption can be tested with the Durbin-Watson test, which tests for social correlation between errors. Specifically, it tests whether adjacent residuals are uncorrelated. The test statistics for this can vary between 0 and 4 with a value of 2 meaning that the residuals are uncorrelated (Field, 2009). In our model the value of the test is closer to 2 (2.0). So it can be safely assumed that there is no problem of autocorrelation (see tables 4.14).

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.856 ^a	.733	.722	.35816	2.066

Table:4.14, Autocorrelation Test (Durbin-Watson)

a. Predictors: (Constant), C3, S, P, C1, C2

b. Dependent Variable: PB

Source: Survey data, 2017

4.10 Multiple regression analysis

In this study, multiple regression analysis was carried out to get the predictive value of the constructs considered. Since the model is developed in such a way that each construct is being

affected by other constructs, it is necessary to carry out a separate regression analysis against each variable which are considered to be affected by other variables. This was basically made to determine the linear combination of the constructs.

Regression of program budget utilization (PB), plan (P), commitment (C1), structure (S), communication (C2), and competency (C3).

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	41.559	5	8.312	64.795	.000 ^a
	Residual	15.137	118	.128		
	Total	56.695	123			

Table:4.15

a. Dependent Variable: PB

b. Predictors: (Constant), C3, S, P, C1, C2

Source: Survey data, 2017

Coefficients ^a								
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.099	.170		.585	.560		
	P	.293	.060	.280	4.921	.000	.700	1.429
	C1	.264	.058	.290	4.569	.000	.560	1.785
	S	-.020	.042	-.025	-.473	.637	.801	1.248
	C2	.160	.063	.168	2.533	.013	.515	1.942
	C3	.328	.060	.332	5.453	.000	.611	1.635

Table:4.16

a. Dependent Variable: PB

Source: Survey data, 2017

From Table 4.14, it can be seen that the multiple R(correlation) value of 0.856(85.6%) indicates a highly positive relationship between the dependent and independent variables and R Square value for the model showed that 73.3% of the dependent variable in the model can be predicted by the independent variables. The remaining 26.7% of the dependent variable is explained by other variables which are not depicted in the model. Moreover, adjusted R square value for the model shows that 72.2% of goodness of fit of the model is moderate.

From the above table 4.15 presents the ANOVA report on the general significance of the model. As **p** is less than 0.05, the model is significant. Thus, the combination of the independent variables (plan (P), commitment (C1), structure (S), communication (C2), and competency (C3) significantly predicts the dependent variable (program budget utilization) ($F=64.795$; $p < 0.05$).

Table: 4.16 shows the Beta Coefficients that present the contributions or positive or negative relationship of each variable to the model. The **t** and **p** values showed the influence of the independent variables on the dependent variable. From this, it is clear that the competency and plan had the highest affecting on program budget utilization with comparing commitment, structure, and communication constructs. According to coefficient results, all predictors, except structure are positively and significantly related to dependent variables however structure is negatively and insignificantly related to dependent variables. Thus, the model for predicting perceived program budget utilization becomes:

$$PB = \alpha + \beta_1 P + \beta_2 C_1 + \beta_3 S + \beta_4 C_2 + \beta_5 C_3 + \epsilon$$

$$PB = 0.099 + 0.293p + 0.264c_1 - 0.020s + 0.160c_2 + 0.328c_3 + \epsilon$$

Where: PB= program budget utilization,

P= plan,

C1= commitment,

S= structure,

C2= communication,

C3= competency.

The *b*-values (beta coefficient) tell us about the relationship between the outcome and each predictor. If the value is positive we can tell that there is a positive relationship between the predictor and the outcome, whereas a negative coefficient represents a negative relationship. For these data all predictors, except structure have positive *b*-values indicating positive relationships. So, there is a positive relationship between the predictors (plan, commitment, communication and competency) and an outcome (program budget utilization) since the value of beta coefficient is positive. As plan, commitment, communication and competency is good, program budget utilization is also improved; whereas, structure has a negative *b*-values indicating negative relationships to the outcome. As structure is good, program budget utilization is not improved.

4.11 Discussion of results

4.11.1 Plan

H1:Ha1The results of multiple regressions, as presented in table 4.16 above, revealed that plan has a positive and significant influence on program budget utilization with a beta value (beta = .293), at 95% confidence level ($p, .000 < 0.05$). Therefore, the researcher may accept the hypothesis1 and it is accepted that, plan has a positive and significant influence on program budget utilization. Based on this study plan must be prepared based on reliable data of services and goods need, participative and prioritize activities included in the plan up on MoFED's ceiling budget for the university, debated with managers of the university before approval plans bring proper program budget utilization.

The result is consistent with prior studies which argue that inappropriate plan i.e. physical plan that prepare without reliable data affects program budget utilization and it is causes of under and over utilization of program budget. (Ketema Muluneh, (2015), Dejene Tafa And Semeneh Bessie, (2016)).

4.11.2 Commitment

H2: Ha1commitment will have a positive and significant influence on program budget utilization.

The results of table 4.16 showed that standardized coefficient beta and p value of reliability were positive and significant (beta = 0. 264, $p, .000 < 0.05$). Thus, the researcher may accept the hypothesis2 and it is accepted that, commitment has a positive and significant influence on program budget utilization. In addition fast and timely decision of administrators and experts, initiative budget administration, implement accountability and responsively, controlling, evaluating and proper implementation of budget bring effective and efficient program budget utilization.

The result is consistent with prior studies which argue that managements and experts commitment influences program budget utilization and it is also causes of under and over utilization of program budget in the university, (Kenneth Odour Adongo, (2013); Dejene Tafa And Semeneh Bessie, (2016)).

4.11.3. Structure

H3: Ha₁ Structure will have a positive and significant influence on program budget utilization.

As shown in table 4.16, p-value is insignificant ($p, 0.637 > 0.05$), and the beta value of structure was negative ($\beta = -0.020$). Therefore, the researcher may reject the hypothesis3 and structure has a negative and insignificant influence on program budget utilization. This result is Inconsistent with previous studies of (Christine Kajuju Kirimi, (2012), Joaquín Sevilla, (2005) and Dejene Tafa And Semeneh Bessie, (2016)). All of the scholars found that structure is influenced budget utilization when it is not well decentralized.

4.11.4 Communication

H4: Ha₁ Communication will have a positive and significant influence on program budget utilization.

Table 4.16 further shows that, communication has a positive and significant influence on program budget utilization with a beta value ($\beta=0.160$), at 95% confidence level ($p, 0.013<0.05$). Therefore, the researcher may accept the hypothesis4 and communication practice has a positive and significant influence on program budget utilization. Both upward and downward report, periodical discussion and revision about the status of budget, using IT for managing budget, addressing new directives to each administrators and experts timely, develop reporting system through the university monthly, quarterly, semiannually and annually improve budget utilization.

The study supports and consistent with the finding revealed by Lewis, (2007); Ketema Muluneh, (2015) and Dejene Tafa and Semeneh Bessie, (2016)), of communication is influential factor of program budget

4.11.5. Competency

H5: Ha₁ Competency will have a positive and significant influence on program budget utilization.

Table 4.16 further shows that, competency has a positive and significant influence on program budget utilization with a beta value ($\beta = 0.328$), at 95% confidence level ($p, 0.000 < 0.05$).

Therefore, the researcher may accept the hypothesis5 and competency practice has a positive and significant influence on program budget utilization. Knowledge, skill, training and experience of budget administrators influences on program budget utilization of the public organization.

The result is consistent with prior studies which argue that managements and experts knowledge, skill and experience influences program budget utilization and it is also causes of under and over utilization of program budget in the university, (Ketema Muluneh, (2015) and Dejene Tafa And Semeneh Bessie, (2016)).

In overall from the findings of this study, except structure, researcher found that all of factors of program budget utilization practices have positive influence on program budget utilization. Out of the five factors of program budget utilization practices four dimensions (plan, commitment, communication and competency) have positive and significant influence on program budget utilization. Moreover we can conclude 73% of the independent variables have significant influence on program budget utilization of Bahir Dar University.

Lastly, in both models competency has a dominant influence on perceived program budget utilization than the plan, commitment, structure, and communication. It contributes 32.8 % (29.3% contribution of plan, 26.4% contribution of commitment, 2.0% contribution of structure, and 16.0% contribution of communication) for program budget utilization. Hence, it provides strong support for hypothesis 5.

Table 4.17 Summary of hypothesis testing

Hypothesis	Tool	Result
H1: Ha₁ Plan has positive and significant influence on program budget utilization.	Regression	supported
H2: Ha₁ commitment has positive and significant influence on program budget utilization.	Regression	supported
H3: Ha₁ structure has positive and significant influence on program budget utilization.	Regression	Not supported
H4: Ha₁ Communication has positive and significant influence on program budget utilization.	Regression	supported
H5: Ha₁ Competency has positive and significant influence on program budget utilization.	Regression	supported

Source: multiple regression, 2017

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1. Introduction

In this chapter a summary of the study findings is covered, conclusions of the study, recommendations of the study, as well as suggestions for further research.

5.2 Summary

The purpose of this study was to examine factors that affect program budget utilization in Bahir Dar University of Ethiopian public university by using statistical analysis; both descriptive and inferential statistics. The research instruments were survey questionnaires developed with stratified random sampling method of applicable constructs. A total of 128 copies of questionnaires were distributed to employees of Bahir Dar University. However, only 124 copies were found to be returned and used for analysis. By using reliability 30 items were tested and which have a good loading value and reliability scale was treated for analysis. Since each construct was affected by other constructs, regression analysis was conducted by the models, using program budget utilization as dependent variables, this was basically done to get the best linear combinations of the constructs as well as to get predictive value of individual predictors for testing the hypotheses proposed. The study applied quantitative approach to describe and evaluate the factors that affect program budget utilization. In chapter four, the primary data has been analyzed and interpreted in relation with the statement of the problem and objectives of the study. Descriptive statistics was used to assess the factors of program budget utilization. Results from the regression analysis of ANOVA show that factors that affect program budget utilization in Bahir Dar University of Ethiopian public university is significantly related to program budget utilization. Except structure, correlation analysis further shows that there is a strong positive relationship between factors of program budget utilization and program budget utilization.

5.3 Conclusions

The results of the study enable us to conclude that plan, commitment, communication, as well as competency as a linear combination positive and significantly influence on program budget utilization in Bahir Dar University of Ethiopian public university. However, as individual predictors: structure is not positive and significant influence on program budget utilization.

This study required to ascertain the factors of program budget utilization and factors of program budget utilization in Bahir Dar University of Ethiopian public university. Except structure, the findings from the study show that there is a strong positive and significant relationship between factors of program budget utilization (plan, commitment, communication, and competency) and program budget utilization. This implies that the University should properly apply these factors in order to prevent their negative influence on their program budget utilization.

The study also intended at establishing the degree to which factors techniques have been applied by Bahir Dar University of Ethiopian public university. The study findings show that plan, commitment, communication, and competency have the greatest level of influencing and structure had the least degree of influencing.

Overall most of the factors were well influencing in the University that have adopted factors of program budget utilization. The study's other objective was to conclude the structure that is not influenced by program budget utilization of Bahir Dar University. Structure is low in explaining the model of program budget utilization. Competency is a dominant factor in predicting program budget utilization whereas; plan, commitment, and communication are predicted as medium the outcome. Thus, competency; in comparison to plan, commitment, structure and communication is greater influence on program budget utilization.

5.4 Recommendations

On the basis of the finding derived and conclusions of this study the following recommendations are proposed.

- ❖ The top management and experts of the University should give great attention for proper program budget utilization and its influencing factors of planning, commitment, communication and competency of experts and budget administrators.
- ❖ The University should be prepared the annual physical plan based on university's annual budget ceiling given by MoFED, detail assessed and reliable data, programs and objectives of the university and finally approved by the board and the president with debating to program leader vice presidents.
- ❖ Perform timely decision, give services with self-initiative, develop accountability and responsibility and be committed when and how to utilize program budget as per the directives of MoFED in order to bring proper budget utilization.

- ❖ Communicate information through meeting, IT, monthly, quarterly, semi-annually and annually upward and downward report concerning to budget in order to bring proper program budget utilization.
- ❖ Based on the study competency of managers and experts have dominant significant influential factor on program budget utilization, therefore university executives should provide periodical training in governments plan and budget directives as well as newly appointed administrators and experts in order to achieve proper program budget utilization.

As it was explained plan, commitment, communication, and competency play significant role on program budget utilization; Bahir Dar University should emphasis on those predictors, moreover the university are better to continue a good performance of program budget utilization and minimizes its challenge.

5.5 Future Research Implications

This study focused on factors affecting program budget utilization of Ethiopian public University of Bahir Dar University only. The researcher proposes that a more detailed study be carried out on the Ethiopian public Universities program budget utilization considered different universities and more data collection methods using collection of primary and secondary data to investigate input and output of programs.

The results will have important implications and is believed to be helpful for governmental sectors budget administration in general for Ethiopian public Universities and in particular for BahirDar University. While this study has revealed some interesting results, one should be careful of its limitations related essentially to its sample size and scope of the study.

Although the researcher believes that this study is deep, it is still believed that it can be further extended to include more respondents from externals to make it more realistic and reliable. Finally, due to different factors I couldn't touch other dimensions of program budget utilization. Thus, further research needs to contain more desirable dimensions, in order to gain better insight.

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APPENDIX 1 Survey Questionnaire

BAHIR DAR UNIVERSITY
COLLEGE OF BUSINESS AND ECONOMICS POST GRADUATE
STUDIES PROGRAM DEPARTMENT OF ACCOUNTING AND FINANCE

Dear Respondents:-

First of all, I would like to thank you for your participation in the study by sacrificing your precious time. The purpose of this questionnaire is to conduct a study on the factors that affect programme budget utilization in Ethiopian Public Universities in the case of Bahir Dar University for the fulfilment of Masters of Accounting and Finance (MSC) and to suggest some recommendations based on findings. I kindly request you to respond the answer honestly for the qualities of the study based on the instruction by putting “X” sign in the given space.

Part I: Personal information

1.1 Sex

1. male ☐
2. Female ☐

1.2 Age

1. below 25 years ☐
2. from 25-35 years ☐
3. from 36-45 years ☐
4. above 45 years ☐

- 1.3 Educational status 12th grade ☐ Certificate ☐ Diploma ☐
 Bachelor degree ☐ Master’s degree ☐ PhD ☐

- 1.4 Work experience Below 2 year ☐ 2-4 years ☐ 5-7 years ☐
 above 7 years ☐

- 1.5 Field of study Accounting ☐ Management ☐ Economics ☐
 Logistics & supply chain mgt ☐ Marketing ☐ others ☐

Part II. Beside each of the question presented below, please answer with one of the following responses by putting “X” sign in the numbers column from ① -⑤ based on your agreement.
(strongly disagree= ①, Disagree=②, Neutral=③, Agree=④, strongly agree=⑤)

Q. No	Questions	Alternatives response				
		Strongly disagree	disAgree	Neutral	agree	Strongly agree
	<i>Plan</i>	1	2	3	4	5
1	I think your office /college/ approved annual physical plan obtain equal amount of annual program budget from the university.					
2	University's approved annual plan prepares based on reliable and accurate data /practically services rendered and goods received during the year./					
3	There is full involvement of heads and budget users in planning and budget allocating process to colleges and institutions for that plan.					
4	Your office cash flow plan is coincide with Ministry of finance and economic development's /MoFED's/ cash release programme.					
5	The university annual plan is revised and evaluated quarterly, semi-annually and annually based on adjusted budget report.					
	<i>commitment</i>					
6	University's budget executives, users and experts decision concerning to program budget administration is easy and fast.					
7	There is no delay in approval of budget distribution to decentralized campuses of the university.					
8	There is accountability and responsibility on accountants, budget experts and administrators of the university.					
9	The management of our university are actively involved in evaluating and monitoring program budget utilization.					
10	There is leadership commitment in supporting program budget utilization.					
11	Adequate awareness forum, supervision and evaluation are undertaken by treasury ministry of finance and economic development /MoFED/ for budget administrators on budget utilization.					

	<i>structure</i>					
12	The University's program budget allocation and utilization is decentralized up to department level.					
13	Our university's Colleges, faculties, institutions and schools are organized based on their program budget utilization.					
14	University's campus Plan and budget experts have clear hierarchy and immediate supervisor in budget controlling.					
15	The relationship of budgeted departments and integrated of budget and expenditure system /IBEX/ soft ware is suitable for budget utilization.					
	<i>communication</i>					
16	Information presented from top managements is clear and on time concerning to budget utilization.					
17	There is participative and timely communication channel between all level of managements, plan and budget experts and finance departments about budget utilization.					
18	For each budget users section of the university there is a room of allocating separate annual budget and reporting it to the plan and budget directorate or to the managements.					
19	There is timely distribution of information to all budget users on the revised directives of MoFED concerning to program budget utilization.					
20	There is regular and periodic budget utilization reporting system from section heads to presidents and feedback from presidents to section heads of the university.					
	<i>competency</i>					
21	Program budget administrators and experts of the university have adequate knowledge in governments plan and budget manuals (policy, regulation and legislation) of budget utilization.					
22	The university has periodic training system for previous and newly					

	assigned managers and experts on budget utilization.					
23	Program Budget administrators and experts of the university have sufficient knowledge about program budget implementation and measurement.					
24	Budget implementers of the university have assigned based on their professional qualifications and work experience.					
25	Officers involved on budgetary process are adequately consulted on development of policies and guidelines.					
	Program budget utilization					
26	Higher level managements reviewed the status of program budget utilization monthly, quarterly, semi- annually and annually by participating budget users/administrators.					
27	The management support experts by providing access to the tools and set training to bring proper budget utilization in the university.					
28	The university's finance and budget experts and budget user managements are properly administered and make timely summary about budget utilization.					
29	There is strong focus in the university on achieving results and managing performance of program budget utilization.					
30	Your office has the practice of regular follow up on program budget utilization.					

Source: Adapted from Yemesrach Fenta and Mulugeta Abebe, (2012), Dejene Tafa and Smeneh Bessie, (2016), Charles N. Minjire¹ and Kennedy Ogollah², (2017)