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**AN INVESTIGATION INTO THE LIBYAN GOVERNMENT POLICIES
RELEVANT TO FINANCIAL RESOURCE ALLOCATION FOR PUBLIC
UNIVERSITIES: AN EXPLORATORY STUDY.**

Anwr Abdulkarim Elbasir

**A Thesis Submitted to the University of Huddersfield
in Partial Fulfilment of the Requirements for the
Degree of Doctor of Philosophy**

**The University of Huddersfield
Huddersfield Business School**

**Department of Accountancy,
Finance and Economics**

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Abstract

Higher education plays an important role in economic growth, job creation and export performance. It also has implications for research and knowledge creation. However, there is a notable lack of studies conducted in MENA, and other Arab countries. In particular, there is a dearth of research in the context of Libya, which has been witnessed the massive transformation that in terms of its political, economic, and institutional environment; and, there is a need to explore and understand the current applied system of higher education funding.

Therefore, this study aims to investigate the Libyan government's policies for the provision of funding to higher education. In addition, this study investigates and explores the obstacles and challenges experienced by the higher education sector in recent years. Furthermore, the study identifies the government policies, institutions and other factors influencing the decisions regarding the financial allocations to public universities.

This study adopts a qualitative approach to collect data using semi-structured interviews and document analysis. The data was analysed using the thematic analysis technique following the length guidelines of Braun and Clarke (2006).

The findings suggest that the operations of Libyan public universities are not only contingent upon government funding but also on the exploitation of universities' resources. Besides, the findings reveal that there are certain factors behind the low levels of universities' resources, such as legislation, government restrictions, lack of government encouragement and seriousness for universities to improve their income. The study also identifies various motivational factors behind government funding decisions. Furthermore, the findings confirm that, for universities and government agencies alike, economic (that is, resources available, government priorities, and instability of economic and political status in Libya), social (tribal as well as personal influence) and political factors (i.e., political clout, government and legislations restrictions) influence the distribution of resources.

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Dedication

I wish to dedicate this research to:

*The Soul of My Father Abdulkarim Elbasir, may Allah's mercy
and forgiveness be upon his soul.*

My Mother who always prayed for me and gave me confidence.

To my beloved family:

*My Wife who encouraged and supported me through the
journey despite the ups and downs.*

My sweet Kids:

Anas

Alaa

Ouais

Elyas

*To my Brother, Sister, Cousins and Friends who were always in touch
and kept the distant close.*

List of abbreviations

AfDB	African Development Bank
BERA	British Educational Research Association
CHEPS	Centre for Higher Education Policy Studies
EC	European Commission
EU	European Union
EUA	European University Association
EUDIS	European Universities Diversifying Income Streams
GDP	Gross Domestic Product
GF	Government- Finance ministry member
GL	Legislature Authority Member
GP	government- Planning ministry member
HDI	Human Development Index
HE	Higher Education
HEFCE	Higher Education Funding Council for England
HEIs	Higher education institutions
IMF	International Monetary Fund
KIE	Knowledge-Intensive Employment
LOOPS	Libyan Organization Of Policies and Strategies
LYD	Libyan Dinar
MENA	Middle East and North Africa
NCQAE	National Center for Quality Assurance Educational Institutions

NCTE	National Council for Tertiary Education
NUC	National Universities Commission
OECD	The Organization for Economic Cooperation and Development
RDT	Resource Dependency Theory
REF	Research Excellence Framework
SHEEO	State Higher Education Executive Officers
U	University
UK	United Kingdom
UNDP	United Nations Development Programme
UNECA	Economic Commission for Africa
UNESCO	The United Nations Educational, Scientific and Cultural Organization
USA	United States of America

Chapter 1 - Introduction

1.1 Overview

This opening chapter presents an overview of the thesis. It presents a brief summary of higher education funding, the Libyan system of higher education, and higher education funding in the Libyan context. This chapter also provides a problem statement, and the research aim and objectives. The research methodology will then be briefly described, including its ethical considerations. Finally, the chapter closes by describing the organisation of the thesis with the aid of a flow diagram, and lastly gives the chapter's conclusions.

1.2 Research background

1.2.1 Higher education funding

Around the world, the higher education sector is considered to be a major contributor to the development of skills, to have a positive impact on employment and export, besides also financially helping to boost overall economic development; thus, many countries have been pushing to expand this sector. The underlying view is that higher education is seen as the source of innovation that will improve skills and human capital, and enhance the economic position of individuals and the economic growth of nations (Hanushek, 2016; Holmes & Mayhew, 2016; Pinheiro & Pillay, 2016). Overall, the economic benefits received from higher education are linked with the availability of funds and internal savings, on the one hand, and providing better opportunities for employment, professional mobility, and better working conditions on the other. The economic benefits to a society as a whole are a reflection of the associated benefit higher education provides to individuals, and mainly relates to increased revenues from tax, productivity and workforce flexibility, and the availability of financial support from both the public and private sectors (Percy & Svenson, 2016).

Perhaps economic and social motivations are not the sole motivations behind governments in funding higher education institutions. The literature highlights another such motivation, which is for political purposes. In other words, there is a belief that governments seek to achieve political purposes through the financing of higher education institutions (da Costa Marques, 2015; Devarajan, Monga, & Zongo, 2011; Jongbloed,

2008, 2010); they believe that government subsidisation is one of government's instruments of intervention (funding councils, ministries).

Public funding for higher education is an essential element in the success and survival of educational institutions; also, the subject has merited significant examination in research conducted into higher education (Y Kim, Horta, & Jung, 2017; Ochwa-Echel, 2016). Several scholars (e.g. Bevc & Uršič, 2008; Salmi & Hauptman, 2006a) and European Commission (2010) have added that the landscape of higher education financing has become more complicated for several issues, including effectiveness and efficiency of using funds, competition for available resources among sectors, and convergence of several demographic and economic forces. Consequently, balancing the requirements of multiple stakeholders (e.g., students, higher education institutions, governments, and taxpayers) is undoubtedly complex for institution leaders and policy makers alike (Amy, 2016).

The importance of higher education funding has become a global phenomenon, and is vital for the achievement of the educational objectives of a nation; also, it has received growing attention over the last few decades, and is clearly a multifaceted issue. Increasing enrolment, scarce government financial resources, and the increasing unit of cost per student are certainly of central concern in both developing and developed countries (Dragoescu & Oancea, 2014; Holliday & Gide, 2016; Johnstone & Marcucci, 2007; Jongbloed & Vossensteyn, 2016). The issue of the diminishing availability of public funding to higher education institutions has become a topic of discussion in many countries (Experton & Fevre, 2010; Farhan, 2014; Teixeira & Koryakina, 2013). Governments, constrained by their budgetary and economic challenges, are experiencing a growing demand for higher education against a backdrop of reduced governmental ability to contribute towards the rising costs of higher education institutions (Chapman, 2006; Fengliang, 2012; Guest, 2006; Johnstone, 1998; World Bank, 1994; Ziderman & Albrecht, 1995). For these reasons, governments and institutions have been experiencing a pressing need to find new ways to finance higher education. This has resulted in shifting the burden of cost for higher education funding from governments to the students themselves (Chapman, 2006; Fengliang, 2012; Guest, 2006; World Bank, 1994; Ziderman & Albrecht, 1995).

This situation and the influence of globalisation serve as a particular motivation for the reconsideration of the funding system. In addition, it entails higher education institutions turning towards diversification of higher income sources, in particular those countries where governments currently provide the main source of their funding (Andeßner & Greiling, 2017; Sav, 2010; Siddiqui, 2014). However, African countries are facing state fiscal crises; along with rising foreign debt, as in the 1980s and 1990s most of these countries had to adopt structural adjustment programmes. All these developments have had an adverse effect on the availability of public funding for the education sector in general, and higher education in particular. The magnitude of these challenges is far greater than anywhere else; this is because of several aspects, such as the economic challenges faced by the majority of African countries, for example concern for health-related issues such as HIV/AIDS, rising government budget deficits, students' inability to afford tuition fees, amongst others (Experton & Fevre, 2010; Kamola, 2014; Teferra, 2015). The Arab countries have also faced additional challenges such as in the majority of Middle Eastern and North African (MENA) countries; in particular, the youth demand for better opportunities in terms of education and employment. Seeking financial sustainability for educational demands should be a priority for systems of higher education (Jaramillo & Melonio, 2011) .

A number of scholars (e.g. Duménil & Lévy, 2011; Fisher, Rubenson, Jones, & Shanahan, 2009; Hyslop-Margison & Leonard, 2012) have attributed the problems of higher education funding to political causes such as neoliberalism. For example, Hyslop-Margison and Leonard (2012) argued that the collapse of the Soviet Union at the end of the last century led to the dominance of the neoliberal ideology, making it the central engine of changing economic and social policies. These scholars added that “neoliberalism offered a form of economic rationalism where market principles pervaded all areas of private and public discourse, including within the realm of public education” (Hyslop-Margison & Leonard, 2012, p. 3). A similar argument was made by (Fisher et al., 2009).

Declining higher education funding and similar challenges have led to additional stakeholders, such as economists and educational scholars, to pay more attention to the analysis of various perspectives and to proposing different methods of funding to address this issue (Armbruster, 2008). As a natural reaction to these challenges, in recent decades, public higher education institutions have substantially modified their structures,

environments, processes, and strategies, leading to considerable changes in their functions as well as in the values of higher education (Andeßner & Greiling, 2017; Jongbloed & Vossensteyn, 2016). The move towards public higher education institutions as enterprises is reflected in the considerable changes in the associated funding structures. The growing pressure to cut public financing has led to a shift from input-based funding towards output- and performance-based funding for publicly funded institutions, and an increasing share of funds through competitive means, as well as the increased presence of cost sharing between taxpayers and students. Lump sum budgets have increased funding based on negotiated contracts or formulae and the pressure to attract donors and sponsors is leading to higher funding diversification (Andeßner & Greiling, 2017; Cremonini, Epping, Laudel, & Leisyte, 2013; Heller & Callender, 2013; Jongbloed & Vossensteyn, 2016).

Broadly speaking, the investigation of higher education funding addresses two issues: financial sources and funding mechanisms. With regard to the funding sources, the literature indicates that there are several classifications of funding sources for higher education institutions. Commonly, these funding sources can be grouped into three broad categories, namely governmental (or taxpayers); shared financing (cost sharing) between the government and other partners (families, private organisations, own resources, donations ... etc.); and students, through tuition fees (da Costa Marques, 2015; Federico, 2012; Goksu & Goksu, 2015; Jongbloed & Vossensteyn, 2016; Newton, 2016; Skrbinjek & Lesjak, 2014). Nevertheless, there are several exceptional cases in which external financing contributes to higher education funding, either through countries or international organisations (e.g., European Regional Development Fund (ERDF), the World Bank, etc.) (Estermann & Pruvot, 2011; Teferra, 2013). However, it is worth noting that each of these funding sources has a diverse impact on higher education institutions that varies from country to country (Federico, 2012); in addition, there is no optimal model of financing higher education that can be generalised across all countries (Todea & Tilea, 2011).

Despite the multiplicity of funding sources, governments remain the principal sources of funding for higher education institutions in the majority of developed and developing countries; the contributions from alternative sources (private sector, tuition fees, cost sharing, etc.) to overall funding are minimal, in particular for emerging countries, the latter of which present specific educational needs that must be subsequently supported

(da Costa Marques, 2015; Das, Chakraborty, & Dey, 2015; Federico, 2012; Siddiqui, 2014).

Nevertheless, the matter does not stop at identifying funding sources but requires further investigation as to how governments allocate funding to any given institution. As (Dea, 2016; Ziderman & Albrecht, 1995) have observed, in higher education systems, whilst the amount of money distributed is important, what is more pertinent is how that money is allocated among institutions and *how* it is utilised. Mechanisms used for allocating public subsidies to higher education institutions should not be ignored. It cannot be expected that higher education problems can be solved without addressing the issue of funding mechanisms, as Jongbloed (2008) has argued. The financial resource allocation issue is not simply about granting money to individual institutions – the variety of methods used reflects a broad range of economic, political, and socio-cultural motives (Salerno, 2005).

In general, governments typically provide financial support to higher education institutions via two principal allocation mechanisms: (1) the direct fund, i.e., a government allows the flow of financial provision directly to institutions of higher education to support capital investment, recurrent expenses, research, and specific purposes (such as negotiated budgets, funding formulas, and categorical funds); (2) the common alternative form is distributing state funding via students and their families rather than directly to the institutions, which is so-called indirect funding (such as vouchers, tax benefits, government grants and scholarships, and student loans) (Jongbloed & Vossensteyn, 2016; Mutiso, Onyango, & Nyagol, 2015; Salmi & Hauptman, 2006a; Skrbinjek & Lesjak, 2014; Ziderman & Albrecht, 1995). Both types are the subjects of considerable attention in the literature review chapter.

1.2.2 The Libyan higher education system

The current study focuses on several issues concerning higher education funding particularly the public universities in Libya, which is considered one of the developing Middle Eastern and African countries. Its economy is largely based on oil exports, and it is classified as one of the upper-middle income countries (Alsanousi, 2017; World Bank, 2014). The Libyan economy depends on oil revenue, which contributes on average about 95% of export earnings, 48.9% of GDP, and 75% of government revenues (Aimer, 2017; Etelawi, Blatner, & McCluskey, 2017; Harvie & Ali, 2013). Libya is one of the countries

that has managed its economy by state planning and government intervention for more than 40 years. Its government believed that the state should be in charge of the production and financing of all aspects of education in order to achieve its aim of social justice, freedom and fraternity (Barr, 2004a), as well as to ensure the expansion of human knowledge, to ensure equal opportunities in education, the achievement of national educational goals, and facilitate better achievement of social and economic development in Libya (Harvie & Ali, 2013; John, 2008; World Bank, 2014).

Higher education in Libya, as elsewhere, has been a priority for economic and social development programmers, with its first higher institution being established in 1956, since when several objectives have been set as a result of the recognition of the vital role that higher education can play in modernising Libyan society and its economy. As a result, there has been an increase in student enrolment in higher education, as well as in securing equal opportunities in terms of access to universities for males and females. The government has sought to expand the establishment of universities and Higher Education Institutions (HEIs) horizontally (Vandewalle, 2012). With reference to the changes in demographic conditions that Libya has witnessed, the higher education sector has achieved a considerable improvement in its enrolment rate. The total population of Libya is approximately 6 million, out of which around 6% are students at the higher education level. The growth rate of higher education enrolment has been 2.5% annually since 1975. The number of universities has grown from two in 1975 to 13 in 2015 (Libyan Organisation of Policies and Strategies) (LOOPS, 2016). In the same context, and based on the British Council report (Rose, 2015), Libyan secondary education ranks 11th in the world thanks to its achievement of a gross enrolment ratio of 110.3%, as well as registering an enrolment ratio of 54.4%, placing Libya in 46th place globally.

1.2.3 Higher education funding in Libya

Libya, like most other developing countries, depends on its public sector to run and finance its higher education sector; this might be because of the abundance of funds and the nature of the oil-based economy (Gallali, 2012; Mami, 2003). Based on the Law of Budget issued by the Ministry of Finance (1973), the Libyan government allocates the annual budget for each higher education institution, which is divided into two kinds of budgets: (1) a current expenditure budget, allocated by the finance ministry; and (2) a developmental expense budget, allocated by the planning ministry. Both these budgets

are divided into a number of heads. The developmental budget directly links universities plans and the state under the specialisation of the Ministry of Planning. The funds allocated within capital expenditure are normally committed for extended periods; moreover, the developmental budget aims to provide a budget with national policy objectives and macroeconomic performance. In contrast, private institutions are self-financed and their main funding resource is mostly student fees and the services they provide to the public, such as training courses. The government's role in private institutions is limited to one of supervision only.

An International Monetary Fund (IMF, 2013) study has revealed that the level of recurrent spending has been inconsistent with appropriate budgetary prioritisation, particularly since the revolution. Increases in the wage bill continue to undermine fiscal stabilisation efforts, especially given the volatility of oil prices and the narrow non-hydrocarbon tax revenue base. Overall, under the existing legal and regulatory framework, budget expenditure cannot exceed the initial ceilings specified in the annual budget law.

The financial resource allocation for higher education has fluctuated over the last decades. Beginning in 1970, an amount of 7.6 million Libyan Dinar (LYD) was spent on Libyan education overall. The next year (1971) this amount more than doubled to 17.9 million, and increased again to 35.1 million in 1972, thereafter rising steadily throughout the 1970s and early 1980s. One possible cause for this dramatic increase was as a result of the sharp rise in global oil prices, and a massive increase in government revenues in 1973 and 1979, which brought unprecedented changes within Libyan society. However, as a consequence of the global economic recession of the late 1980s, financial resources provided by the public treasury diminished, and the budget expenditure on the education sector decreased significantly from 1986 to 1999, as a result of lower oil prices in the mid-1980s. It fell to its lowest level of 17.8 million in 1993, the same as it had been 20 years earlier. After that, it again started increasing sharply to 62.5, 308.1, 216, and 230 million LYD for the years 1995, 2000, 2002, and 2006, respectively. Along with the change in the country's political scenario, public spending reached more than 2 billion LYD in 2013 (Otman & Karlberg, 2007; The Finance Ministry, 2013).

With regards to the availability of secondary data, a report issued by the British Council (Rose, 2015) revealed that there is a lack of such data, in particular regarding government expenditure on public sectors including higher education. This is because the country has

remained in a state of civil war for the entire six years subsequent to the revolution, and is also due to the associated political and administrative instability. However, these figures, even when available, are sometimes misleading; most international organisations showing tables of comparison have blank or almost blank columns concerning Libya.

1.3 Statement of the research problem

Financial sustainability is the key challenge to public universities in both developing and developed countries. The rapid changes in the context of higher education across the globe, driven by political, economic, social, and technological forces, have created an unprecedented set of challenges for the financing of public universities. Moreover, recently, public agencies across the world have been influencing reforms regarding funding policies for various reasons, the most important of which was the global economic crisis (Sangiumvibool & Chonglertham, 2016). In public higher education institutions, these ‘funding reforms’ have included performance-based budgeting, budget cuts, and incentive funding to encourage commercialised research (Sangiumvibool & Chonglertham, 2016).

In today’s world, there are two seemingly contradictory issues dominating the higher education sector. On the one hand, higher education institutions have the potential to act as key actors in the overall development of an economy. On the other hand, such institutions are required to operate within tight financial frameworks resulting from the decreased support available from government finances. With regard to the inadequate funding and other challenges faced by public universities, several researchers have conducted studies into the financial challenges experienced by higher education institutions, operating in various economic, social, political and technological environments (Andeßner & Greiling, 2017; Dragoescu & Oancea, 2014; Jongbloed & Vossensteyn, 2016; Y Kim et al., 2017; Maria & Bleotu, 2014; Martin, 2013; Ochwa-Echel, 2016; OECD, 2008a). A more detailed discussion can be found in the literature review chapter.

However, despite the importance of the topic of higher education funding, as well as the existence of a large number of studies into higher education funding globally, there is a notable lack of studies conducted in MENA countries, for example in Libya. The gap in this subject area, along with a number of other factors, led to the study of this topic. Nevertheless, there have been very limited attempts to study this area in MENA countries.

These studies are theoretical reviews and are not generally supported by empirical evidence. A study conducted in Morocco by Bougroum and Ibourk (2011) explores the policy of higher education financing, in particular concerning the equity issue. A study by Kabbani and Salloum (2011) examines the access and equity implications of the efforts of the Syrian government to reform higher education over the past decade. Abdessalem (2011) conducted a study focused on higher education funding in Tunisia, addressing the challenges faced by higher education institutions in terms of financial aspects. A comparative and assessment study was conducted by El-Araby (2011) on the financing of higher education in six Arab countries, namely Jordan, Egypt, Lebanon, Syria, Morocco, and Tunisia. The study was intended to reveal the similarities and differences in higher education financing among the countries under investigation. Furthermore, it addresses the future challenges of financing and assesses governmental efforts in this regard, as well as providing alternative strategies for overcoming related problems. The World Bank presented a report (Jaramillo & Melonio, 2011), prepared by its team, that analysed higher education in MENA. The report included seven chapters, each addressing a particular issue: financial sustainability, cost sharing, private higher education, diversification revenues, etc. There is a need to investigate the economic, social, and political conditions in developing countries that may have hindered the funding reforms in the higher education sector (Sanyal & Martin, 2009; Schiller & Liefner, 2007).

Identifying the factors influencing higher education funding and how they interact in the funding model across the world is a challenge. The literature on factors impacting budgetary decisions mostly concern the industrial and commercial sectors, with limited research on the public sector including higher education. Budget-related research in the higher education area has emphasised the impact of three critical factors: political influence, economic conditions and student headcount (Cheong Cheng, Hung Ng, & Mo Ching Mok, 2002; Fethke, 2006; Herwartz & Theilen, 2017; Kelchen, 2016; Keppler, 2010; Sangiumvibool & Chonglertham, 2016). These three factors are among of the most mentioned in the related literature, and are considered to be dominant in the process of decision making. However, social factors have not received sufficient attention in the existing literature.

More specifically, in Libya, the need to study the funding of public universities is urgent due to the volatile nature of the economic, political, social environment, and the context of the higher education system. The fact that the Libyan economy is mainly dependent on

oil exports as the main source of public revenue makes the economy uncertain with regards to selecting projects and formulating plans for development. It is unreliable to base this on a single financial source, and difficult to undertake long-term planning due to resource uncertainty. This claim is also justified by the fluctuations in oil prices, and particularly when the world's major oil consumers are in the advanced stages of finding alternative energy sources. Thus, any shock and decline in oil prices would have significant effects on the Libyan economy in general and the implementation of the selected policies in particular (Aimer, 2017; Alsanousi, 2017; Etelawi et al., 2017). These concerns are reflected in the higher education sector, and the emerging degree of seriousness for the Libyan higher education sector, particularly the financial issue, stems from its over-reliance on government funding that is derived solely from oil revenues.

Concerning the higher education sector, some studies (Donald Kaberuka, Christian Friis, Klaus Schwab, & Yong, 2013; LOOPS, 2016; Mami, 2003; Schwab, 2010; Shameia, 2008; Taghavi, 2013; Zahi, 2003) and Center for Quality Assurance (2010) have reported that Libya faces multiple challenges regarding proper implementation of higher education programs. These challenges range over several areas, such as funding and quality, and others related to the management of the higher education sector. On one hand, there are severe pressures on funding; and on the other, there are demographic pressures for yet more expansion to create equal opportunities. In response to these challenges, over decades, the dominant issues in Libya are how can the government (1) reduce the burden on the public treasury, (2) diversify national income sources, and (3) reduce the dependency on oil; and, thus, (4) how can alternative resources to fund the various sectors, including the higher education sector, be provided? (Elfetori, 2003). Furthermore, numerous educational specialists argue that it is time to provide additional funding resources other than from the government budget. In any event, though, free education should still remain in place for low-income families (UNESCO, 2007).

Therefore, there is a compelling and immediate need for a deliberate and significant effort by higher education institutions, government and academics in Libya to overcome such challenges. This could be achieved through clear policy initiatives that ensure institutions should be financed to the level at which they can produce (both in qualitative and quantitative terms) the necessary human resources for national development. Furthermore, Libya is at a transformation stage of rapid political, economic, and social changes, and needs a higher education system that is compatible with the requirements of

its changing needs, and which will facilitate the available economic and human resources required to both improve and accelerate its economic and social development.

As mentioned earlier, given the lack of academic and government research in Libya concerning the topic of higher education funding, more thorough research is required, both of a theoretical and empirical nature, in order to understand the current situation in Libya. Through such research on the subject, the government and public higher education institutions should be able to help develop a better understanding of several aspects related to this topic and begin to establish policies that contribute to improving the funding model and keeping pace with international trends.

1.4 Aim and objectives:

The principal aim of this research is to explore, understand and examine the government policies relevant to higher education funding in the Libyan context.

This aim will be achieved by meeting the following objectives:

- To provide an analytical view and find the necessary information needed to establish a full picture of the current model of funding allocation mechanisms in public university financing concerning funding sources, the criteria used for distribution of funds, and motivations behind government funding.
- To identify the economic, social, political and other factors influencing the allocation of financial resources to universities.
- To identify the challenges and prospects faced by Libyan public universities with respect to funding.

1.5 Research questions:

In order to achieve the above aim and the primary objectives of the research, several research questions were raised, which the inquiry will attempt to answer.

Q1. What is the current model of resource allocation regarding funding for Libyan universities in terms of:

- i. funding sources,
- ii. criteria used for distributing resources, and
- iii. motivation for governmental funding?

Q2. What are the economic, social, political and other factors that influence the allocation of financial resources to universities?

Q3. What is the nature of the financial challenges faced by universities in Libya?

1.6 Research rationale and significance

Over the past three decades, international higher education has been subjected to broad reforms concerning its structure, funding, governance, and management. Funding reforms have included a move away from input-based funding and incremental budgets, toward the increased importance of performance and output criteria in the financing formulae and competitive funding mechanisms; and, moreover, reduced reliance on government funding and diversification in sources of finance. Universities in many countries have been encouraged to obtain funds from alternative sources (i.e., non-governmental sources), such as research contracts, commercialisation of research results, services provided to society, etc. (Claeys-Kulik & Estermann, 2015; B. Clark, 1998; Cremonini et al., 2013; Estermann & Pruvot, 2011; Gebreyes, 2015; Liu, 2007; Massy, 2009; Rozmus & Cyran, 2012). Therefore, this study is situated at the confluence of two significant areas of inquiry: transformation in the policy of the higher education funding worldwide, and the massive transformation that has been witnessed within Libya in terms of its political, economic, and institutional environment; and, there is a need to explore and understand the current applied system of higher education funding.

Broadly speaking, the study contributes to the present funding issues in public universities and opens a discussion concerning higher education in Libya, as well as in MENA and developing countries. Specifically concerning the Libyan context, to the best of the researcher's knowledge, and to date, this is the first research that investigates the funding of public universities in Libya; thus, the findings of the study can contribute to the associated theoretical and practical applications. Therefore, understanding the current model of government funding is, arguably, the initial step in attempting a possible evolution or change from the stakeholder perspective.

Moreover, this type of research is necessary so that higher education institutions can learn to diversify their financing and not rely on only one source (namely, their governments); because if the government source is paralysed, then institutions would suffer total

collapse. Thus, the institutions' situations would be better if alternative financial sources could be made available.

As this is a relatively new phenomenon in Arab higher education, so the expanding knowledge on such topics is necessary and provides for improved understanding in this regard. Moreover, considering that one of the study's objectives is the identification of factors that influence resource allocation, a better understanding of how such factors can influence government allocations to higher education institutions can help policy makers and institutional leaders forecast future funding trends.

Moreover, Libya lacks clear and accurate public policies and understand of future trends regarding higher education funding. Thus, this research attempts to identify relevant policies through theoretical and empirical research, and to evaluate the decision making process in order to establish a substantial and viable policy regarding higher education funding. The study helps institutional leaders, policymakers, and various other stakeholders in higher education to explore and identify effective methods of transferring public financial resources to higher education institutions and their students.

It seems that development and improvement will only occur if officials feel that there is a necessity for change. Various stakeholders might be motivated to change when essential information and analysis – that is, persuasive evidence – is provided that shows unequivocally that there is a need for that change. Therefore, it is expected that the results of this research will be useful to policy makers, university leaders, government officials, scholars, and other key players in the higher education field.

Furthermore, the content of the present study could also apply to other countries that share similar economic, political, and socio-cultural values as Libya, and that face similar challenges in the financing of higher education. The contributions that will be obtained from this study towards providing alternative mechanisms of resource allocation for higher education can be globally applied to other states, especially developing countries.

With regards to the theoretical perspective, there is a lack of use of any multi-theoretical underpinning to higher education funding in previous studies. Thus, human capital theory, agency theory, and resource dependence perspective provide complementary frameworks to understand some of the aspects related to resource allocation of funding for Libyan public universities.

The scientific and practical insights of the researcher's previous experience through his work at the Libyan Ministry of Finance and his academic work as a lecturer at the University of Tripoli has enhanced and supported this study. Thus, the study is the result of both the practical and academic experiences of the researcher, enabling him to achieve the study's aim and objectives. The researcher also hopes that this study will contribute to the knowledge of the Libyan context and to establishing a starting point for future studies for various aspects of higher education as a sector.

1.7 The methodology

Given the investigative and inductive nature of this study, and in order to achieve the research aims, this study is qualitative in nature. The study is undertaken from an epistemological interpretive perspective in line with the researcher's relativist ontological view, which assumes that social phenomena are created from the perceptions and the consequent actions of social actors that are often associated with the term "constructivism" (Creswell, 2013; Easterby-Smith, Thorpe, & Lowe, 2012; Saunders, Lewis, & Thornhill, 2012).

In order to answer the research questions stated above, the research methods are based on the qualitative approach. Choosing a qualitative approach to research is due to the fact "that the approach allows you (as a researcher) to identify issues from the perspective of your study participants, and understand the meaning and interpretations that they give to behaviour, events or objects" (Hennink, Hutter, & Bailey, 2011, p. 9). Furthermore, adopting qualitative research methods helps the researcher gain "deeper understanding of the social phenomena that would not be obtained from purely quantitative data" (Silverman, 2005, p. 10). The reality is seen differently, and thus it takes various manifestations in the views of the participants (stakeholders in this study). Their opinion of reality might be affected by the prevalent political, cultural, economic values and other dimensions. The researcher believes that participants can contribute to contracting reality and this assists the researcher in describing and interpreting the associated human behaviour and consequently understanding it (Creswell, 2013). Therefore, the current research is an interpretive qualitative study investigating the participants' perceptions (government agencies and universities officials) of the governmental policies relevant to financial resource allocation to public universities in the Libyan context.

With regards to the research strategy, the researcher chose the case study method as the strategy best suited to discovering a phenomenon and understanding it from the perspectives of those being studied. Case study as a research strategy enables the researcher to obtain a thorough understanding of the participants' perspectives and experiences in a natural context. It also attempts to make significant contributions to the knowledge and understanding of the participants' perceptions, whether government policymakers or individuals, and is relevant to allocating financial resources to public universities in the Libyan context in light of the current financial and political situations. Besides, it aims to achieve "naturalistic generalisation", a unique generalisation considered a characteristic of science (Stake, 1995).

Purposeful or judgment sampling has been chosen as the approach by which to select the participants. Such types of non-probability sampling are the most common technique of sampling used in case study research and have emerged as a practical choice for the current study. This is a feature of qualitative research, and the sample size tends to be small. The logic and power of choosing such a sample "derive from the emphasis on in-depth understanding" provided to the researcher (Patton, 2002, p. 46) . The researcher selects the most productive sample to answer the research questions based on the typicality or qualities the sample possesses (Tongco, 2007). A purposive sample "yields insights and in-depth understanding rather than seeking empirical generalization" (Patton, 2002, p. 230).

In this study, the sample is purposive, consisting of three groups of participants and directly involving 25 individuals responsible for financial allocation to public universities. These groups are members of the higher education committee in the Libyan Parliament (policy makers); senior officials in charge at government agencies, including the Ministries of Higher Education, Finances, and Planning (decision makers); and senior officials in the public universities (beneficiaries).

Concerning the instrument of the data collection, semi-structured interviews and document analysis are used as the principal methods for collecting data in this study. This requires listening to people's perceptions and experiences. The semi-structured interview allows the researcher to direct the scope of the interview, through themes, an interview guide, using probes, follow-up questions, clarification and elaboration. Within interviews,

“questions and their order are not fixed: they can be adopted to the flow of the interview conversation” (Flick, 2014, p. 199). As Hammersley (2008) argues that the semi-structured interviews also enable the creation of reconciliation between interviewees and the interviewer, as well as providing the chance to express their perspectives freely, and this allows the interviewer uncover, and further examine, the complexity of such perspectives .

Moreover, documents are particularly beneficial for this study because of their availability at low cost and their richness of information, without being reactive to the presence of the researcher or surrounding circumstances. This study used documents and records as additional sources of data to answer some of the research questions and sub-questions.

For this research, thematic analysis is a more appropriate method for data analysis. Applying thematic analysis enables the researcher to detect and identify variables or factors that influence the issues generated from the interviewees. “Thematic analysis provides a flexible and useful research tool, which can potentially provide a rich and detailed, yet complex, account of data” (V. Braun & Clarke, 2006). This, in turn, facilitates further understanding and consequent interpretation.

1.8 Ethical considerations

Consideration of fundamental ethical principles in research has been made (Easterby-Smith, Thorpe, & Jackson, 2008). The researcher ensured the important aspects of research, e.g., accuracy, lack of bias and the interests of the participants. The researcher informed the respondents as to the research objectives and obtained consent from the participants to record the interviews. An assurance will be given stating that the collected data will be used for research purposes only, that all information gained from individual responses shall remain confidential, and that the anonymity of the participants is assured (Bryman & Bell, 2011). The author has requested guidance and assistance from the supervisor at each stage of the research.

1.9 Organisation of the thesis

This thesis is organised into seven chapters, including the current chapter. The first Chapter (Introduction) includes a background to the research, together with the statement of the research problem, the principle aim and objectives, motivations, outline of the

methodology, and the thesis structure. The second Chapter reviews the literature to formulate a theoretical perspective using the theory related to human capital theory, agency theory, resource dependence theory, and institutional theory. The third Chapter provides an overview of the Libyan context, including its economic history and discussion relating to higher education funding. The relevant empirical literature related to higher education funding is presented in Chapter 4 in order to explore the relevant variables to be used in the research and identify research gaps. Chapter 5 focuses on the research methodology used in this research including research paradigms, research design, sampling, and data collection techniques and the justification for their use. This chapter examines how the study will be conducted in the field and how the data will be analysed, as well as participant selection, pilot study, and the processes of data generation and data analysis. Ethical issues concerning involvement with human subjects, and trustworthiness of the study, are also presented. Chapter 6 offers the main findings of the empirical investigation concerning the research questions, and explores, understands and examines the government policies relevant to public university funding in the Libyan context; it then discusses the key qualitative research findings of the empirical study and compares these results to the relevant literature. Chapter 7 presents the study's fundamental contributions to both theory and practice, and concludes with certain recommendations, limitations and evaluation, together with a number of proposals for future research.

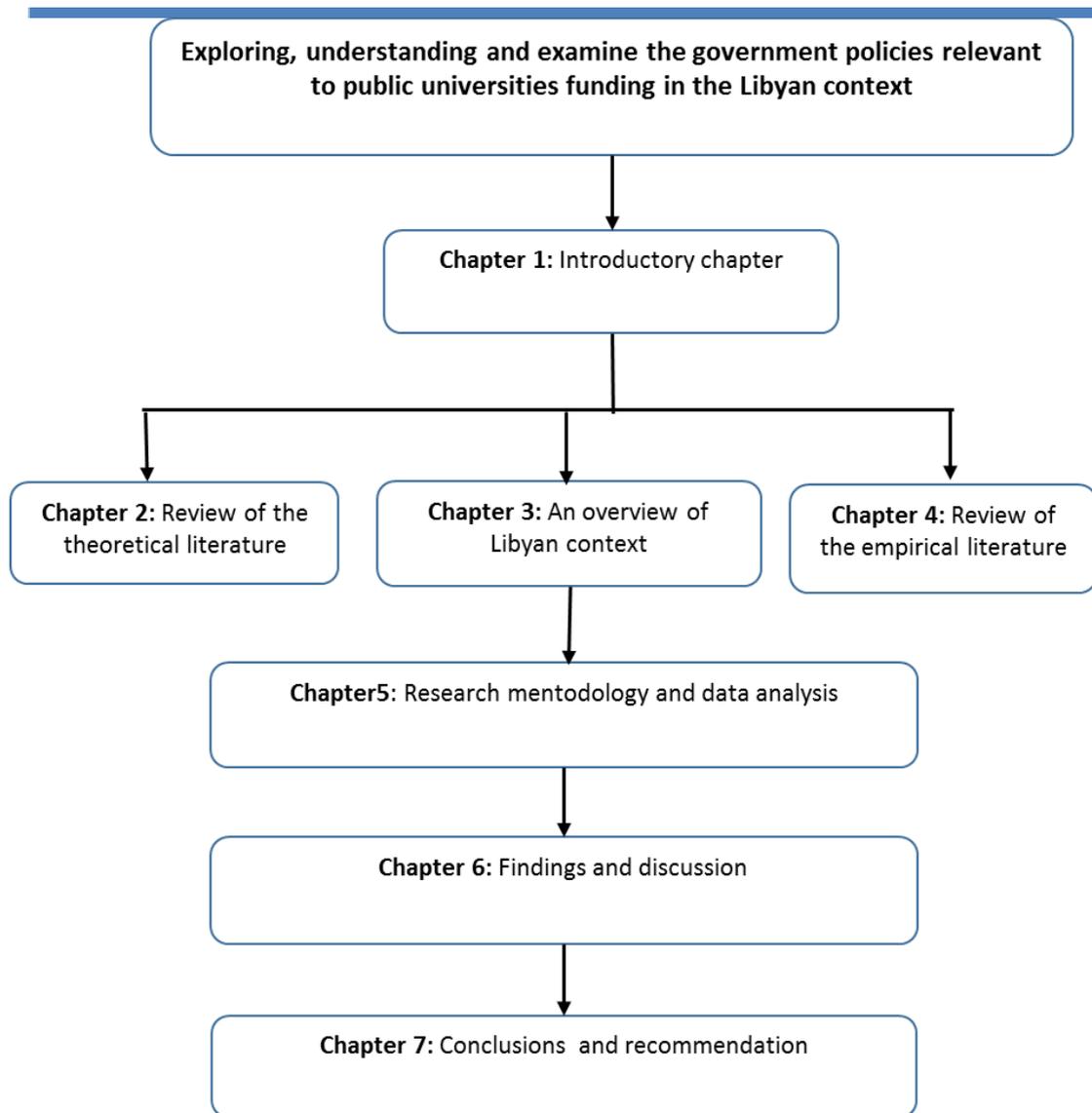


Figure 1-1 Organisation of the thesis

1.10 Summary

This introductory chapter has presented an overview of higher education financing and its importance in both developed and developing countries. The chapter includes the expansion problem, financing systems and gives a brief overview as to the different mechanisms of higher education funding. Moreover, it provides a brief background to the higher education system in Libya. The research problem, objectives, methodology, and data analysis were stated together with the significance of the study. Finally, the overall organisation of the thesis was outlined. The next chapter provides a review of the theoretical background to the dissertation.

Chapter 2 - Literature review: higher education funding- theoretical debates

2.1 Introduction

The aim of this chapter is to provide an overview of and discuss the theoretical framework of the thesis. Agency theory, resource dependency theory, human capital theory, and institutional theory aim to provide a complementary perspective concerning higher education funding. A joint consideration of the four theories provides an extensive and rich understanding of various issues related to higher education funding and policy analysis, which is hard to achieve using one of the theories alone. The chapter is divided into five sections, namely, overview, agency theory, resource dependency theory, human capital theory, and theoretical contribution.

2.2 Overview

There have been extensive debates on the link between an increase in higher education funding and its impact on the economy (Hatsor, 2015). The author Hatsor (2015) also argues that there has been a paradigm shift from public to private funding. Similarly, it has been argued that higher education is no longer a right or privilege of the elites. Higher education is now a critical factor in determining a country's economic success (Barr, 2004b).

In the same context, Barr (2004b) presents four ways in which an increase in higher education funding may positively impact economic growth; they include the quality of education, the propensity of the higher education sector to adapt to changing situations, market forces and the demands of the labour market; moreover, the study added that the process of higher education funding and the allocation of such funds is a complicated process. Similarly, a study by Hatsor (2015) suggests that the funding process is challenging due to the existence of alternative funding mechanisms. The author argues that the alternative funding process has become individualistic; this is because students are greatly involved in the process of choosing appropriate loans to fund their higher education.

At another end of the spectrum, the debate on higher education is that "higher education is a basic right and should therefore be free" (Barr, 2004b, p. 3). Nonetheless, the fact remains that higher education requires an enormous amount of funding and resources. It

has been argued that lower tuition fees and fee waivers are a repressive use of taxpayers' money (Yang & McCall, 2014). Usually, a country's political terrain may determine the extent to which public funds are diverted towards higher education (Barr, 2004b). At face value, it may appear that an increase in higher education funding will positively affect economic growth. However, Wolf (2002) argues that an increase in higher education funding may not result in economic growth. The key issue is what are the processes involved in the funding of higher education institutions? The theories relate to the funding processes in different ways, revealing that no one theory can exhaustively address the phenomenon. Consequently, these theories might assist in understanding and explaining various aspects related to higher education funding, in particular factors, challenges experienced by public universities, and the nature of the relation between the government and universities regarding funding aspects.

2.3 Agency theory

Agency theory was first developed by Jensen and Meckling (1976); Gill and Mathur (2011) defined the agency relationship as "a contract under which one or more persons (principal) engage another person (agent) to perform some service on their behalf, which involves delegating some decision-making authority to the agent." (Gill & Mathur, 2011, p. 2).

The agency theoretical perspective is comprised of the following key ideas. First, there is a contractual agreement between one or more parties. One party, the principal appoints the other party, the agent to perform services on his or her behalf (Kivistö, 2005; Ross, 1973). The contract is based on the hypothesis that the agent possesses the qualifications skills, information, abilities and experience to perform specific tasks and achieve required outcomes for the principal, so the agent is paid for his or her effort (Bendor, Glazer, & Hammond, 2001; Kivistö, 2008). Second, the theory is relevant in situations whereby there is the possibility of information asymmetries and divergent interests. The crucial question in agency theory is how to align the interests of the agents and principal? Moreover, Principal-agent theory is concerned with the degree of power exercised by the government for controlling the public university budgets (Ferlie, Musselin, & Andresani, 2008; Kasdin, 2010; Pfeffer & Leong, 1977).

Cooley (2015) argued that there are different forms of this relationship ranging from one-principal-one-agent to multiple-principal-one-agent or one-principal-multiple-agent. As

their respective titles suggest, one-principal-one-agent focuses on single principal and single agent, multiple-principal-single-agent allows multiple principals to direct a single agent in different tasks, and one-principal-multiple-agent refers to a scenario that includes a single principal that is directing many agents. Of the three situations, the second form is most commonly used in government-run operations in which more than one actor controls a single unit (Cooley, 2015). For example, the Ministry of Higher Education, Ministry of Finance, and the Ministry of Planning may jointly control public higher education institutions, albeit in various aspects of their operation relevant to their jurisdiction and specialisation.

As a result of the idea that agency relationships are universal (Ross, 1973), the theory has been applied in a variety of fields. They include the following: Accounting (Baiman, 1990; Brennan, Solomon, & Jones, 2008; Brennan, Solomon, Uddin, & Choudhury, 2008); Marketing (Bergen, Dutta, & Walker, 1992); Political Science (Moe, 1984); Public Administration (Laffin, 1997); and Organisational Research (Eisenhardt, 1989; Nilakant & Rao, 1994). Similarly, several scholars (Baker, Gibbons, & Murphy, 2002; Foss, Foss, & Vázquez, 2006; Nohria & Ghoshal, 1994) have conducted research on multinational corporations using the lens of agency theory.

However, despite the use of agency theory in the various fields, few studies have used the theory in examining higher education. In higher education policy, agency theory is useful to explain “how and why elected officials seek control of state higher education agencies, how agencies respond to political control, and in what ways agency structure influences policy implementation” (Michael K. McLendon, 2003, p. 174). Agency theory applies to the higher education industry because different institutions have different goals and priorities depending on their level of development and organisational economic and political goals (Kivistö, 2008).

During the process of government budgeting, a higher education institution must comply with the government’s policies and regulations, as well as management’s direction. Government financial allocation of a public institution is essential for the sustainability of the university, and for its survival and long-term growth (Keppler, 2010; Phusavat, Ketsarapong, Ooi, & Shyu, 2012). As a result, scholars (Altbach, Reisberg, & Rumbley, 2009) believe that the government sets policies and regulations for public universities; that means a public university will inevitably be influenced by governmental policies.

Sangiumvibool and Chonglertham (2016) argued that the relationship between government agencies (that provide funding and policy) and higher education institutions (that obtain funds and have to adhere to policies) falls into the agency theory.

A set of empirical studies analysed the agency relationships in the higher education system. For instance, D. Braun (1993) on the basis of agency theory criteria examined the role of third parties (intermediary organisations) in the funding process of scientific research. The author argued that the role of the third party is rarely examined in the principal-agency relationship. The study ascertained that offshoots of the agency relationship include a ‘cooperative and symbiotic relationship’ between intermediary organisations and funding recipients. Similarly, another study conducted by Massy (1996) using the agency lens outlined the framework for alternative funding mechanisms for universities. The study by Van der Meulen (1998) analysed the relationship between government and industry on scientific matters. The study revealed that the competitive principal-agent relationship between both parties leads to the existence of divergent interests. In Thailand, in a study by Sangiumvibool and Chonglertham (2016) on performance-based budgeting and the factors that influence budgeting decisions for higher education, the authors used agency theory for identifying the influences exercised over Thai universities. The study concluded that there is no evidence of economic conditions, student headcount, or political influence having a direct impact on the budgetary expenditure of Thai universities.

Another study is related to another aspect of higher education funding, which is competitive funding and its effect on the production and efficiency of universities in eight European countries over the period 1994–2006 (Bolli et al., 2016). The authors used agency theory as a theoretical framework by discussing three various channels through which competitive funding may impact both the efficiency and production frontier of universities. Due to the empirical framework relying on the level of data of the university, the discussion often refers to the university as the principal. Nevertheless, in reality, the principal-agent relationship is complicated even further because the agent is often the individual researcher, not the aggregate university.

Agency theory assumptions present a number of possible problems in the agency relationship. These problems include adverse selection and moral hazard. The problem of adverse selection arises in the following ways. First, there is information asymmetry

between the principal and the agents. This is heightened by the issue of uncertainty, as the principal may be unable to ascertain the agent's ability to perform the assigned task. Second, the agent may mislead the principal into thinking that he or she is qualified for the role (Alvarez & Hall, 2006; Kivistö, 2007). As a result, the agents inadvertently control the decision-making process, through misrepresentation.

Within the principal-agency relationships, one party has more power over the other party. This is because one party controls the information and ultimately controls the decision making in the relationship. Another study by Kivistö (2005) outlines the problem of adverse selection in higher education systems. The problem of adverse selection is evident in the fact that institutions in a Scandinavian model compete for funding. Therefore, the institutions may deliberately present false information to meet the financing needs. Furthermore, the government may be unable to verify the accuracy and authenticity of the institution's characteristics because of information asymmetry.

The problem of moral hazard is evident in situations where the agent fails to perform the assigned tasks. Kivistö (2005) argues that moral hazard is a permanent problem in the principal-agency relationship between the state and the higher education industry. The study outlines that examples of the effects of moral hazard situations in higher education agency relationships may include poor utilisation of the allocated funds. Furthermore, the institutions may fail to accomplish agreed goals and objectives. The author explains that the institution may fail to implement the government standards in situations such as curriculum development and staff recruitment. In essence, the institutions may pursue their private, rather than the collective interest.

The process of screening refers to activities done by principals to ascertain private information of the agent. For instance, an employer may verify an applicant's references through competency tests (Bergen et al., 1992). Within the higher education sector, institutions may signal information about teaching quality and research activities (Kivistö, 2005). This may signal to the principal that the institution will make appropriate use of the funds. On the other hand, the government may screen institutions in the following ways. They may scrutinise institutions' behaviour and their antecedents in previous relationships. For instance, the United Kingdom uses the Research Excellence Framework (REF) to assess the research quality of an institution. The study by Thomas (2001) revealed two key reasons for research assessments: one is to rate the quality and

performance of universities; in the second, the ratings were used in future funding decisions.

Hatsor (2015), using agency and signalling theory, examined the value of information in the higher education funding process. The author presented the idea that each student receives a signal on the finance options available to fund his or her higher education. For instance, the agent's previous educational achievements signal his or her innate ability and therefore the appropriate funding option best suited to the student. However, the study focused on financing options available to the student. This is quite unlike the process in the Libya model where the government operates and controls the funding process. The key finding of the research is that more information is usually harmful to the principal and agent.

The following studies suggest that specific and accurate signals to students may not benefit them (Hatsor, 2015; Schlee, 2001). For instance, sending more accurate signals may lead to a situation whereby some specific loans are under used, because they are less attractive. As a result, the borrowing terms may be quite costly. Similarly, Eckwert and Zilcha (2004) examined agency theory in the higher education sector in terms of investment decisions. They outlined the idea that more accurate signals destroy the risk sharing opportunities between persons in the contractual relationship. A more recent study by Eckwert and Zilcha (2010) also found that information symmetry enhances screening and improves human capital. The study also found that better access to information might also reduce investment in education.

Regarding this study, agency theory provides theoretical resources for investigating the relationship between the Libyan government as a principal and the public universities as agents. With different agencies within the Libyan government controlling the universities, the theory is able to present more about how such agencies are principals over the public universities; as well as being at the same time agents of the Libyan government. Generally, by this theory, the picture will expectedly become clear concerning how the Libyan government, through its several agents (ministries), dominates the public universities through direct governance, funding, and policy.

2.4 Resource dependency theory

El-Sheikh, Mah'd, Nassar, and Al-Khadash (2012) argue that the finance of higher education is not isolated from economic, social, political, and other issues. Gornitzka

(1999) ascertained that an organisation cannot exist in a vacuum – it has to deal with its environment for achieving its objectives. This interaction implies that the organisation is dependent on its environment for critical resources, such as monetary resources, raw materials, personnel, others (Gornitzka, 1999).

In general, resource dependence theory assumes that there is no organisation in the world that is enabled to provide all the resources it needs; this means it cannot develop all the activities necessary to be self-sustaining. Moreover, the theory assumes that survival is the essential aim of each organisation and the key to survival is the ability to obtain an uninterrupted flow of necessary resources from the environment (Pfeffer & Salancik, 2003). The organisation's environment contains formal and informal organisations, different people, and regulations that impact organisational survival; this means that an organisation often experiences conflicting requirements from the environment (Pfeffer & Salancik, 2003).

Moreover, these resources may be labour forces, raw materials, finances, production operations, or services that the organisation cannot undertake by itself. The resources can be characterised by the importance of the resource obtained to the recipient, and to what extent the organisation may continue to operate in the absence of such resource; when resource flows are unstable, this puts the organisation's survival under threat. Under such conditions, organisational efforts are directed to provide alternative resources for regaining stability and removing the source of the threat to the organisation (Slaughter & Leslie, 1997).

In the same context, organisations have various strategies they can employ to deal with the changing environment, and to decrease uncertainty. For instance, a reduction in government funding in public universities creates a particular level of uncertainty in their environment. Therefore, the university attempts to search for new sources by diversifying their funding through carrying out research and services for other clients (Slaughter & Leslie, 1997).

In general, Pfeffer and Salancik (2003) have identified three major criteria which are essential in determining the importance of resources to organisations. The first factor is to what extent the resource is important for survival and continued operation. The extent of discretion in the use of the obtained resource is the second factor. The third factor is whether an organisation has the freedom to receive from additional sources.

Nonetheless, based on a perspective of resource dependence that supposes that organisations that receive their finance from a single source will be significantly dependent on that supplier, such dependence might exercise a great impact on those organisations (Pfeffer & Salancik, 1978). Moreover, the resource dependence theory may help through providing an explanation for part of the possible relationship between resource suppliers and universities, since the relationship between both is not necessarily the linear one whereby those who provide funding to universities are those who exercise control over them (Pfeffer & Salancik, 1978; Pfeffer & Salancik, 2003).

Mudambi and Pedersen (2007) presented two important elements concerning resource dependency theory. First, each unit within a network has a role to play in handling uncertainty and firm survival. Second, the decision-making power belongs to units that minimise uncertainty and ensure firm survival in the relationship between the firm and the environment. Several scholars (Mudambi & Navarra, 2004; Pfeffer & Moore, 1980; Pfeffer & Salancik, 1977) believe that the unit that controls the firm's resources has the highest authority in the firm. Similarly, power is held by divisions adequately equipped for solving the critical environmental problems facing the organisation (Pfeffer & Salancik, 1977). As a result, the extent to which a firm can ensure its survival depends on the level of authority and power it has in the environment. It may be argued that the key focus of the resource dependency theory is power and survival (Pfeffer & Salancik, 1978).

The following pieces of research indicate that environmental characteristics may affect the internal dynamics of the firm. For instance, the study by Foster and Meinhard (2002) argued that the extent to which firms collaborate depends on organisational attitudes and environmental pressures. Specifically, the research revealed that factors such as board size and diversity affect the level of collaboration. The authors also found that board size might be influenced by environmental changes. Furthermore, Singer and Yankey (1991) found that smaller organisations were more likely to form alliances with larger organisations to ensure financial stability. This is because smaller organisations were usually unable to garner critical resources to ensure financial leverage. Similarly, Zajac, D'Aunno, and Burns (2011) investigated the extent to which, hospitals' internal characteristics increased the likelihood of collaboration and alliances between hospitals. Interestingly, these studies found that hospitals with more resources were more likely to form alliances than others.

The key problems in resource dependency theory include issues relating to the struggle for power and authority within the alliance. This is because firms seeking to collaborate, to ensure survival and prevent uncertainty may defer to the authority of more powerful firms. As a result, there must be a balance when forming alliances to ensure firm survival and continued autonomy as Gray & Wood (1991) argued. In the same context, Weber et al. (2002) identified that the higher education industry in the United States is characterised by uncertainty, poor student environment and limited access to resources. This is because of the limited funding mechanisms available to universities. It has been argued that the ability to secure resources is crucial in influencing an organisation's strategy (Greening & Gray, 1994; Oliver, 1991). The procurement of external resources is an essential component for the strategic and technical management of any organisation (Powell & Rey, 2015).

2.5 Human capital theory

Education is defined as a form of human capital (Acemoglu & Autor, 2011; Sweetland, 1996). The authors Acemoglu and Autor (2011) state that human capital is viewed as a stock of knowledge and the characteristics of the worker which contribute to his or her productivity. Similarly, Ishikawa and Ryan (2002) specify that an individual's human capital is significantly associated with his or her potential earnings.

Human capital theory is discussed from two perspectives, the micro and macro level. The micro level emphasises the benefits and rewards of education (Nel Páez & Teelken, 2016). The macro level emphasises the link between higher education and growth (Bloom, Canning, & Chan, 2006; Tilak, 2005). For instance, (Bloom et al., 2006) study which examined the macro aspect of human capital found a link between higher education and the rate of technological catch-up. However, the theory fails to capture the nuances of the challenges facing the development of higher education in Africa.

The themes within the human capital theory include the following. An investment in education guarantees future rewards. Individuals are more likely to have improved skills that would lead to an increase in production and ultimately financial benefits. A study carried out by Nel Páez and Teelken (2016) examined the development of higher education in Colombia. The key finding of the research revealed that investments in higher education do not guarantee improved statuses and future incomes. The study also suggested that the use of human capital theory should be broadened to accommodate a

wide range of issues. The authors also argue that human capital theory does not consider the impact that teaching quality has on the perceived rewards of higher education.

The scholars Gary S Becker, Murphy, and Tamura (1990) outline the following as benefits of investing in higher education. First, investments in higher education lead to an increase in skills, which leads to possible future benefits and higher wages. Second, as a result of improved productivity, there is the right environment that fosters innovation and ultimately stimulates economic growth. This is consistent with the study by (Bashir, Herath, & Gebremedhin, 2012), who also found that an increase in higher education funding stimulates economic growth. On the other hand, some studies have identified that an increase in higher education funding leads to an improvement in social welfare (Co-operation & Development, 2010).

Concerning the role of education in decreasing the unemployment rate, Tamasauskiene and Poteliene (2013) state that better educated individuals suffer less unemployment, work in more prestigious occupations and have more other social returns, such as honour status than their less educated counterparts. The results agreed with a study conducted by Baum, Ma, and Payea (2010) in the U.S.; the authors estimated that individuals with a Master's or Bachelor's degree have earnings that are 97% and 66% higher, respectively, than their peers who completed high school but did not enrol in university; their results show also the less educated individuals face more unemployment than their peers who graduated from higher education institutions.

2.5.1 Criticisms of human capital theory

A study conducted by Nel Páez and Teelken (2016) argues that human capital research needs to be regurgitated, to include the following, namely, differentiation between college and non-college graduates. It suggested also, a key gap in the higher education human capital research is limited empirical evidence. There are few studies that examine the association between institutional quality and graduates' future prospects. Interestingly, Zhang (2005) provided the idea that human capital theory provides the basis for assessing the quality of college teaching. Nevertheless, the authors concluded that the theory does not specifically provide for a framework to assess the relationship between the effect of the college quality and future earnings of graduates.

More recently, Winters (2013) emphasised the absence of quality issues in higher education research. The following pieces of research specified that institutional quality

was crucial in determining graduates' future earnings (Behrman & Birdsall, 1983; Ehrenberg, 2000). More recently, some studies (e.g. Hanushek & Wößmann, 2004; Suhonen, 2014; Zhang, 2005) found that higher education quality impacts graduates' earnings. The theory also assumes that human capital is the ability to acquire formal education. However, the authors Nelson and Phelps (1966) argue that adapting to a changing environment also affects the human capital of a state or organisation. As a result, individuals may strategically improve their human capital by adapting to their environment. For instance, employers require competent and skilled workers; therefore, job seekers may signal their credentials to increase their human capital (Spence, 1973).

2.6 Institutional theory

Institutional theory has been widely applied in the investigation of practices and structures in non-profit organisations, such as universities, various non-government organisations (Bealing, Dirsmith, & Fogarty, 1996; Decramer, Smolders, Vanderstraeten, & Christiaens, 2012; Kirby-Harris, 2003; Levy, 2006). This perspective is used to explain and understand the institutional pressures or factors that influence financial resource allocation for government universities in Libya. Specifically, it is employed to develop and interpret the research designed to provide answers to the following questions: (I) what are the factors that influence resource allocation of funding? (II) What challenges are facing the universities with respect to funding? The following section outlines the new institutional sociology perspective of institutional theory. Using institutional theory is appropriate to the Libyan context and to the aims of this thesis given the country-specific historical, cultural, social, economic and political factors that need to be considered when researching influences over resource allocation of funding for universities.

A set of studies (Decramer et al., 2012; DiMaggio & Powell, 2000; Hanson, 2001) divided institutional isomorphism into three types;

1. **Coercive isomorphism** is illustrated by the government agencies' influence on other organisations in the legal context, through the legislation enactment; so, the pressure stems from the problem of legitimacy. It could also be the result of informal and formal pressure exercised on organisations (DiMaggio & Powell, 2000). For example, Mizruchi and Fein (1999, p. 657) state that:

“Coercive isomorphism is driven by two forces: pressures from other organizations on which a focal organization is dependent and an organization's pressure to conform to the

cultural expectations of the larger society. Coercive isomorphism, at least in the first instance, is thus analogous to formulations of the resource dependence model, in which organizations are viewed as constrained by those on whom they depend for resource.”

Coercive pressures, according to Mignerat and Rivard (2009, p. 370), “arise from the legal environment of the organization and through the existence of standards, which can be imposed by structures on which the focal organization is dependent”. Regulatory agencies, government, parent companies, and customers are all instances of coercive pressures (Mignerat & Rivard, 2009).

Such coercive pressures in most cases are exerted by a government’s laws, policies, and government regulations (Decramer et al., 2012; Greenwood, Oliver, Suddaby, & Sahlin-Andersson, 2008; Souitaris, Zerbinati, & Liu, 2012). Legal or regulative pressures guide organisational actions by threat or coercion of legal sanctions (R. Scott, 1995). Concerning this regard (Townley, 1997, p. 261) mentions that:

The State, in particular, is identified as a force for coercive isomorphism. Using its role in grant or contract provision it may directly impose organizational models or exert more subtle pressures to conform.”

In the same context, Oliver (1988) added that coercive pressures usually occur when an organisation depends on others for essential resources that are crucial for long-term survival. He further adds that public agencies, schools and hospitals funded by the government provide good instances of political coercive pressures; and suppliers that depend on important buyers for their long-term survival can face this pressure.

Regarding the importance of the financing aspect as one means of putting pressure on organisations, and also, concerning funding which is the main issue within this thesis, (Townley, 1997, p. 261) argues that “*coercive – as the result of formal or informal pressure exerted by those organisations on which there is (usually financing) dependence*”.

Moreover, (Townley, 1997, p. 264) asserts that “*coercive isomorphism is most likely to occur where there is financial dependence, centralised resources with limited alternatives, and where the dependent organization has ambiguous goals or output. In the latter case, organisations are more dependent on external appearances for legitimacy, and have to demonstrate that they are acting on collectively valued purpose*

in a proper and adequate manner; this enhances their susceptibility to institutionalized myths and pressures for isomorphism.”

2. **Normative isomorphism** is created from within the organisation itself, as well as maybe being based on values and professional roles or norms (Zucker, 1987). A kind of homogenisation of management practices in various organisations is produced when the same professionals conduct these practices. Professional networks, university education, and professional training are three important sources of this type of isomorphism (Boland, Sharma, & Afonso, 2008).
3. **Mimetic isomorphism** arises primarily from ambiguity (uncertainty) within the environment which leads an organisation to form itself into other successful organisations. In the same sense with more details, Boland et al. (2008) revealed that, mimetic processes come from outside the organisation and are essentially driven by consultants. It is an important source of institutionalization because (a) in practice there are not many alternatives for management accounting practices, (b) competition pushes firms to follow similar courses of action, and (c) in general, leading organizations are advised by a small number of consulting firms, implying that a limited set of alternatives effectively followed.

2.6.1 New institutional theory

New institutional theory is based on Scott (2014), who argued that there are two generations of institutional theory, old and new institutionalism. The old version had a descriptive nature concerning the investigated phenomenon, and the theory did not provide such rich theoretical insights as the new theory, which concentrates on the relationship between organisations and their environment (Sandhu, 2009). New institutional theory emerged in the 1970s. From a macro-perspective, Berger & Luckmann (1991) developed a theory that organisations are subject to regulations and rules for gaining legitimacy for their activities and to confirm their long-term survival. Suchman (1995, p. 574) presented a definition of legitimacy as “a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions”.

According to new institutional theory, it is the search for resources and legitimacy that explain why particular organisational procedures and forms are diffused across organisations operating in social sectors, similar settings, similar environments

(Håkansson, Kraus, & Lind, 2010) or organisational fields (DiMaggio & Powell, 2000). Therefore, organisations are driven and guided by external institutional pressures to form procedures, structures, and practices similar to other organisations that exist in their environment. (DiMaggio & Powell, 2000) argued that organisations are subject to regulative procedures to conform for legitimacy. Therefore, an organisation's conformity with predominant social effects, standards, and traditions in the external environments will lead to homogeneity among organisations in practice and structure; also, (DiMaggio & Powell, 2000) suggest that organisations become increasingly similar.

However, there is a difference among scholars concerning the description of such process; for example, (DiMaggio & Powell, 2000) argue that the concept that best describes the process of homogeneity in organisational forms and practices is "isomorphism", while Carpenter & Feroz (2001) presented this process as "organisational imprinting".

Consequently, public bodies such as public universities that are mainly funded by the state are expected to be subject to coercive pressures (Boland et al., 2008; Gonzalez, Arquero Montaña, & Hassall, 2009; Levy, 2006; Townley, 1997). Moreover, studies investigating the impact of politics on universities in other developing countries illustrate that the educational process is (negatively) affected by government intervention in the affairs of universities (Kirby-Harris, 2003; Teferra & Altbach, 2004; World Bank, 2000). Notably, (World Bank, 2000, p. 63) convened by the UNESCO and the World Bank on higher education in developing countries, mentions that:

"The tendency of politicians to intervene in higher education left many institutions hostage to factional policies, with decisions on student selection, faculty appointments and promotions, curriculum design, and similar matters being made on political grounds rather than on merit. In addition, many country leaders undoubtedly saw universities as sources of political danger, with students playing a relatively active political role. Governments may fear students because they know that these young people could, under certain circumstances, overthrow a regime."

Jung and Moon (2007) believe that governments often provide funding resources to non-profit organizations in return for public service delivery through cooperative mechanisms such as subsidies, grants, and contracts. Due to the nature of public monies, government regulations are attached to funding under the rubrics of public interest and accountability as well. Government involvement and regulation are often seen as two sides of a double-

edged sword, reducing their autonomy in program development and financial management, and interrupting the operations of non-profit institutions. They mentioned that “*government regulation and involvement are often viewed as two sides of a double-edged sword, interrupting the operations of non-profit organizations and reducing their autonomy in program development and financial management*” (Jung & Moon, 2007, p. 206).

Nevertheless, Froelich (1999), found that public funding usually helps non-profit institutions achieve institutional legitimacy through its impact on recognition and reputation; and also, on the financial stability of institutions. Therefore, although public funding reduces the institutional autonomy of non-profit organisations, it helps them establish their legitimacy and reputation. Froelich (1999) provides more explanation on organisations not entirely autonomous entities regarding them pursuing desired goals at their own discretion. Rather, organisations are constrained by their resource needs from the environment. The degree of dependence on the environment depends on the concentration and importance of the resources provided.

Therefore, new institutional theory can present a valuable insight into understanding the pressures and influences on resource allocation of funding for Libyan public universities. For example, Libyan government agencies are significant institutional constituents of Libyan universities because they provide legitimacy to universities through their funding, and provide universities with resources that ensure their survival; as the distributors of financial allocation for universities among the Libyan universities system, and also, within government sectors (health, education, security, transportation, etc.), this makes the universities susceptible to various pressures, whether formal or informal.

2.7 Summary

An overview of the theoretical literature concerning higher education funding has been provided in this chapter. It is not one theory, but rather a combination of the theories reviewed, that works best at explaining the processes behind higher education funding policies; moreover, to explain how Libyan higher education funding policies are formed. Agency theory, resource dependency theory, human capital theory, and institutional theory aim to provide a complementary perspective concerning higher education funding. Besides, the theories were applied to the funding process and the intricacies of the benefits and contrasting perspectives of the theories were discussed. Furthermore, the chapter also

encapsulates the idea that no one single theory can address the funding process mechanism.



Chapter 3 - An Overview of the Libyan Context

3.1 Introduction

The main purpose of this chapter is to review the socio-economic characteristics of Libya such as the societal, cultural, historical, political and economic situation in order to reach a better understanding of the context of the study. Therefore, understanding the role of these factors in the mechanism of education funding and work behaviours of managers' institutes will help in ascertaining the development needs of Libyan higher education.

This chapter begins by providing a brief background of Libya, presenting its geographic location, social aspects, as well as the political and economic background of the country. It then proceeds to highlight the historical development of the Libyan education system in general, and discuss in-depth analysis of higher education in particular and explain its current structure, funding and the issues involved. The current study reviews previous studies that have been undertaken by several researchers into Libyan education in general, focusing particularly on improving higher education in Libya.

The following sub-sections introduce a brief review of the Libya background including the societal, traditional, cultural, political, and economic aspects of Libya as an essential step and necessary basis seen by the researcher to obtaining a better understanding of the education environment in the country. The next discussion aims at providing visions about Libya in terms of its geographical location; the characteristics of the society; and the political as well as economic environments.

3.2 An overview of Libya

Libya, as shown in the map below, is located in the centre of the North Africa region covering an area of approximately 1,760,000 km², making it the fourth largest country in the African continent, and is about seven times the size of the UK. Libya is bordered by a long coastline with the Mediterranean Sea (with a 1,990 km) to the North; Egypt (with a border of 1,115 km) to the East, Tunisia and Algeria (with a total border of 1,441 km) to the West, while Niger, Chad and Sudan (with a total border of 1,792 km) constitute its Southern boundary (World Bank, 2016) .

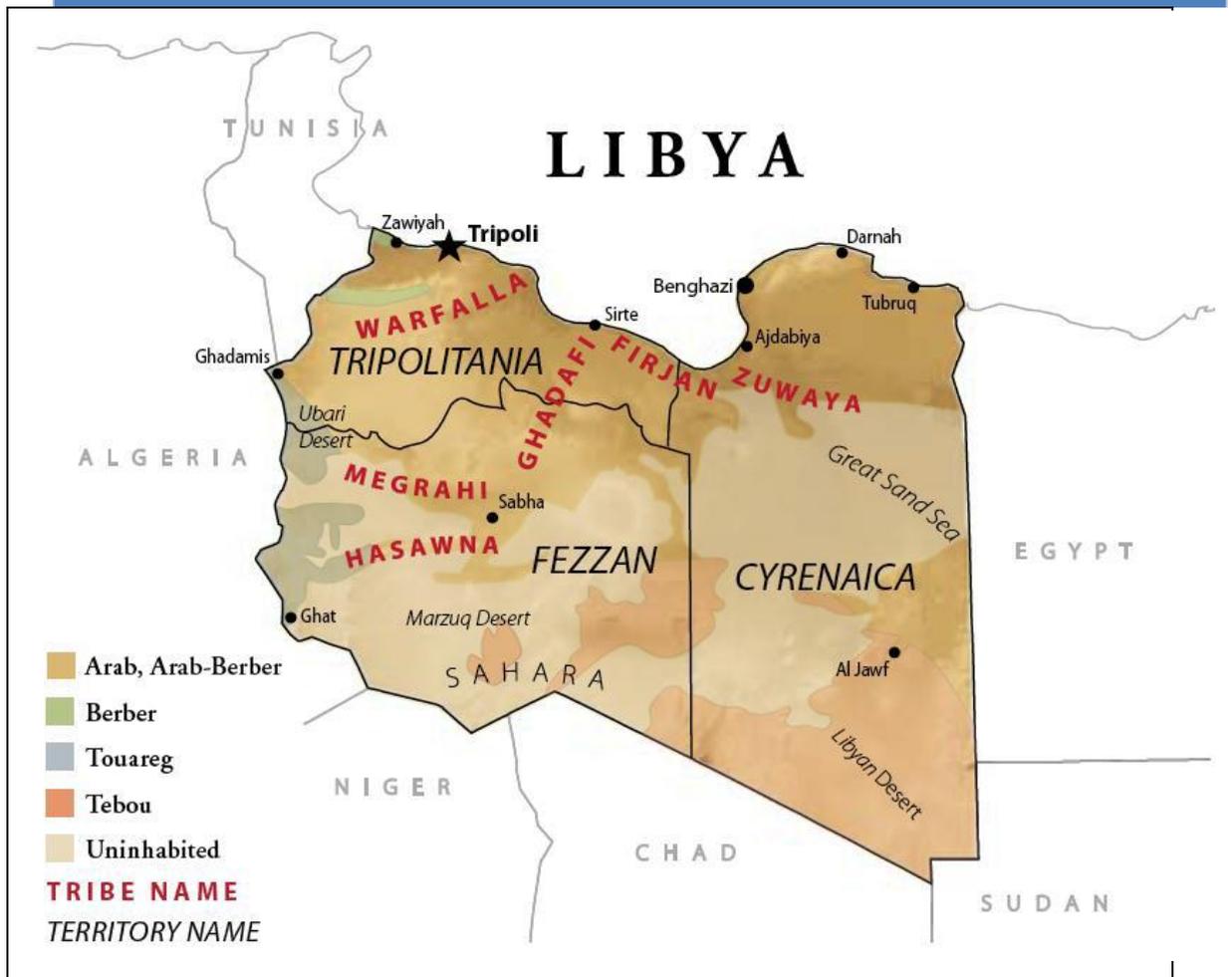


Figure 3-1 Libyan map

Source: (Smits, Janssen, Briscoe, & Beswick, 2013, p. 61)

Historically, Libya is made up of three regions (provinces) with the total population estimated at about 6,355,112 people in 2014, about 78% of whom live in cities; moreover, most of the population (about 86%) live in the coastal strip next to the Mediterranean Sea (World Bank, 2016). The western region is situated on the Mediterranean shore in north-western Libya, where the majority of Libyans live; the east region is the largest of the three territories, and occupies the entire eastern half of the country, touching the Mediterranean but also extending into the Sahara and southern region (Fezzan), which is mostly the Saharan desert (Otman, 2007).

Libyan history has always had an extreme strategic value and Libya has been colonised several times by several large empire nations in the past five centuries, from different cultures and parts of the world, such as: Phoenicians, Romans, Greek, Islamic empire and Ottoman Turkish which had negative impacts on the stability of the country and its institutions including the education sector (Tipchanta, 2012). Italian occupation of Libya

took place in 1911, and continued for a period of time exceeding three decades until 1943. Following the Italians defeat by the allied forces at the end of World War II, Libya was administrated for a brief period by the British army in control of the north of the country while the south was apportioned to the French forces. A few years later, on the 24th December 1951, Libya achieved its independence and became existent within its current boundaries as the United Libyan Kingdom ruled by King Idris el Sanussi (G. Simons, 2003; Vandewalle, 2012).

Libya is a member of the MENA region and also the Maghreb Arab United which, refers to the Western Islamic world of northwest Africa, which comprises Morocco, Algeria, Tunisia, and Mauretania and also, a Mediterranean coast group; also, it is therefore supposed to share characteristics with other Middle Eastern and North African Islamic states. It is an African country, but has a very different culture and environment to most Sub-Saharan African countries (Black Africa). In terms of the economic condition, Libya is a transition economy, moving from bureaucratic and state control (termed by then government as socialist model) to a more liberal, market based economy, while in the society aspects Libya is an Arab country, sharing history, language, religion, and culture with its North African neighbours and countries such as Arab and Gulf countries. Furthermore, Libya is an Islamic country (overwhelmingly Muslim), and the values and attitudes of this religion affect the way people support each other and interact in all contexts, including work (Otman & Karlberg, 2007).

Table 3-3-1: Libya’s demographic structure

Population	6,411,776 (July 2015 est.)
Population Growth Rate	2.23% (2015 est.)
Birth Rate	18.03 births/1,000 population (2015 est.)
Death Rate	3.58 deaths/1,000 population (2015 est.)
Age Structure	0-14 years: 26.52% (male 869,583/female 830,751) 15-24 years: 17.77% (male 588,243/female 551,139) 25-54 years: 46.62% (male 1,567,608/female 1,421,246) 55-64 years: 4.97% (male 163,133/female 155,703) 65 years and over: 4.12% (male 132,740/female 131,630) (2015 est.)
Median Age	total: 28 years male: 28.2 years

	female: 27.8 years (2015 est.)
Sex Ratio (Total Population)	1.08 male(s)/female (2015 est.)
Ethnic Groups	Berber and Arab 97%, other 3% (includes Greeks, Maltese, Italians, Egyptians, Pakistanis, Turks, Indians, and Tunisians)

Sources: adopted from (Kandemir & Gümüş, 2017, p. 23)

3.2.1 Political background

Since its Independence in 1951, Libya has witnessed and experienced a number of political and economic events that have left profound imprints on Libyan administration as well as on the Libyan society. Following its independence The United Kingdom of Libya was a federal system state, comprised of its three historical territories (Cyrenaica, Tripolitania, and Fezzan). Each of these three provinces has its own regional government. This means that the business environment in terms of administrative control, business regulations and so on were mainly subject to the province's government. However, within a few years of discovering high quality oil in 1959, a central administrative control unified legal structures and a harmonisation of business regulations for the whole country was demanded by the international oil companies (Masoud, 2013; Tipchanta, 2012). As a result of such pressure, the King abandoned the federal system, and therefore a new form of the country named 'The Libyan Kingdom' was established in 1963. This resulted in one central governmental entity with one political administration for the whole nation (Gamaty, 2012).

During the monarchy period from 1951-1969 the responsibility for setting down general policies, administration and finance of the higher education sector were managed by the government through the ministry of education and the rector, who was appointed by royal decree at the nomination of the board of governors and recommendation of the ministry of education. The government directly financed and managed the Libyan university which was the only higher institute operated in the country at that time by setting its general policies and the administration of its affairs. The state funds were transferred from the government budget to the university budget which was considered a part of the ministry of education budget (Teferra & Altbach, 2003).

However, in the early period of the monarchy from 1952 to 1961, the financial resources were inadequate, and besides the local resources the government was supported by some

foreign aid agencies such as UNESCO to facilitate the difficulties of the funding higher education sector. Despite the funding difficulties and the limitation of available finance in the decade of the 1950s, higher education was free for all Libyan citizens with the purpose of encouraging as many students as possible to enter the university in order to meet the national need for a skilled work force and higher degree of management staff (N. Clark, 2004). These economic difficulties and financial limitations did not continue long. In the beginning of the 1960s, the Libyan economy witnessed major changes as a result of discovering oil and also exporting it which made the country the fourth largest exporter of petroleum in 1970.

The oil revenues improved the Libyan economic conditions and facilitated the funding difficulties in all economic sectors including higher education, and enhanced other financial resources such as taxes, customs duties and income from other national sources, which became one of the main sources of financing the education sector (Jones, 2008).

Due to the sudden availability huge oil revenues, the government did not need any foreign aid. Since then, the oil revenues contribution to total revenues increased sharply from 7.8% in 1962 to 76.5% in 1968 which allowed the government to expand on the higher education sector. The expanding on education reached 20.6% of the annual expenditure of 100 million Libyan Dinar in 1968 (Otman, 2007; Otman & Karlberg, 2007). Nevertheless, the financing policy for higher education during the early period of monarchy seems unclear, with many of its decisions having been made or influenced by foreign experts, because of the limitation of local qualified and expert staff and the weakness of the management in Libyan government institutes (Otman, 2007; Otman & Karlberg, 2007).

In September 1969, the Monarchy regime was abolished by a military coup which led to the beginning of the proclaimed new Libyan Arab Republic ruled by the Revolutionary Command Council (RCC) (The World FactBook, 2016). After this, the Libyan political system was ruled by Gadhafi regime from 1969 until 2011, influenced by his own vision and ideology, which was a combination of state control, tribalism, and Islam (The World FactBook, 2016).

In 1977, a new political system was proclaimed, based on the People's Committees (PCs) and, theoretically, the country was governed by Libyan citizens themselves, "the authority of the people", through direct representation through a large number of local and regional

PCs, while the legislative body of the government was the General People's Congress (GPC), equivalent to the parliament, which was officially responsible for formulating policy and passing laws for the country in accordance with the decisions of the PCs (Masoud, 2013). However, in reality, the nation was, directly or indirectly, governed by an authoritarian regime ruled by the leader himself and his trusted close loyalists (Masoud, 2013).

The continuous political changes in the Libyan context have left a profound impact on the country's administration system environment. Higher education, much as other economic institutions, witnessed many changes in terms of structure and policy in a way that fitted with the Libyan leader's political philosophy and approach to ruling the country (Taghavi, 2013). For example, the entire higher education sector was managed by individual Universities' PCs, each being led by a secretary (Dean). Faculties were managed in the same way, each Departmental Head being a member of the Faculty's PC, and each secretary of each Faculty's PC being a member of the University's PC. The students were also members of the People's Committee and involved in managing University affairs; this system lasted for around eight years from 1983 to 1991. According to the law of the People's Congress and People's Committee, membership of the University's PC and the Faculty's PC were appointments for three extendable years (Aldoukalee, 2013).

Moreover, concerning the intervention of the government in universities affairs, a report issued by the British council mentioned that "Between 1969 and 2011, Muammar al-Gaddafi's regime made several violent incursions into the university, arresting pupils and faculty members and, most infamously, in the 1970s, hanging students, who were campaigning for academic freedom, from the gates of the university and in the gardens of Benghazi cathedral" (Rose, 2015, p. 5).

In the last decade of the republic system (2000-2011), a significant change in the political ideology of the Libyan regime was witnessed. The government's deep-seated socialist principles, for instance, began to shift slightly to a more relaxed manner towards global capitalism (Abubrig, 2012). Relationships started to be rebuilt between Libya and Western nations. According to (The World FactBook, 2016), the government made important steps in normalising relations with the Western world in the 2000s. Nonetheless, while relationships were being normalised abroad and there was some

movement towards the privatisation of large state industries at home and improvement in all economic sectors including the higher education, the so-called the “Arab Spring” spread across the Middle East and North Africa including Libya, which led to downfall of the government in 2011. Libya was then led by the National Transitional Council (NTC) for a short period; the NTC was formed in Benghazi in March 2011 with the stated aim of overthrowing the Gadhafi regime and guiding the country to democracy. Subsequently, in July 2012, a new political entity named The General National Congress (GNC) was elected and took over legislative powers from the NTC in order to govern the country. In 2014 a new political entity named the parliament was elected and supposed to take over legislative powers from the GNC in order to govern the country; since then, however, the country has struggled to achieve peace, as mentioned by The African Development Bank (Outlook, 2015).

In short, the above gives a presentation of the examination and exploration of an overview of political history in order to help understand the shape of historical and political changes in Libya, hence assisting readers to identify the potentials of the political changes in administration and funding of the higher education in the country. It can be said that the Libyan administration system was characterised by a state of instability as it was frequently changing over time.

3.2.2 The Social Aspects

Libya is unevenly distributed and small populations make it one of the most sparsely populated countries of the world (Otman & Karlberg, 2007). However, Libya has a relatively youthful population, 63% of the population are of working age (16-64), with 35% under the age of 18. It is continually characterised by a high fertility rate (The World FactBook, 2016) and there has been a rapid growth in the Libyan population which has increased approximately six times since independence in 1951, making it among the fastest growing populations in the region with an average of 2.5% in the last two decades. Education, at the time of the Independence, was in a state of infancy. At independence, in terms of university graduate students, for example, the whole country had only a very limited number of university graduates (Gamaty, 2012). Nevertheless, remarkable efforts have been made since Libya’s independence and the government has continuously adopted a compulsory and free public education policy. Libya’s population today is

mostly educated; more than 91% of the adult population is literate, making the country's literacy rate one of the highest in Africa, as reported by the British Council (Rose, 2015).

In terms of levels of social development indicators, Libya is similar to or better than the average in the Middle East and North Africa (MENA) Region and the rest of the world, Latin American and Caribbean Countries, South Asia, and Sub-Saharan Africa. For instance, Libya's Human Development Index (HDI) (Jahan, 2016, p. 199) for 2016 achieved 0.716, which places Libya within a high human development category at a ranking of 102 out of 188 countries. From 1990 to 2015 Libya's HDI value improved from 0.681 to 0.761, and then slightly decreased to reach 0.716 in 2016. Libya has shown improvement in most of the indicators of the HDI during this time.

Libyan social environment is characterised by many factors such as: the extended family, clan, tribe, village and Islamic religion (Aagnaia, 1997). In terms of its ethnic groups background, the Libyan population is composed of several distinct groups, mainly, Arabs and Berbers, who represent nearly 97% of the total Libyan population and can be identified as Arabic-speaking Muslims of mixed Arab and Berber ancestry and culture; the remainder is mainly made up from other indigenous minority peoples, such as Greeks and black Africans. Berber languages are spoken beside the Arabic language by a small minority of the population (mainly in a limited region in the North West of Libya, but Arabic is the official language in the country; English and Italian are spoken and widely understood by the Libyan population in major cities, United Nations Development Programme (UNDP) (2017).

In the absence of a real civil society, the Libyan population can be described as traditional regarding attitudes where tribal identification and influence is one of the most important characteristics of Libyan social environment that played, and still continues to play, a major role within people's life in all contexts, including social relationships, behaviours and work. The relationships based on tribe or clan are dominant and heavily influence the ways in which managers perceive they should function within their managerial tasks in the Libyan business environment. Furthermore, the tribal nature of Libyan society was effectively used to aid in controlling the nation (Al Obeidi, 1995).

Moreover, families (the nuclear as well as extended families) are considered as one of the core units that the structure of Libyan society is built upon (Gamaty, 2012). In addition to loyalty to their families, tribal loyalties are also one of the fundamental aspects within

Libyan culture; the society is bound by these two types of loyalties (Jones, 2008). All Libyans belong to a family that extends to the larger units such as clans and tribes. The tribal leaders have no legal status but their social influence is very strong; their decisions are respected and their help is sought in situations such as resolving disputes and advancing careers. While tribal leaders are usually elderly, they have many contacts in large organisations and political entities, which they are able to influence or ask for favours. It's therefore expected that in such a society the managerial positions are commonly influenced by family contact (locally called *Wasta*) (Aгнаia, 1997).

However, the vital role of tribes, alliances and social relationships in offering to maintain stability and communal peace in the country particularly during political crises in 2011, but also later the fundamental disagreements among the tribal, political and religious fault-lines, makes the task of governance and political transition extremely challenging and has opened up the door for new regional tensions over access to hydrocarbon resources and political representation. Some of the militia groups operating under the umbrella of various government ministries have resorted to force to ensure their agendas are followed and their interests protected (Outlook, 2015).

Islam is officially the state religion, and more than 97% of Libyans are Sunni Muslims, this adhering to Islam makes Libya a very homogeneous society in terms of its religious makeup; whilst the rest includes a small Christian community that mostly consists of foreigners (Sawani, 2012; The World FactBook, 2016). The Islamic Religion has a serious role in shaping Libyans' life state including work. Indeed, it therefore appears to be responsible for forming almost all cultural values and attitudes. Furthermore, the religion of Islam is seen as having a fundamental role within Libyan cultural life as well as economic and political aspects. It provides both the basis for all the State's rules and policies as well as a spiritual guide for individuals (Hajjaji, 2012) .

In short, the brief examination and exploration of the Libyan society, culture and social environment offered in the above section helps to understand the shape and functioning of administration organisations within the country, hence assisting readers to identify the influences of the cultural backgrounds including social relationships and behaviours in the administration and process of decision-making.

3.2.3 The economic situation

Since Libya became independent in 1951, up to 2011 when the political crises occurred, Libya experienced two completely different kinds of political ideologies as well as economic orientation and perspectives. While the Sanussi Monarchy regime (1951–1969) was seen as a strongly pro-Western conservative monarchy, the republic system led by Gadhafi's regime (1969–2011) was profoundly committed to socialist principles. Clearly, Libya's economy during the Sanussi regime was mainly capitalist; the private sector was supported and existed widely and governmental interference was limited; the public sector was also seen but in cases that required large-scale investment (Vandewalle, 2012). After sustainable reserves of oil in Libya were discovered in 1959, it had become one of the major exporters of crude oil in Africa and the Middle East (Shernanna, 2013). Indeed, at the end of sixties, Libya was able to daily export three million barrels of oil with an annual income per capita reaching \$2000 (Gamaty, 2012). On the other hand, the economy after the military coup became an economy based on the ideology of socialism with no significant private sector and a heavy state involvement in ownership and the working business environment (Aljbiri, 2013).

During the 1970s the economic activities changed from a market economy to a socialist economy, to match the leader's 'third universal theory'. The government worked to clear the market economic and move towards a socialist centralised economy. The role of the private sector was totally clear by the end of the 1970s, and the socialist economy was declared as the best economic system for Libyans (Gamaty, 2012). The socialist orientation adopted during the 1970s and 1980s had a devastating effect on the Libyan economy and resulted in the state controlling virtually all economic activities, oil and gas, banking, housing, industry, import-export, construction, transportation, among many others (Vandewalle, 2012). The government became the main player, if not the only one, in investing and producing all goods and services in the economy of Libya (Shernanna, 2013).

In the early 1980s the oil market dropped, and Libyan oil revenues went down from \$21 billion in 1980 to \$6.5 billion in 1986. This loss of income adversely affected the state's ability to continue with its previous policy (Vandewalle, 2012). As a result, since the mid-1980s, the government's attempt to move away from state ownership of production and services towards private ownership and free enterprise by declaring economic reform

which would lead to a new era of political and economic liberalisation was followed by another wave of economic reform designed to achieve a considerable reduction of the state involvement in the Libyan economy and a significantly extended role for the private sector instead. Nonetheless, it was witnessed that only small public firms in 1987 had been privatised. Further steps towards privatisation and trade liberalisation occurred in 1992, as a result 4,845 public productive units, mainly from the agricultural sector, accounting for a total of LYD 167.8 million that were transferred into the private sector between 1989 and 2001, while 115 public organisations accounted for more than LYD 2 billion were transferred in the period 2004 to 2010. Despite the privatization policy adopted in the last two decades, most of Libyan economic activities remain tightly controlled by the state, which indicates no real signs of reform, which means these reforms did not meet the government aims (Gamaty, 2012). Here, it is worth stating that the main reason for not gaining real economic reform in Libya, despite a number of attempts, seems to have been because of a lack of political will, as well as the absence of the necessary administrative or institutional capability (Shernanna, 2013; Vandewalle, 2012).

Libya is a developing country with a small population and huge natural wealth and considered an upper Middle Income Country and its economy is heavily dominated by the oil sector, which generates almost all of its export earnings (The World FactBook, 2016). Libya produces around 1.6 million barrels/day of oil, roughly in 2010 equal to 2% of the global production (IMF, 2012). The substantial income from hydrocarbons coupled with a small population affords Libya one of the highest per capita in Africa with \$11.934 in 2010, and higher than the MENA average (World Bank, 2017).

As a consequence of the on-going conflict, in July 2011 the oil production fell to 22,000 barrels per day, although the oil output was restored rapidly by the end of 2011 to half the pre-conflict level (IMF, 2012). Therefore, the 2011 civil war has dropped the economy by 41.8% compared to GDP growth of 2.9% in 2010. Due to the recovery of oil production rates, oil exports increased by 20.1% and 9.5% in 2012 and 2013 respectively; however, despite the oil sector's improvement, its output is still less than the levels before the war (Etelawi et al., 2017; IMF, 2012). Moreover, per capita income decreased to less than \$5,000 in 2016 compared to \$13,000 in 2012. Another impact is the inflation rate that reached 26% in 2016, up from 10% in 2015, driven by high prices of food (World

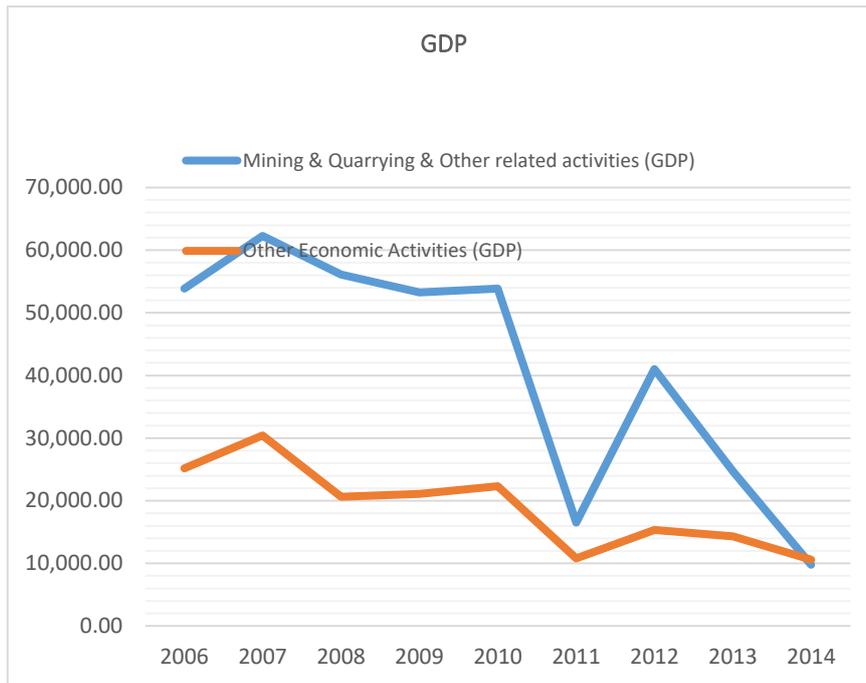
Bank, 2017). The following table show several Key macroeconomic indicators, 2006-2016.

Table 3-3-2: Macroeconomic Indicators

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
GDP at Constant Prices (In Millions of LYD)	79,029.9	92,693.6	76,746.7	74,341.1	76,191.5	27,287.4	56,355.1	39,016.3	20,388.2	-	-
Mining & Quarrying & Other related activities (GDP)	53,867.8	62,282.6	56,114.1	53,255.7	53,872.4	16,499.9	41,001.5	* 24,710.6	* 9,777.6	-	-
Other Economic Activities (GDP)	25,162.1	30,411.0	20,632.6	21,085.4	22,319.1	10,787.5	15,353.6	*14,305.7	*10,610.6	-	-
Annual GDP Growth Rate		17.3	-17.2	-3.1	2.5	-64.2	106.5	-30.8	-47.7		
Per Capita GDP (\$)	9660	11711	14226	9436	12150	6558	14203	10034	5403	4708	5193
Annual inflation rate %	1.5	6.2	10.4	2.4	2.4	15.9	6.1	2.6	2.4	9.8	25.9
Total revenues (In Millions of LYD)	-	53366.3	72741.2	41785	61503.1	16813.3	70131.4	54763.6	21543.3	16843.4	8595.2
Oil Revenues	-	48638.3	64417.0	35347.0	55713.0	15,830.1	66,932.3	51,775.7	19,976.6	10,597.7	6,665.5
Non-Oil Revenues	-	4728.0	8324.2	6438.0	5790.1	983.2	3,199.1	2,987.9	1,566.7	6,245.7	1,929.7
Total government expenditure (In Millions of LYD)	21378	30883	40778.1	29236.8	38262.3	21994.5	53941.6	65283.5	43814.2	43178.9	28437.9
Administrative Expenditures	10339.0	11890.0	11874.8	10252.9	15121.3	17,580.1	36,733.0	42,598.5	26,892.0	29,196.1	21,315.8
Development Expenditures	11,039.0	18,993.0	28,903.3	18,983.9	15,121.3	0.0	5,500.0	13,276.5	4,482.4	4,411.9	1,398.3
Subsidies	-	0	0	0	8019.7	4,414.4	11,708.6	9,408.5	12,439.8	9,570.9	5,723.8
Trade Balance	39,467.0	40,028.0	51,089.0	18,816.0	29,777.0	9,590.0	44,650.0	15,199.7	-14,120.7	-7,687.6	-2,643.0
Oil exports (Millions of Barrels)	1.4	1.5	1.4	1.3	1.3	0.3	1.3	0.9	0.3	0.3	0.3
2- Unemployment rate (%)	15.25	15.13	14.95	14.77	14.72	13.48	16.02	16.04	16.06	16.08	15.96

Sources: 1- Central Bank of Libya, Research and Statistics Department, Economic Bulletins (2013, 2016, &2017) <https://cbl.gov.ly/en/economic-bulletin/>

2- The World Bank (<http://data.worldbank.org/indicator/SL.UEM.TOTL.MA.ZS?locations=LY>)



Sources: designed by the researcher on the basis of Table 3-2

Figure 3-2 GDP

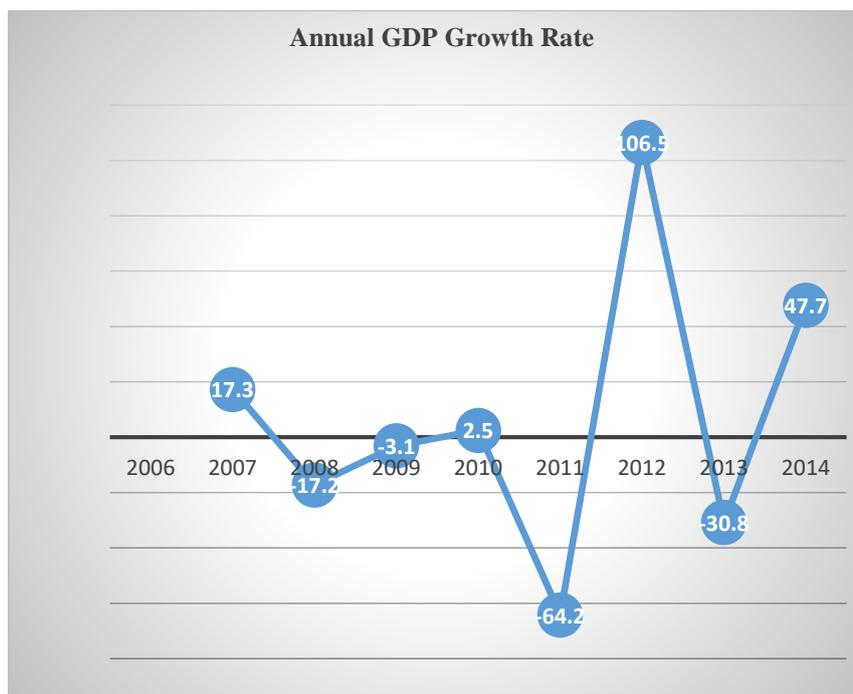


Figure 3-3 Annual GDP Growth rate

Sources: designed by the researcher on the basis of Table 3-2

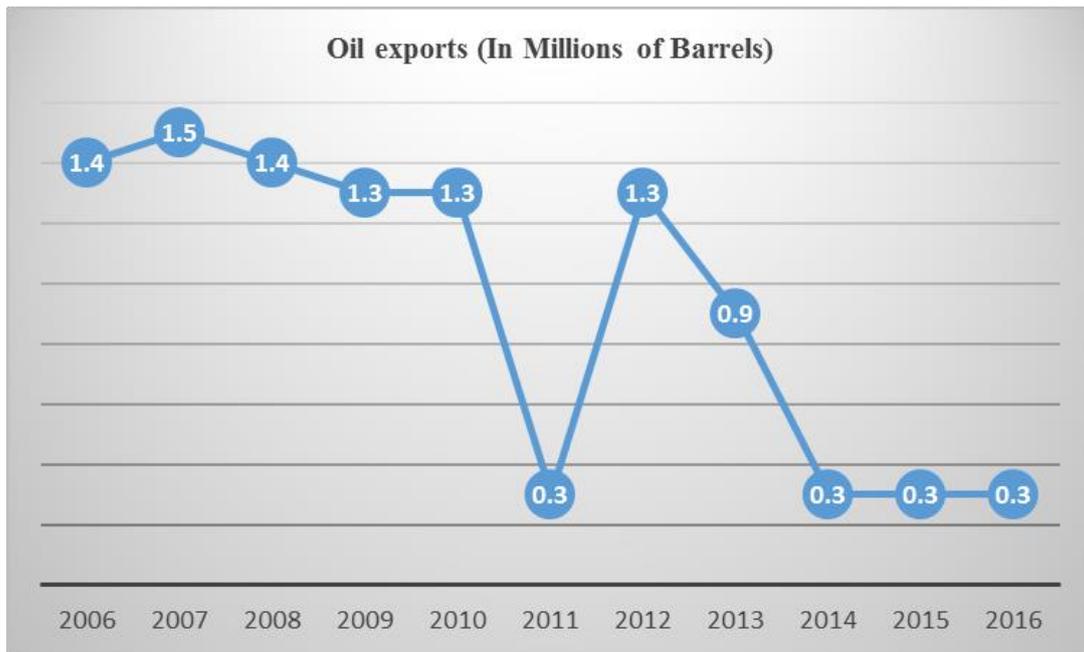


Figure 3-4 Oil exports

Sources: designed by the researcher on the basis of Table 3-2

The Gross Domestic Product (GDP) is mainly composed of oil industry output (share of 71% in 2010, followed by services sector, industry and agriculture respectively). The share of both manufacturing and agriculture has fallen since the lifting of sanctions, which enabled a rapid expansion of the oil sector. As table shows, the balance of payments have been generating significant surplus over the period. The government has been able to contain inflation at low levels for many years; primarily done through heavy food subsidies on flour, sugar, rice and vegetable oils (Shetwan, 2014). Finally, oil revenues, which historically represent around 91% of total government revenues, have been responsible for keeping government accounts in a healthy position. GDP growth fluctuates according to the price of oil. The earlier high rates of growth of GDP are shown to have slowed down from 9.5% in 1990 and rated at 2.5% in 2010, reflecting a 2.4% growth in the agricultural sector, 2.6% growth in the industry sector, and 4.6% growth in services (Tagliapietra, 2017)

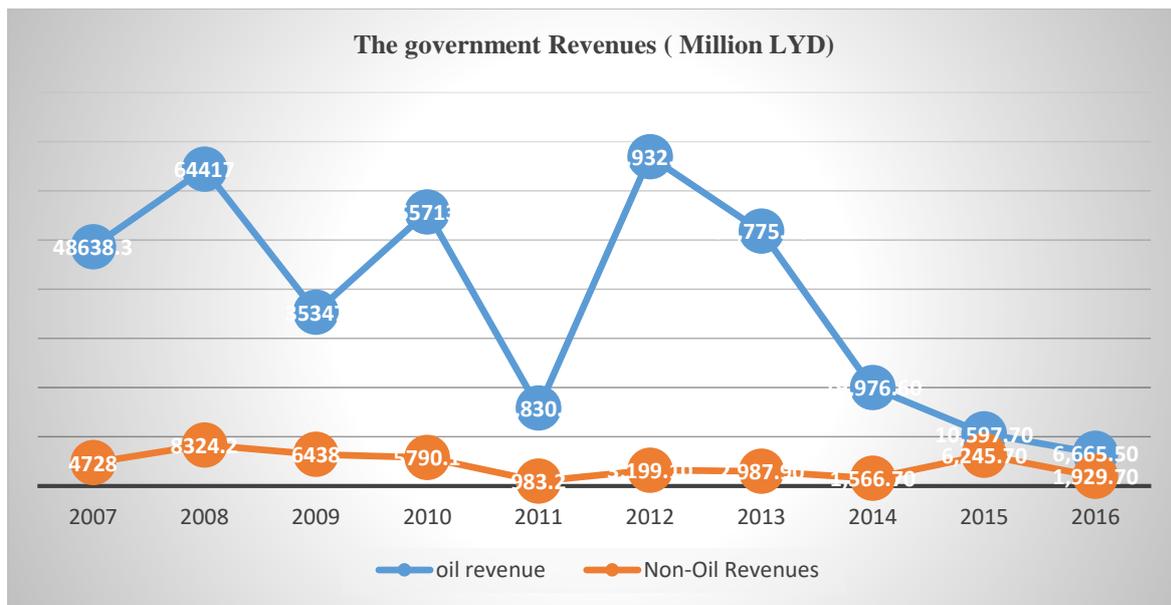


Figure 3-5 the government Revenues

Sources: designed by the researcher on the basis of Table 3-2

When considering the most important aspects of Libya’s economy over most of the last four decades, it has been characterised by loyalty on oil revenues with a low level of economic activity diversification and a high dependability on the government’s political ideologies, which left an effect on sources and mechanism funding of economic sectors including higher education. Indeed, the Libyan economy is seen as one of the least diversified economies in comparison to the rest of the oil producing countries, including the North African region, and the country failed to reach its economic diversification target and achieve its objective of reducing its dependence on oil in all past economic development plans (IMF, 2007).

3.3 Education system – a historical journey

During the Ottoman Empire Libya, as many countries in the region, suffered from problems and difficulties in all sectors including education because of the limited resources for establishing education institutions. Religious education was the only type of education available for Libyans in the basic stage. However, Libyans who wanted to continue their study had to travel abroad to study in other countries such as Tunisia, Egypt, Italy and Turkey for higher education and this was financed by private and local charities. From 1911 to 1942 when the country was ruled by Italian occupiers, efforts were made by Italy and other foreign educators to introduce the modern system of primary and secondary education in Libya;

however, very little appears to have happened because of the conflict between Libyan fighters and the Italian army and there were no possibilities of establishing higher education (Alhawat, 1996) . Following a crackdown on mosque schools, by the end of World War I, the Italians invested a significant amount of funds to develop some primary and secondary schools in major cities, primarily promoting a bilingual teaching/learning style, but the education policies adopted by the Italian occupation were designed to serve Italian settlers not the Libyan population. By the end of World War II most of the schools were destroyed or shut down after the Italians were defeated (G. Braun & Jones, 2013).

During the British Administration (1943-51) all those Italian schools that had not been affected during the war were re-opened and a number of teacher training courses designed for women, aiming to enhance the teacher quality at primary and secondary levels (Deeb & Deeb, 1982). In evaluating the contribution of the British in primary and vocational education, despite a small number of such training centres, the diversion from religious schools to conventional schools was highly evident (Deeb & Deeb, 1982).

The evolution of the education system shows the remarkable progress achieved by Libya since independence in 1951, access to both basic and higher education. At the first year of independence, most Libyan people were not able to read and write. The educational ordinance that came into effect in 1952 clearly stated that primary education was free and compulsory to all Libyans. The first four years of free and compulsory primary and secondary education led to hundreds of high school graduates, hence a demand for higher education. The government adopted a series of educational policies and programmes aiming to improve the pre-university standards through teacher training programmes, new vocational and technical centres, and building more schools in remote areas of the country (Deeb & Deeb, 1982).

Today, about one third of the Libyan population (1.9 million) is enrolled in the education system in different stages (1.133 million in basic education in 3,296 schools, 0.355 million in secondary education in 682 high schools, 0.150 in vocational training in 74 technical centres, and 0.342 million in higher education in 12 universities). The number of such students has been growing at a phenomenal average rate of 2.5% per annum since 1975, Libya has achieved universal access for primary education, the intake ratio to the first year of primary education exceeds 100% for both boys and girls, and the gross enrolment ratios are 114% for primary education (Because of the early inscription and the adoption of domestic education), 124% for basic education, 81% for secondary education far exceeding the MENA average, which was

69% in 2002, and 38% for higher education (not including enrolment in the private sector of higher education and students abroad). Enrolments in higher education are high compared to middle-income countries. The only exception regarding access is to preschool education, which has only a 6% enrolment rate. This is due to the specificity of Gaddafi’s green book philosophy, which confirmed that public education in the early stages is one of the duties of the mothers and the family (World Bank & The International Bank for Reconstruction and Development, 2009). The percentage of the population aged 15-24 was between 21% and 24% during the period from 1990 to 2009, which indicated that a large number of the Libyan population was in the higher education age group (Bureau of Statistics and Census (2010)).

3.4 Structure of the Libyan education system

As can be seen in figure (4-1) below, there are three key stages in the structure of Libyan education: general education, vocational education, and higher education. In addition, there is a private sector, which is known as community education.

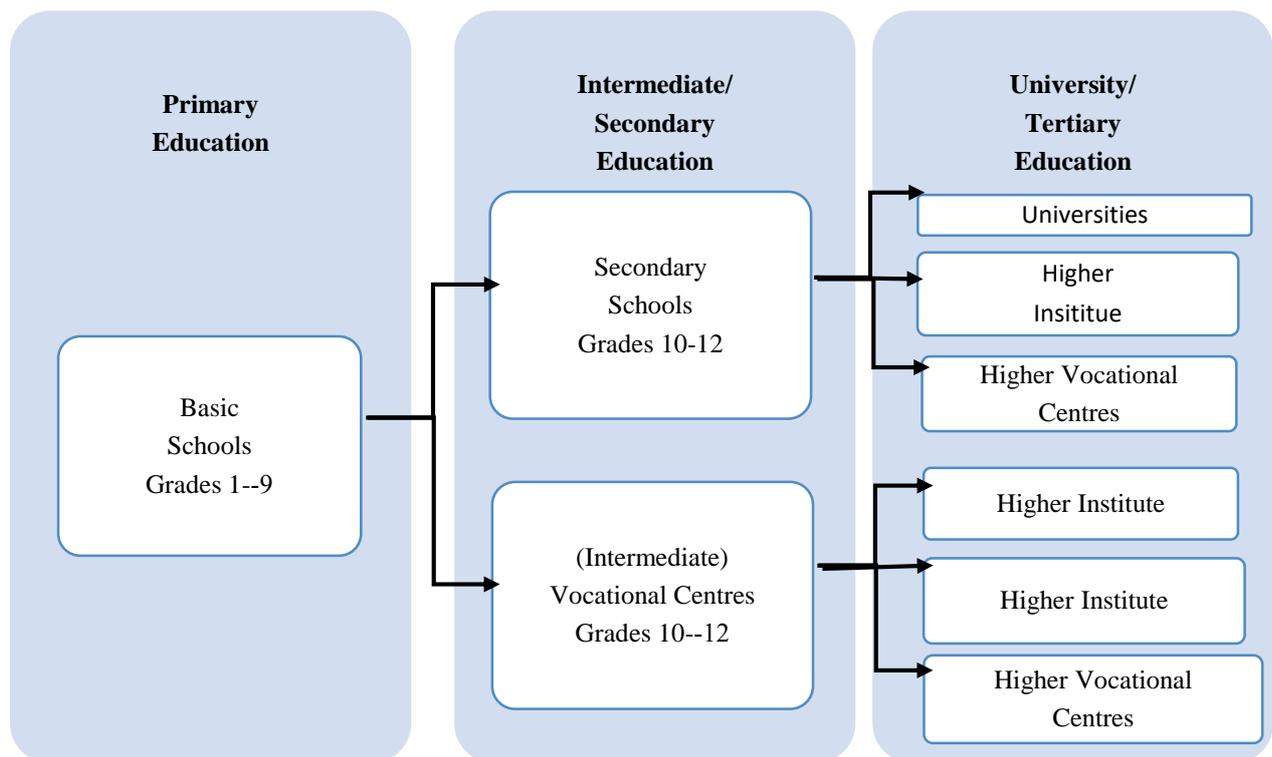


Figure 3-6: Structure of Libyan Education System

Source: adopted from Braun & Jones (2013, p. 76)

Following independence in 1951, the monarchy introduced educational reforms known as the 9+3 system divided into three sections of primary, preparatory and secondary; for which the first nine years of education are compulsory and are referred to as basic education, targeting all children aged six to fifteen years, followed by the three year cycles of secondary schooling for students aged fifteen to eighteen years (Alhawat, Alawami, & Saed, 2004).

In the 1990s, the education system was restructured. Currently pre-university schooling comprises four levels: pre-school children from four to six years of age, basic education consists of primary school and preliminary school for pupils from six to fifteen years of age, intermediate education for students aged fifteen to eighteen years, and higher education, which includes universities, institutes of higher education and technical centres. The basic level then allows students who drop out before completing the full nine years the opportunity to enrol in vocational programmes of one to three years in length. Intermediate vocational training centres train students for various skills-based professions. Vocational schools offer programmes for 44 different vocations in seven major fields while the study at higher education would take between three years at institutes and technical centres that award professional diplomas and up to six years for some university degree courses that award Baccalaureate, master degree or doctorate degree (G. Braun & Jones, 2013).

3.5 The Libyan higher education system

Higher education in Libya, as elsewhere, has been a priority in economic and social development programmes. The first higher institution was established in 1956; since that time, several objectives have been set as a result of recognition of the vital role that Higher education can play in developing Libyan society. This has been represented in serious efforts to increase student enrolment in higher education, as well as in securing equal opportunities of access to universities for males and females. The government has sought to expand horizontally in the establishment of universities and higher education institutions, (HEIs) (Vandewalle, 2012). As a result the number of enrolled students rose from 34 students in 1956 to 2,522 in the academic year 1968 just a year before the end of the monarchy system, then gradually increased from 13,417 students in one university in 1970 to 342,000 students spread over 12 universities in 2012, reaching a ratio of 4,600 students for 100,000 inhabitants (among the highest in the region), with the largest ones being the university of Tripoli and the university of Benghazi , which enrol 46% of all higher education students (World Bank & The International Bank for Reconstruction and Development, 2009).

The main reason behind this staggering rise in university enrolment in Libya is to do with the inclusive feature of higher education, wherein it is free and indiscriminately available to everyone. Braun & Jones (2013) added that the other factors such as higher degrees of mobility, improved technology and technical awareness, better chances of job security and higher ambition among young population have been responsible for such a magnificent rise in the number of students seeking places in universities .

Currently, higher education in Libya is provided by universities (both general and specialised), higher technical centres and vocational institutions. The higher education system is mainly under supervision, control and financed by the authority of the state. Universities are responsible for delivering academic programmes, whereas the professional and vocational programmes are offered high diplomas at different higher educational institutions and training centres (Vandewalle, 2012). Policymakers have in recent years allowed the establishment of private institutions of higher education through what are known as educational cooperation. Since the late 1990s, there has also been considerable research into the possibility of developing partnerships between the public and private sectors to finance higher education, which resulted in the establishment of more than five private universities by the early 2000s. Education is free up to the end of the Bachelor's Degree, but post-graduate studies are up to 75% subsidised. Supply of free or subsidised higher education has led to a massive rise in the number of students in both universities and higher technical colleges (Rose, 2015). Moreover, The Libyan Open University was established in Tripoli in 1987, and now has 65,000 students enrolled, and 16 branches distributed among most Libyan areas (The Libyan Open University, 2017).

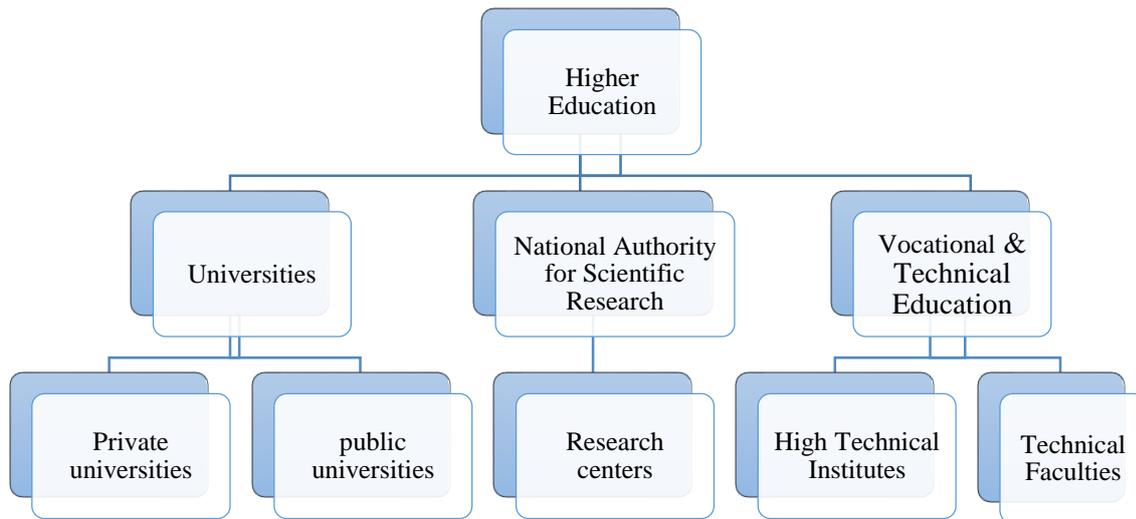


Figure 3-7 Organizational structure of higher education sector

Source: adopted from the Universities Administration in the Ministry of Higher Education

3.5.1 Higher vocational training centres and professional institutions

In the late 1980s, the government adopted higher vocational training as a form of further education programme. This became an active and efficient programme, integrated into higher education, with independent supervision by the Ministry of Manpower. Students who successfully complete vocational secondary education may seek to be admitted into further education. It is considered an extension of secondary vocational education. Considerable attention has been paid to this programme, in order to widen vocational education programmes in Libya, in response to the changing needs of the labour market. There are 68 higher vocational centres all over the country. These centres cover three main fields of specialization, including Inclusive vocational centres, Specialisation centres and Trainers' centres (Suwaed, 2011).

Furthermore, due to a lack of professional training programmes the government established six different professional higher institutions under the supervision of the Ministry of Higher Education in order to supply the local labour market with qualified manpower in a variety of areas such as Civil Engineering, Electrical Engineering, Mechanical Engineering, Electronic Engineering, Medical sciences, Industrial Engineering, and Aviation science. A three-year programme was adopted in these institutions, leading to a higher diploma in Engineering. A candidate can apply for one extra year for the award of a Bachelor's degree (National Board for Technical & Vocational Education- Libya, 2017)

3.5.2 Universities

Universities as key of national development can be found in both the public and private sector. The first University of Libya was established in 1955 in the city of Benghazi. The academic year 1955-56 only saw 34 students registered in the one and only Arts & Education faculty of the university. From the very outset, it was realised that there was a severe shortage of qualified people to fill the key administrative and executive positions of the university (Elteer, 2007). The second faculty of the University of Libya, the Faculty of Science, was established in Tripoli in 1957, primarily with the purpose of training teachers for the intermediate and secondary levels, as well as training staff to fill the various government administrative jobs (Alhawat, 2006).

In 1975 the government decided to allocate a total sum of LYD80 million to proceed with the breaking up of the university into two separate entities: Al-Fatah university in Tripoli, and Garyunis university in Benghazi (Elteer, 2007). It is believed that the breaking-up of the university paved the way for other universities to emerge through the public fund. After this, the Libyan higher education expanded gradually.

During the period from the year 1976 to the year 1998 a number of universities was established in various regions of Libya (Sebha University / University of Omar Mukhtar / Misurata University / University of Al Zawya / University of Sirte / University of Western Mountain / Nasser Internationalism University / University of Alosamarah) and the Open University. In the period from 1999 to 2003, as a result of the lack of a central administrative presence, the province established more universities and the number reached 32 with 250 faculties and branches, but the expansion was random and misguided and was based on social factors rather than the service of education. Most of these universities suffered from a lack of basic services and facilities with a gradual increase in the number of enrolment students every year. This period is responsible for the most important problems of higher education, which were the increased spending resulting from the dispersion of resources, poor management in universities and faculties, the complete absence of quality standards in universities, lack of funding and available financial resources and the growing need for faculty lecturer members. An effort was made by the government to process these negative results.

In 2004, the government restructured the universities with the law (No.118), which identified 12 universities spread over various regions of Libya, and then became 14 universities during the year 2007, after the separation of Tripoli University of Medical Sciences from the

University of Tripoli and the University Of Arabs Medical Of Benghazi University with a total number of 207 faculties.

In 2008 the government adopted development programme 2008-2012 to invest more than LYD 10 billion (US\$1= 1.25 LYD) in higher education to achieve a number of objectives such as accommodating 450,000 students by 2012, qualifying for the rehabilitation of ten thousand faculty members, establishment of 29 modern university campuses, training 5,000 employs for management, updating and maintenance of the current university buildings, restructuring the private universities, linking higher education institutions with a national network of information, development of higher education studies internally instead of sending students abroad. To achieve the above objectives the higher education sector set out a number of policies such as development and updating the curriculum educational subjects, improving the university books and moving to electronic books, improving the university libraries and encouraging publication, authoring and translation, as well as giving more autonomy to the universities council to manage their resources, offering modern technical resources for the management of the universities (The Ministry of Education, 2012).

By the year 2010, Libyan universities were restructuring under the decision of the General People's Committee No. (149) which set seven universities spread over various regions of Libya which then became nine universities in 2011 after the separation of the University Observatory for Misurata University and the University of Western Mountain for Zawiya university because of the civil war and three other universities of a special nature – Nasser International University (formerly) Alzatona currently, Alsmarya University and the open University, making the number of universities at present 12. Unfortunately, most of the projects in the plan were partly achieved while some others were cancelled or delayed as a result of the conflict that occurred in Libya in 2011 (The Ministry of Education, 2012).

Table 3-3-3: Public universities in Libya

No	University	Students	Academic staff	employees
1	Tripoli	83855	3624	675
2	Benghazi	84026	2467	1586
3	Omar Mukhtar	33035	1716	866
4	Sirte	10811	561	313
5	Zawiya	35500	1058	851

6	AlJabal Algarbi	17649	1478	829
7	Misrata	16206	1002	130
8	Sabha	15945	1045	791
9	Almergab	31030	1538	134
10	Alzatona	10626	1169	187
11	Alasmarya	4112	568	30
12	Open University	3876	14	*
13	The Libyan Academy for postgraduate	*	*	*
	TOTAL	346671	16240	6392

Source: adopted from the Ministry of Higher Education (Higher Education Ministry of Libya, 2015). *Data not available

3.6 Universities administrative structures and decision-making process

In all public universities, the university Council has responsibility for governing its institution. This includes management and regulation of university finances, accounts, investments, property and all affairs of the university (Ministry of Higher Education, 2012). Libyan universities administrative structure is characterised by the university president as the chief academic and administrative officer of the university. The university president as the chief academic and administrative officer of the University is assisted by two vice presidents responsible for the divisions of the administration, namely, Academic Affairs and Finance and Administration

The vice president of Academic Affairs helps the university president to achieve the decisions and recommendations of the Council on the academic side while the vice president for administrative and financial affairs is the chief financial officer of the university and responsible for supervising the preparation of the university annual budget and following-up their implementation, supervising all administrative, financial and training plans, supervising the preparation of the annual report of the activity of the university and preparing the final account and submitting it for approval. As shown in the figure (4-8) below a number of offices work under the supervision of each vice president. Directors who manage specific offices report to their vice president. On the academic side, Deans report to the Central Administration through the vice president (Academic affairs).

The Registrar is the administrative officer of the university. He/she is also responsible for the general administration of the institution and the provision of secretarial services to all the university boards. The Librarian is responsible for the administration of the Library. The Student office is responsible for all the Student services of the university. All these officers work directly under and are responsible to the university president who, in turn, is responsible to the University Council (see figure below)

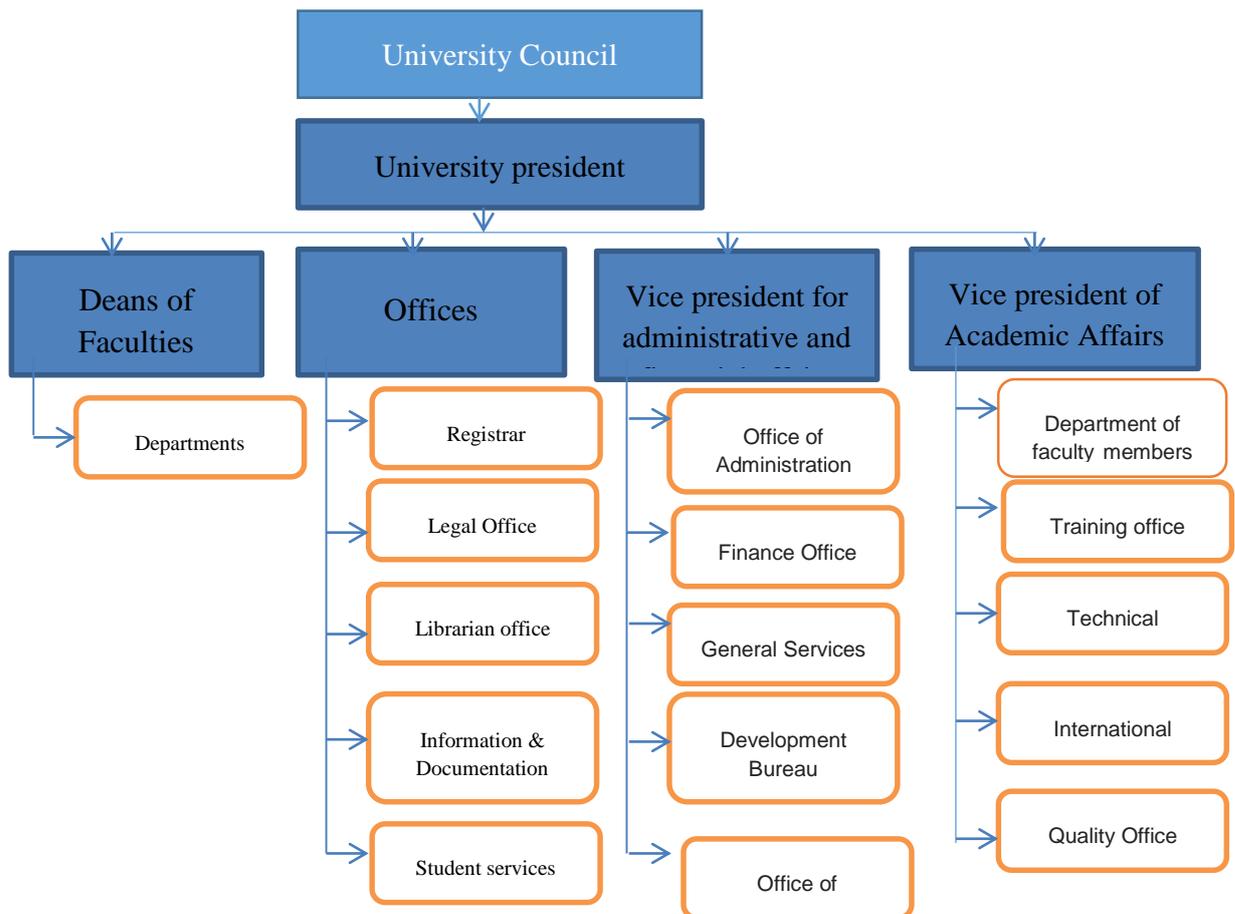


Figure 3-8 Universities Administrative Structure

Source: Adopted from Libyan organization of policies and strategies (2016, p. 4)
<http://loopsresearch.org/>

3.7 The funding source of the universities

Based on the Law of Budget issued by the Libya government in 1973, in general, the formulation of Libya's budgets are fragmented; the main destinations of public funding, the expenditures can be classified into two main categories, current and capital expenditure. The current budget concerns the administrative expenditure, which can be broken down into two sections. The first section falls under several subsections, salaries and the like of labourers. The second section is general different expenses used to conduct the daily activity of the university and colleges; such budget is the responsibility of the Ministry of Finance. Overall, current expenditure is the largest one, including cost items such as wages and costs relating to staff, costs of maintaining buildings, purchasing educational materials and operational resources. Among these, staff expenditure represents the largest cost item, being on average higher than 70% of annual expenditure in universities (several annual of universities' budgets).

The developmental budget is allocated annually and is divided into the usual construction projects and different programmes regarding development expenditure. It is linked directly with universities plans and the state, and under the specialization of the Ministry of Planning. The funds allocated within capital expenditure are normally committed for a lengthy period. Moreover, the developmental budget formulation aims to help make the budget tool link national policy objectives to macroeconomic performance.

The reports from the International Monetary Fund (IMF, 2013) regarding the increase in current expenditure at the expense of capital expenditure, particularly since the revolution, indicate the level of recurrent spending has been inconsistent with appropriate budgetary prioritization. Increases in the wage bill continue to undermine fiscal stabilisation efforts, given the volatility of oil prices and a narrow non-hydrocarbon tax revenue base. Overall, under the existing legal and regulatory framework, budget expenditures cannot exceed the initial ceilings specified in the annual budget law.

The University Council shall prepare an annual budget that shall be submitted to the Government to request funds for the following year from annual financial allocations. The government has commitment to fund higher education. The universities every year "automatically" receive a budget, which is the main financial support for universities in Libya. The government fund comes in two forms which are funds for operations and funds for development. Universities also have internal resources such as the income that is received from the rent or sale of their properties (The Ministry of Planning, 2012).

However, it is important to point out that the Government financial allocation for higher education is a function of the government budget which is dependent on the revenue that mainly comes from the oil sector as mentioned earlier. It is a common feature in some years that the universities have experienced a shortage of funds for certain projects or are not paid on time as a result of the lack of financial resources which is one of the major challenges facing the higher education sector. Furthermore, the financial allocation for the universities ignored variables such unit costs, enrolment growth or new study programmes (Porter & Yergin, 2006).

3.8 Challenges to higher education in Libya

As has been so far presented, the Libyan higher education sector appears to have been performing well in terms of attracting students and developing qualified Libyan teachers to deliver the university courses and programmes. Yet, the reality seems to be different. Since the opening up of Libya back in the early of 2000s and the re-evaluation of the education sector in 2008, the validity and quality of higher education has been seriously doubted. Since then, due to the availability of more channels of information, a large number of higher education institutes have been identified as having delivered extremely poor quality of teaching and mismanagement of their resources (The Ministry of Education, 2012).

Taghavi (2013) conducted a comprehensive quantitative investigation of five top universities in order to examine the causes of poor quality teaching and research in Libyan universities. The study findings suggest that lack of a structured promotion mechanism and low wages have been the main reasons behind the delivery of poor teaching across the board. The research points out that university leadership is still very much influenced by national government in both funding and policies. This issue was also highlighted in a higher education committee investigation report which stated that the higher education system is corroded by corruption, lack of teacher's motivation and poor resources management (Linvill, 2013).

In short, despite the remarkable progress achieved by Libya since the 1950s, the education system in Libya has been and is still subject to State interest, and for this reason, and the frequent changes in its structure, management and funding, it has been subject to widespread criticism from society. However, a rigorous evaluation of the education system in Libya is a complex task and requires much more effort, not least because the obstacles and challenges are numerous, but also in some additional elements, for example: the absence of a long-term strategic view about the higher education sector; administrative instability at all levels of decision-making; rapid change in the plans implemented from year to year, such as establishing

new universities in 1999 and abolishing them in 2004. And there are very few government policies regarding alternative expenditure on higher education.

In order to help follow the analysis to be offered in the forthcoming chapters, the above two sections have been presented to provide information and understanding of organisational structures and decision-making processes at university level in the country, with brief reference to the mechanism and approaches of university funding.

3.9 Summary

This chapter gave a contextual setting of where the study took place by outlining the political, social and economic status of Libya, and presenting a historical background of higher education in the country. The organisational structures and decision-making processes at these universities were discussed. Lastly, the educational funds were discussed, aiming to provide, in briefest form, the real core of life in Libya.

Chapter 4 - Higher education funding - empirical evidence

4.1 Introduction

In line with the theoretical literature of higher education funding, there are also a large number of empirical studies investigating the financing of higher education. These studies have taken various stances in terms of, for instance, the research methodology used, countries where the studies were conducted, issues examined, among others. This chapter presents a review of the literature on higher education funding, which is anticipated to give guidance in the development and conduct of the present study, and further to identify the gaps in knowledge within that context. It should be mentioned that although there have been a large number of studies conducted on various areas of higher education funding globally, the studies on this particular topic and concerning the Libyan context is severely limited.

Therefore, as such, this chapter is structured as follows: The first section focuses on the sources of universities funding, and how governments distribute financial allocations to the universities, as well as the motives underlying government funding for higher education. The second section concentrates on the identification and investigation of the factors that affect financial resource allocation. The challenges faced by the universities concerning financing are addressed within the above two sections.

4.2 Higher education funding

The topic of public funding within higher education is an essential element in the success and survival of educational institutions; also, it has merited significant attention in the research of higher education (Y Kim et al., 2017; Ochwa-Echel, 2016). Higher education funding also has become a global phenomenon, and is vital in achieving the educational objectives of a nation; it has received growing attention in the last decades, and is a multi-faceted issue. Increasing enrolment, scarce government financial resources, the increasing unit cost per student, and other issues are certainly central concerns in both developing and developed countries (Dragoescu & Oancea, 2014; Holliday & Gide, 2016; Johnstone, 2009b; Johnstone & Marcucci, 2007; Jongbloed & Vossensteyn, 2016; Martin, 2013; Nagy, Kováts, & Németh, 2014).

Moreover, higher education institutions face a range of challenges related to globalisation, which has created an entirely new environment. This situation serves as the motivation to a reconsideration of the funding system, and it has made higher education institutions “more tuition dependent, less governmentally owned and operated, and therefore, more market oriented” (Sav, 2010, p. 6). Likewise, globalisation has taken place in the higher education sector and has led to international competition between institutions. Increasing global mobility has intensified competition among institutions of different countries; also, an increase in the conditions that push institutions towards an increased income source diversification, in particular those countries where universities are mainly funded by government (Andeßner & Greiling, 2017). Combined with the ever-increasing influence of globalisation and a recognition of the benefits resulting from a knowledge economy, there is pressure on decision makers to link funding to institutions’ performances, while simultaneously calling upon the institutions to search for more diversified sources of finance (Pavičić, Alfirević, & Mihanović, 2009; Sav, 2010; Siddiqui, 2014; Woldegiorgis, 2017).

Therefore, with regards to such factors and others, the world generally, even in developed countries, faces financial problems, which include inadequate budgets and financial constraints (Pavičić et al., 2009; Sav, 2010; Siddiqui, 2014). Nevertheless, the African countries face fiscal problems as well, but the magnitude of these challenges is far greater than anywhere else. This is due to several aspects, such as the economic challenges facing the majority of African countries, the pressure arising from other health issues such as AIDS/HIV on the government budget, the inability of students to be able to afford tuition fees, and others (Experton & Fevre, 2010; Kamola, 2014; Teferra, 2015; Woldegiorgis, 2017).

In a study conducted by Johnstone (2009b), higher education funding was described as a broad and complex topic. It is broad in part because financial issues, for the most part, underpin three important themes of higher education policy: access, or the search for equity in who benefits from, and who pays for, higher education; quality, and the relationship between quality and funding in any of its dimensions; and efficiency, or the search for relationships between revenue and output. The topic is also complex due to multiple income sources and their various products (outputs). Moreover, these expenditure and revenue patterns vary significantly depending on the type of institution

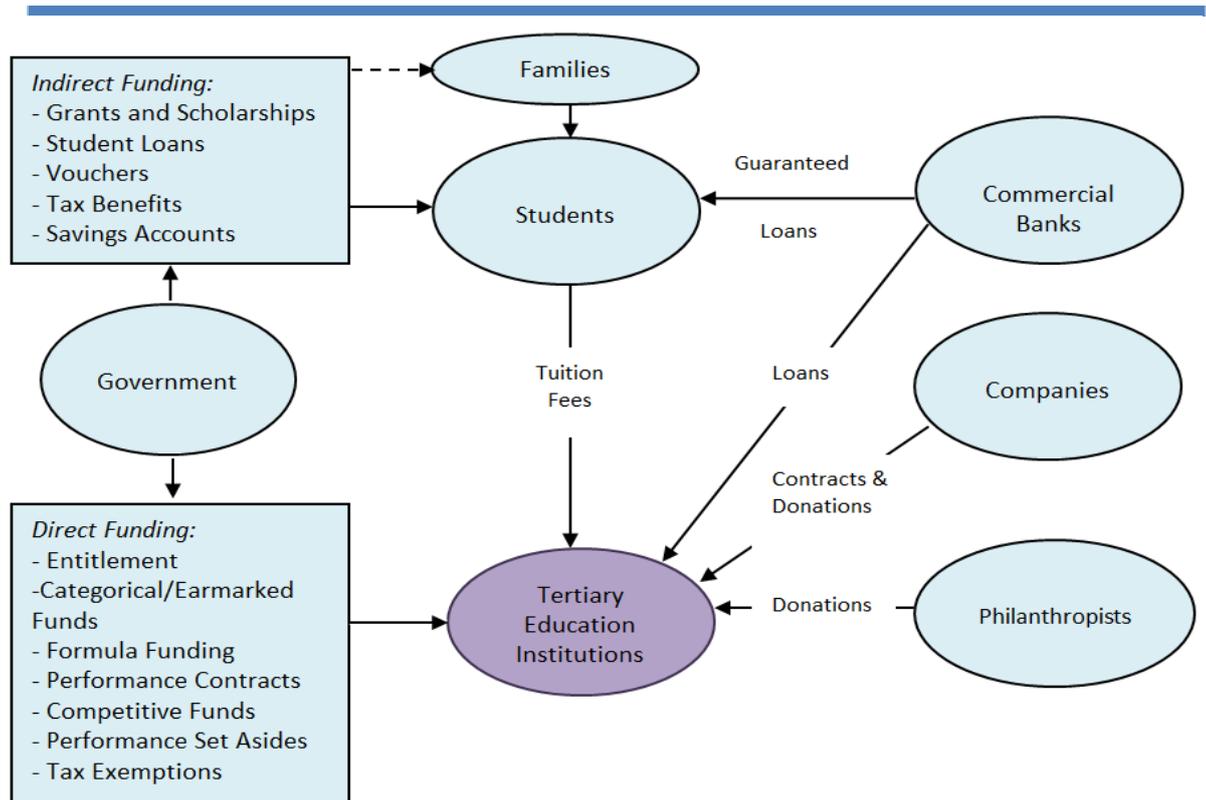
(higher institute, universities, etc.), mode of governance (private or public), and state policies concerning higher education (Johnstone, 2009b).

Additionally, the landscape of finance of higher education has recently become more complicated due to several issues, including effectiveness and efficiency of using funds, competition for available resources amongst different sectors, and the convergence of various demographic and economic forces (Bevc & Uršič, 2008; Salmi & Hauptman, 2006a). Bevc and Uršič (2008) concluded that the most important conditions for a good system of higher education funding are those of adequate resources for stable development, equity and efficiency.

In reviewing the related literature, several studies (e.g. da Costa Marques, 2015; Jaramillo & Melonio, 2011; Skrbinjek & Lesjak, 2014) investigated higher education funding, addressing two issues: financial sources and funding mechanisms. Sources of funding refer to who finances higher education institutions (e.g., government, cost sharing, private). Second, funding mechanisms refers to the mode in which public funding is allocated to higher education institutions. The following section investigates funding sources and several associated issues.

4.3 Concept of funding sources in higher education institutions

Broadly speaking, sources of revenue for public universities vary between countries and even from one university to another, although governments remain the greatest significant source of funding for public universities worldwide. Moreover, public universities receive financial resources from private entities. Students and their families are a significant source of public university income, who can pay for education (Hauptman, 2007; Maria & Bleotu, 2014; Newton, 2016; Schiller & Liefner, 2007). All the above provide for further analysis in the following sections. Therefore, there is a need to explore various methods of financing and allocating resources to higher education institutions.



**Figure 4-1: Funding sources for higher education institutions, adopted from:
(OECD, 2009, p. 303)**

The literature review indicated that there are several classifications of funding sources for higher education institutions. These funding sources can be broadly grouped into three categories that are: governments (or taxpayers); shared financing (cost sharing) between the government and other partners (families, private organisations, own resources generated from various activities, donations, etc.); and students through tuition fees (Federico, 2012; Goksu & Goksu, 2015; Jongbloed & Vossensteyn, 2016; Newton, 2016; Nkrumah-Young & Powell, 2011; Ziderman & Albrecht, 1995).

However, Dragoescu and Oancea (2014) and Maria and Bleotu (2014) have both provided a different classification. They argued that higher education institutions could be financed by two sources: the public (state budget), and the private (own income). Public sources are derived from local, regional and central authorities, while private sources are derived from students, households, and various non-governmental organisations. Nonetheless, Clark (2003) added that various government agencies might provide financial support to higher education institutions in order to receive services to promote their own progress. At the national level, these might include: ministries, such as defence, transportation,

health, housing, agriculture, and technological development; similar departments in regional governments and organisations; and supranational public entities, such as the European Union (EU).

Teferra (2013) added that there are a number of African universities that partially depend on foreign financial support, in particular from the Scandinavian countries. For instance, in 2010, Tanzania received 750 million Norwegian Kroner from the Norwegian government. Moreover, higher education institutions in some European countries received parts of their funding from various organisations such as the European Social Fund (ESF), the European Regional Development Fund (ERDF), European research programmes, and the Lifelong Learning Programme (Estermann & Pruvot, 2011). However, it is worth noting that each of these funding sources have diverse impacts on higher education institutions, which vary from country to country (Federico, 2012).

Although there is a multiplicity of classifications of funding sources, there is no one optimal model of finance allocation to higher education that can be generalised across all countries. For instance, Skrbinjek and Lesjak (2014, p. 1378) in their study concerning the European Higher Education area, found that there is “no one size fits all” formula, because each funding system has particular features that cannot be funded via uniform standards (p1378). Similarly, a comparative study of the financing models used for education in the United Kingdom and Romania by Todea and Tilea (2011, p. 5); they stated that there “is no ideal model of funding, but rather the diversity and complexity of the phenomenon characterized all over higher education financing.” (p5). In a similar manner, Goksu and Goksu (2015, p. 1158) conducted a comparative analysis of higher education funding among developing and developed countries that are either members of the EU or OECD. They concluded that “higher education financing in every country is different from each other and that some countries have distinct finance systems in higher education” (p1158). Nevertheless, (Lepori, 2007) agreed with the previous perspective and added that the selection between models is essentially a political matter, which mostly centres around the required configuration of higher education system and the goals to be achieved.

The following sections aim to provide the background and a possible framework for an assessment of different models adopted worldwide. Two important aspects need to be considered: what are the primary sources of funding for universities?; also, what are the

mechanisms used for distributing the funds among higher education institutions?. This resulted in first research question, which investigates funding sources for Libyan public universities.

As a result, despite this multiplicity of funding sources, governments remain the principal sources of funding for higher education institutions. Indeed, the contributions from alternative sources (private sector, tuition fees, cost sharing, others) in terms of overall funding are minimal; in particular, the emerging countries, which have specific educational needs that require subsequent support (da Costa Marques, 2015; Das et al., 2015; Federico, 2012). The next section addresses governmental funding as the main source of income for higher education institutions, and investigates the literature concerning the methods used by government for distribution of funding among institutions.

4.3.1 Government funding

In many countries, universities are predominantly public institutions. The principal explanation is that such institutions are non-profit making, and authority within them remains with the government (Agasisti & Haelermans, 2016; Ahmad, Soon, & Ting, 2015; Hauptman, 2007; Jongbloed, 2004). More importantly, public universities receive a majority of their funding from governmental authorities since they are acknowledged as key national assets (Johnstone, 2009b).

Recently, one of the most-raised questions is that of “Who should be paying for public higher education, and how much?” (Dar, 2015, p. 2). Across the world, governments intervene heavily in the higher education sector for which they give several justifications. Few stakeholders believe that states have to fund higher education institutions for several reasons, such as capital market failure, positive externalities, and opportunity inequality (Goksu & Goksu, 2015). The market failure argument is focused on preventing the services of educational institutions from being commercialized. The externality argument refers to social benefits associated with greater social cohesion, civil engagement, higher levels of tolerance, better general health, and low crime rates. The third justification is inequality of educational opportunities, especially for lower income groups; thus, the government is forced to intervene, providing equity to all citizens (Goksu & Goksu, 2015; Jongbloed & Vossensteyn, 2016; Skrbinjek & Lesjak, 2014). These reasons could be the motivation for governments to offer financial support to higher education institutions;

these motives will take a large share of the explanation in the section (4.4) that dealing with government motivations for higher education funding.

Empirically, as based on numerous studies, provided that governmental funds are the principal source of income worldwide, and the funding of higher education has been through governmental appropriations (first-stream income) (Bleotu & Maria, 2014; David Crosier, 2011; Haupt, 2012; Mutiso et al., 2015; Newton, 2016; Schiller & Liefner, 2007).

For example, concerning Asian countries, in a study carried out on reforms within higher education funding in Thailand by Schiller and Liefner (2007), the authors interviewed professors in five Thai universities. The study indicated that the funding sources of universities are government subsidies, which constitute 70-80% of all funding; tuition fees account for about 10-20% of all funding, and the remainder by hospital grants, if existent. This result is supported by other studies conducted in Thailand by (Sangiumvibool & Chonglertham, 2016), which used panel data analysis.

Another example within the Asian continent was a study conducted by Ahmad et al. (2015) that investigated income generation activities in Malaysia. The study employed the qualitative method through face-to-face, semi-structured interviews with academic staff. The study revealed that the funding for higher education institutions constitutes 90% governmental subsidy, with the remaining 10% received from student fees. Additional instances regarding higher education financing in Asian countries. In similar way, a study by Chandrasiri (2003) conducted in Sri Lanka showed that about 95% of public university income is allocated by the government, and the rest is obtained from fees, properties, sales, and miscellaneous income.

However, with regards to funding of institutions of higher education, the situation in Europe is different to some extent, both in terms of the contribution from public finances to the total income structure and the modes used for allocating such funds to institutions. According to a report issued by European University Association, Claeys-Kulik and Estermann (2015), due to significant differences in university income structures across Europe, and given the variances in systems funding and the methods of financial allocation, as well as institutional profiles, the comparison of data obtained from such countries is difficult.

The report analysed data from 28 European university systems, which was collected through conducting interviews with national university associations, the EUA's collective

members, and via questionnaire. The results highlighted the fact that the income structure in the universities under investigation were uneven. For instance, in England, about 40% of overall university income is derived from public funding, while public funding accounts for about 90% in Norway and Denmark, 68% in Romania, 60% in the Netherlands, and 80% in Portugal. Moreover, a comparative study conducted by Agasisti and Haelermans (2016), on 13 Dutch and 58 Italian public universities highlighted the fact that Italian universities are, for the most part, financed directly by the government (Ministry of Education), and students fees contribute only a small part (around 10%) of institutions' incomes.

In the same context, another study was conducted as a comparative study between Italy and Poland by Agasisti and Wolszczak-Derlacz (2016); the investigation included 30 Polish and 54 Italian public universities over the 2001–11 period. The study employs the DEA model to assess efficiency; the analysis agreed with previous studies in terms of contributions to higher education funding being from government. In contrast to Italy, the Polish university education is free for full-time students, tuition fees are paid by part-time students, and the share of such fees is about 15% of an institution's total revenue, with the remainder provided by the government.

In the literature, there is another indicator for identifying government subsidies for higher education institutions, which is government funding as a percentage of GDP. There are some studies and reports which reveal such an indicator. For example, a comparative study was conducted by Goksu and Goksu (2015) on developed and developing countries that are members of EU or OECD. From this study, it appears that in Korea, the United Kingdom, and the USA, public sector participation is less than that derived from the private sector; whereas in the majority of other European countries, the public sector is dominant private contributions. The study also found that almost all countries under investigation spend more than 1.5% of GDP to finance the higher education sector; in several countries, such as Korea, Canada, and the US, it exceeds 2.5%. Yet, Italy, Hungary, and the UK allocate less than 1.5 % of GDP.

Broadly speaking, in African countries, the government allocates about 0.78% of GDP to higher education on average, which is higher than the average of non-African developing countries, which accounts for 0.66% of GDP. This share falls short of the average for the OECD countries at 1.21% (Experton & Fevre, 2010). At the level of MENA (the Middle

East and North African) countries, the expenditure on higher education is higher, to some extent, than when compared to other regions. For example, Libya spends more than 3%, Algeria spends 2.6 %, while Tunisia spends 1.6% of its GDP (Jaramillo & Melonio, 2011). Moreover, a study by Okebukola (2015b) revealed that the government of Nigeria has been investing less than 1.6% of GDP in higher education over the last 10 years. In 2012, the Senegal government invested 1.62% of GDP in higher education (Toguebaye, 2015).

Concerning higher education funding in Africa, the last two decades have witnessed a rapid growth in student enrolment, a major decrease in government financial resources allocated to institutions of higher education, and continued loss of human capital (brain drain). Such challenges have led to the need to address funding systems in the higher education sector and explore other non-government sources of finance to ensure that higher education institutions in Africa remain globally competitive (Experton & Fevre, 2010; Okebukola, 2015a; Teferra, 2013). As a response to these challenges, a conference conducted in Lome, Togo, on “Innovative Approaches to Funding Higher Education and Research in Africa”, edited by Okebukola (2015a), contains a set of papers concerning various issues related to higher education funding in a number of African countries. The results of such studies showed that government subsidies are the main sources of funding for higher education institutions.

For example, Newman and Duwiejua (2015) carried out a study on models for innovative higher education funding in Ghana, the author used semi-structured interviews with groups that included several key actors such as Ghanaian vice-chancellors, principals of colleges of education, the conference of rectors of polytechnics, the polytechnic teachers association of Ghana, the university teachers association of Ghana, the association of Ghana industries, the Ghana employers association, the national union of Ghana students, and the graduate students association of Ghana. Concerning the funding sources, the results show that higher education institutions in Ghana are funded by several sources. The study indicates that the principal sources are allocated by the Government of Ghana and the Ghana Education Trust Fund (GETFund); as well as some revenues generated internally by the institutions activities, the private sector and students’ fees. In a similar context, a study concerning Nigerian higher education funding (Okebukola, 2015b), showed that the burden of public higher education funding remains largely borne by government; the National Universities Commission (NUC) is the regulatory authority and

superintendent actor in this regard, and it has maintained oversight over the mechanisms of financing, particularly of federal universities.

Moreover, Toguebaye (2015) carried out a study of Performance Contracts in Senegal Public Universities, where the author employed interviews with stakeholders involved in the area of performance contracts and documentation for collecting data. The study concluded that, in 2012, governmental subventions contributed 81.17 % of the total university income, with the remaining 18.82% being derived from internally-generated resources.

A large number of studies have been carried out examining higher education funding globally. However, there is a lack of such studies conducted for Arabic and North African countries, and none concerning Libya. Even though there are some studies on several Arab nations and the MENA region (though again with the exception of Libya), the majority of these are theoretical reviews, and are to date entirely unsupported by empirical evidence.

The most comprehensive study to date was a report issued by the Economic Research Forum, edited by El-Araby (2011), on the financing system of higher education in six Arab countries (Jordan, Egypt, Lebanon, Syria, Morocco, and Tunisia). This report included seven chapters, each chapter investigates particular issues related to higher education funding in certain country. For instance, a study concerning higher education funding in Jordan by (Kanaan, Al-Salamat, & Hanania, 2011) reviews patterns of spending on higher education and explores the adequacy, efficiency, and equity of the current system there.

A study concerning the Egyptian higher education system was carried out by Fahim and Sami (2011) addressed the efficiency, adequacy, and equity of higher education financing. The author provided a set of suggestions for overcoming the various funding challenges (e.g., demographic increasing, the demand for quality education) experienced by higher education institutions, such as a search for alternative financing arrangements, paying greater attention to the transition to private provision of education, amongst others. Another study aimed to evaluate Tunisian public spending on higher education with respect to its equity, efficiency, and adequacy. This study also explores the challenges influencing financial aspects through demographic changes and the need for a higher quality of higher education, and increasing the private provision (Abdessalem, 2011).

Another study regarding higher education funding in Morocco conducted by Bougroum and Ibourk (2011) explores the higher education financing policy, in particular concerning the equity issue. The analysis shows that the equity and the sustainability of the current funding system are undermined by the public/private split in the system of higher education and the lack of accuracy and clarity in political strategy relating to the future trends of the higher education system. Kabbani and Salloum (2011) carried out a study that has examined the access and equity implications of the Syrian government's efforts to reform higher education over the past decade. The study indicated that although several improvements have been made to the Syrian higher education system, the quality of the curriculum and its relevance to the labour market are still serious issues. The last study in the report, which considered the case of Lebanon, was conducted by (Nahas, 2011); this study assesses the efficiency, equity, and adequacy of higher education in both the private and public sectors, while revealing the challenges specific to the higher education system in Lebanon.

Another report that was issued by The World Bank (Jaramillo & Melonio, 2011) was concerned with higher education in MENA countries. This report included seven chapters, each of which addressed a particular issue; for example, financial sustainability, cost sharing, private higher education, diversification revenues, and other concerns. Consequently, there is a need to investigate the economic, social, and political conditions in developing countries in order to identify what factors may have hindered the funding reforms in the higher education sector (Sanyal & Martin, 2009; Schiller & Liefner, 2007).

As mentioned earlier, in order to provide a clear picture concerning higher education funding, along with investigating the source of this funding, the mechanisms used to distribute funds among higher education institutions should be identified. Regarding such matters, Lepori, Benninghoff, Jongbloed, Salerno, and Slipersaeter (2007) argued that the funding issue within higher education is not purely based on identifying funding sources, but also requires that the financing mechanisms be determined, as well as such criteria as the delivery of financial resources to institutions.

4.3.2 Applicable mechanisms and criteria used for financial resources allocation

The mechanisms (allocation models) followed by funding authorities are used in their determination of the budgets allocated to higher education institutions for their day-to-day operations. Resource allocation models are the means used by governments to

distribute funds. Based on such models, decision makers can determine the amount which should be assigned to each of various organisations (Field & Klingert, 2001; Mah'd, 2014). This view is supported by the definition presented by (Prowle & Morgan, 2005, p. 49) when they mentioned that perfect resource allocation is “a methodology which provides the greatest overall satisfaction in meeting objectives while simultaneously constraining the use of resources exactly to those which are available” (p49). Moreover, (Cheung, 2003; Woodhall, 1992), suggested that the resource allocation mechanism is seen not only as an important part of financing higher education, but also a tool that contributes to facilitating dialogue between users and funders. Additionally, the examination of funding mechanisms could provide a background and understanding concerning governments' attitudes towards the aims of higher education systems, and in particular that behaviour of higher education institutions which could be affected by the various financing mechanisms implemented (Cheung, 2003; Woodhall, 1992).

As can be noted from the above definitions and their relevant discussions, it is important to understand the characteristics of funding mechanisms. da Costa Marques (2015) presented three aspects that can be considered distinctions between financing mechanisms: the methodology used for calculating the finance, which identifies the value of the funding provided; factors having an impact on funding allocation; and governmental restrictions imposed on the use funds allocated.

However, funding is not simply granting a bag of money to individual institutions, but in fact is a variety methods that reflect a broad range of economic, political, and socio-cultural motives (Salerno, 2005). Additionally, the matter does not stop at identifying the funding sources but requires further investigation as to *how* a government allocates the funding to institutions. Mechanisms used by the government for allocating public subsidies to higher education institutions should not be ignored. It cannot be expected that higher education problems can be solved without addressing the issue of funding mechanisms, as Jongbloed (2010) has argued. Based on the importance of financial resource allocation, (Dea, 2016; Ziderman & Albrecht, 1995) observed that in higher education systems, it is not only the amount of money distributed that is important, but more importantly it is how that money is allocated among institutions and how it is utilised. The following sections link up with the first research question (ii), which investigates the criteria used by the government for distributing the financial allocations among public universities.

In general, governments have two main mechanisms for allocating funds to institutions of higher education; governments provide financial allocations directly to institutions (direct funding); the alternative form, governments transfer their financial support directly to students and their families, rather than institutions (Jongbloed & Vossensteyn, 2016; Mutiso et al., 2015; Salmi & Hauptman, 2006a; Ziderman & Albrecht, 1995). Both types have several sub-approaches.

4.3.2.1 Direct funding

Typically, governments provide their support directly to institutions to achieve two main purposes: financing the daily expenses and investment, and to cover the costs of the research conducted at the institution level (Sloney et al., 2006). Governments use four methods of distributing the allocated funds among institutions; the types are negotiated budgets, categorical funds, funding formulae, and performance-based funding.

4.3.2.1.1 Negotiated budget

The negotiations are conducted directly between institution representatives and government agencies; in a few cases, parts of the negotiations are carried out via intermediaries (buffer) organisations, such as research councils or funding councils in the UK (Jongbloed & Vossensteyn, 2001). The historical basis and the estimated budget submitted are the primary factors in determining the amount of funding. Nevertheless, although there is some impact of the negotiations on decision making concerning the financial allocation to a given university, the final amount is unlikely to differ much from historical levels; however, it may be enhanced as the result of political considerations, or the skill of negotiators in persuading government officials (Experton & Fevre, 2010; Jongbloed, 2000).

Moreover, through implementation of a negotiated budget, a government has the chance to exercise control over its institutions, as mentioned by Ziderman and Albrecht (1995) in that this “enables the government to maintain a high degree of political control over the university system as a whole as well as over individual institutions” (p 108). A similar perspective discussed by (Ziderman, 2016) argues that in many countries, particularly developing countries, the allocation of financial resources is adopted largely on political criteria. In contrast, decisions concerning the distribution of public funds to institutions of higher education should be insulated from political influence as much as possible (Salmi & Hauptman, 2006a).

Regarding the types of negotiation, Ziderman and Albrecht (1995) classified the negotiated budget into three types: incremental budgeting, according to which, institutions receive slightly more than the previous budget; bilateral agreement between government agencies and a given institution; and fixed percentage of revenue collected. The funds resulting from such negotiations are distributed to institutions in one of two forms, line-item and block grant (lump sum).

- **Line-item budget:** according to this type of budget, government agencies pre-allocate institution funding to specific activities and/or cost items (Estermann, Nokkala, & Steinel, 2011b). Essentially, it is a centralised method; thus, institutions are not entirely free to distribute the funds allocated, but rather can only do so within rigid restrictions (Estermann et al., 2011b). This type of budget is based on several categories such as staff salaries, cost of building maintenance, material requirements, and investment (Jongbloed, 2004). Thus, it imposes relatively restricted autonomy on institutions concerning the spending of the government funds they receive (Salmi & Hauptman, 2006a).
- **Block grant:** in contrast to the negotiated budget, this method provides funds as a single grant to each institution and any decisions concerning the use of this form of funding is left to the institution itself. A block grant is defined as “*financial grants meant to cover several categories of expenditure such as teaching, ongoing operational costs and/or research. Universities are responsible for dividing and distributing such funding internally according to their needs*” (Claeys-Kulik & Estermann, 2015, p. 16). Several scholars (Experton & Fevre, 2010; Herbst, 2008; Jongbloed & Vossensteyn, 2016; Salmi & Hauptman, 2006a) have described block grants as being financial grants based on the priorities of an institution, and can be transferred from one budget item to another from one year to the next. Thus, block grants tend to provide institutions more autonomy and flexibility than line-item budgets in terms of how they can be spent. However, as based on block grant budgets, higher education institutions do not enjoy complete freedom as to how to use their primary funding (Estermann et al., 2011b).

4.3.2.1.2 Categorical or earmarked funds

This type of funding is usually designed for particular institutions to achieve specific purposes. It targets the specific needs of institutions that are driven by geographic

demands, or particular government goals. For example, institutions located in rural areas that suffer from a lack of infrastructure require greater consideration in this regard; of course, there are many other such cases that require unique attention. Broadly speaking, such funding is more appropriate for investment projects than operational expenditure. Nevertheless, this type of finance lacks any need to create a competitive environment between institutions in terms of obtaining their funding because it focuses attention on particular institutions without consideration of others.

4.3.2.1.3 Formula funding

Formula funding is an alternative method of funding that involves both categorical funding and negotiation. This method uses inputs (number of students, staff, etc.), and performance indicators to calculate the amount of public funding that should be allocated to a given university (Salmi & Hauptman, 2006a). To clarify, as based on the European University Association (EUA), Claeys-Kulik and Estermann (2015) presented a definition of the funding formula as “a mechanism to determine the amount of funding allocated to a higher education institutions using a mathematical formula which includes variables based on indicators, such as student numbers, etc.” (p.19). Based on (Salmi & Hauptman, 2006a), the criteria used for determining funding formulae include:

- **Inputs:** the formula is predetermined based on input criteria that contribute to educational costs, such as the number of staff, students, departments, faculties, etc. The number of students also may be used as a factor in calculating the average cost per student (Salmi & Hauptman, 2006a).
- **Cost per student:** the calculation of the cost of each student to the institution is essential in identifying the total cost of higher education. To calculate such costs, (Salmi & Hauptman, 2006a) suggested three methods on which allocations can be based: the actual costs reported by the institution; average cost per student, where the institution’s allocation is based on an average cost per student that is calculated through aggregate statistics on enrolment and spending; or governments can use normative costs per student, where this latter approach is the most innovative means of calculating the unit cost per student.

As a result, formula-based funding provides many advantages over alternative methods. For example, (Federico, 2012; OECD, 2008b) found that the formulae are considered to be a transparent means of providing public funding as funds are allocated on a factual

basis; thus the criteria for the distribution of finances are typically clear to all involved, and no longer reflect ill-founded historical bases or the lobbying power of various influences such as political ones. It is also the case that funding formulae that take institution performance into consideration, which is usually linked to the outputs achieved over some given previous period (e.g., the number of graduate students) (Federico, 2012). A similar study conducted in Georgia by Ziderman (2016) noted that funding formulae provide a clear incentive for institutional efficiency. Furthermore, appropriately designed funding formulae can guide a university in achieving the desired national economic and social needs. They ensure that the university system provides an essential contribution to economic growth and meets the demands of the labour market in terms of qualified human resources; in the latter case, the needs of disadvantaged people can be met through measures requiring their increased access (Ziderman, 2016).

However, although formula-based funding has several advantages, it has some drawbacks, in particular, the difficulty in accurately identifying the unit cost of each student. In this instance, this challenge is caused by the difficulty in discriminating between part- or full-time students, in terms of calculating education cost of each student, student/faculty ratios, and other issues (Salmi & Hauptman, 2006a).

4.3.2.1.4 Performance-based funding

In contrast to other methods, which focus on inputs such as the number of students enrolled, this method is a more recent innovation, and it is dependent on institutions' performances, encouraging them to achieve superior results, and thus obtain more funding (Hicks, 2012). For example, this method is linked directly to the number of students passing their examinations; number of degrees awarded; the rate of employment of students into the labour market; volume of research publications; or number of licenses and/or patents issued (Claeys-Kulik & Estermann, 2015; Frølich, Evanthia Kalpazidou, & Rosa, 2010). Moreover, these authors classified performance-based funding programs into three different forms: performance contracts, competitive funding, and payments for results.

Several scholars (e.g. Ahmad, Farley, & Naidoo, 2012; Jonkers & Zacharewicz, 2016; Sangiumvibool & Chonglertham, 2016) have stated that as a result of a greater need for more accountability and efficiency for using public resources, a pressing need to implement a model that ensures adequate transparency regarding the use of public money.

Therefore, recent trends and practices indicate that using institutional performance as the basis of funding mechanisms within higher education financing has the greatest likelihood of achieving such.

Nonetheless, empirical evidence collected accordance with individual case studies (Boer et al., 2015) found out that there is no clear evidence of any direct relationship between performance-based funding in general on the one hand, and productivity, quality, and higher education efficiency on the other. Another study conducted by Kettunen (2016) on the performance-based funding schemes of Finnish universities showed that performance-based funding has largely failed to create an incentive amongst universities to improve performance due to the relatively low amount of public financing that makes up total university funding. Besides, whilst performance-based funding might be gaining in popularity, in practice there are some uncertainties concerning this system. For instance, several studies, such as those conducted by (Dougherty & Natow, 2009; Klein, 2015) concluded that performance-based funding's application indicates that this system suffers from instability; this due to in part, to how allocations were budgeted: faced with declining government revenue, policy makers could be responded by cutting non - essential, programs to protect institutional bases, and might have led to some countries abandoning performance-based funding.

4.3.2.2 Indirect funding

The alternative means of provision of funding to higher education institutions by government is by transferring such funds directly to the students and their families. This type of funding has met with significant degrees of acceptance and has attracted considerable attention in the literature, and is the focus of the following sections herein. The literature reveals that indirect allocation mechanisms (students support) comes in several forms: (i) "demand-side" vouchers; (ii) tax benefits; (iii) government grants and scholarships; (iv) student loans; and (v) part-grant/part-loan mechanisms (Experton & Fevre, 2010; Ochwa-Echel, 2016; Salmi & Hauptman, 2006a; Ziderman, 2016).

4.3.2.2.1 Demand-side vouchers

Demand-side vouchers are one of the more innovative means of paying for higher education, which provide finances indirectly through vouchers provided to students from their government, which are usually intended to pay tuition fees (Salmi & Hauptman, 2006a; Ziderman, 2016). The student voucher can be simply defined as "students and/or

families receive a coupon (voucher) which represents a certain amount of money to be used exclusively for tertiary education-related expenses” (Salmi & Hauptman, 2006a, p. 28). Based on the report issued by Centre for Higher Education Policy Studies (CHEPS) by Vossensteyn and Jongbloed (2007), there are several countries that apply this approach in their higher education systems such as Australia, Germany, Colorado, and the Netherlands.

As argued by Jaramillo and Melonio (2011), the voucher system provides more freedom for students to choose their institutions and desired academic fields; also, it is supposed to provide institutions greater autonomy due to the fact that there is no direct government control over institutions through laws, and government regulations. Therefore, this method aims to increase competition between higher education providers, thus also leading to increased efficiency within the funding system (Ziderman, 2016).

4.3.2.2.2 Government grant and scholarship,

Most countries and higher education institutions offer non-reimbursable financial aid in the form of merit-based scholarships or means-tested grants. Both scholarships and grants can be administered indirectly (via institutions of higher education, dedicated agencies or directly to students) (Salmi & Hauptman, 2006a). However, the scholarships system is not always successful in achieving its objectives, and rather its success depends on its design; if this design is based on fair criteria and is transparent, this will lead to improved equity and quality amongst higher education systems by encouraging talented and disadvantaged students to apply for university places. Some models include a combination of both merit- and need-based criteria (OECD, 2009).

4.3.2.2.3 Tax Benefits

Tax benefits are another instrument that governments can use to offset a portion of the tuition fees paid by students or their families. Tax benefit can be taken in one of two main forms, a credit against tax, or a deduction from income for either current expenses, future expenses or savings (Jaramillo & Melonio, 2011).

4.3.2.2.4 Student Loans

Student loans, as a means of indirect government support, aims to mitigate access issues for disadvantaged students who are unable afford the cost of a university education, as well as relieving the burden on the state budget through contributions to greater cost

sharing by increasing tuition fees (Barr, 2009; Johnstone, 2006; Masaiti, Mwelwa, & Mwale, 2016; Shen & Ziderman, 2009). The literature reveals that most countries are now adopting loan schemes as a means of indirect government subsidy; they are also widely used throughout the world, in at least 75 countries, as a mechanism for financing higher education (Johnstone, 2009b; Masaiti et al., 2016; Shen & Ziderman, 2009).

Johnstone (2009a, p. 1) defines a loan scheme as “a program, in most cases involving governmental sponsorship, that covers some portion of instructional or student maintenance costs or both and that results in a repayment obligation, whether this obligation is actually called a loan or by some euphemism (such as a graduate tax) and whether the obligation is to a fixed schedule of payments or is expressed as some percentage of the borrower’s future income or earnings.”.

Nevertheless, student loans have inherent limitations, the most important of which is non-repayment of the loan, or the extended required time taken by students to completely repay them (De Villiers & Ntshoe, 2013). The existing literature (e.g. Albrecht & Ziderman, 1993; Masaiti et al., 2016; Okebukola, 2015b) indicates that universities and governments have difficulty in reconciling the need for retrieving some of their costs from students with the goal of keeping higher education accessible. However, practically speaking, loan programs have become a disappointing instrument in terms of cost recovery (Albrecht & Ziderman, 1993; Masaiti et al., 2016; Okebukola, 2015b). According to (Warue & Ngali, 2016, p. 6), loan recovery is “the reclaiming back of loan from former beneficiaries”.

Empirical evidence concerning the recovery of educational loan from students across the world is not particularly encouraging. For instance, in a comprehensive study by Shen and Ziderman (2009), which conducted specifically to investigate repayment of student loans in 39 countries (developed and developing), concluded that the repayment ratio, in general, was around 61%; the highest repayment rates are achieved in the Netherlands, Namibia, and Canada, where the ratios of loan repayments approached 100%. At the other extreme, in Nigeria, Egypt and Russia, the repayment rate was little more than 10%. The drop of repayment ratio in these countries is attributed to lending conditions, namely the ease by which a loan can be obtained. Recently, the Centre for Global Higher Education issued a report on the student loan system in the U.S., as conducted by (Barr, Chapman, Dearden, & Dynarski, 2017). The report revealed that “The US* student loan system is

currently in crisis”. It clarifies that graduates from US higher education institutions owe \$1.3 trillion in student loans; seven million borrowers are failing to pay their dues. The scholars argue that the main reason behind such levels of default is that the US implements mortgage-loan as a type of student loan, which is required to be repaid over a set period, and as such places a very high burden on low-earning borrowers.

As a result, governments strive to strike an acceptable balance between providing support to higher education institutions (for instance, by giving grants to institutions and regulating fee levels) and making subsidies available to students (by providing student loans and scholarships). Clearly, this task is extremely challenging, particularly during times of austerity and financial crisis (Jongbloed & Vossensteyn, 2016).

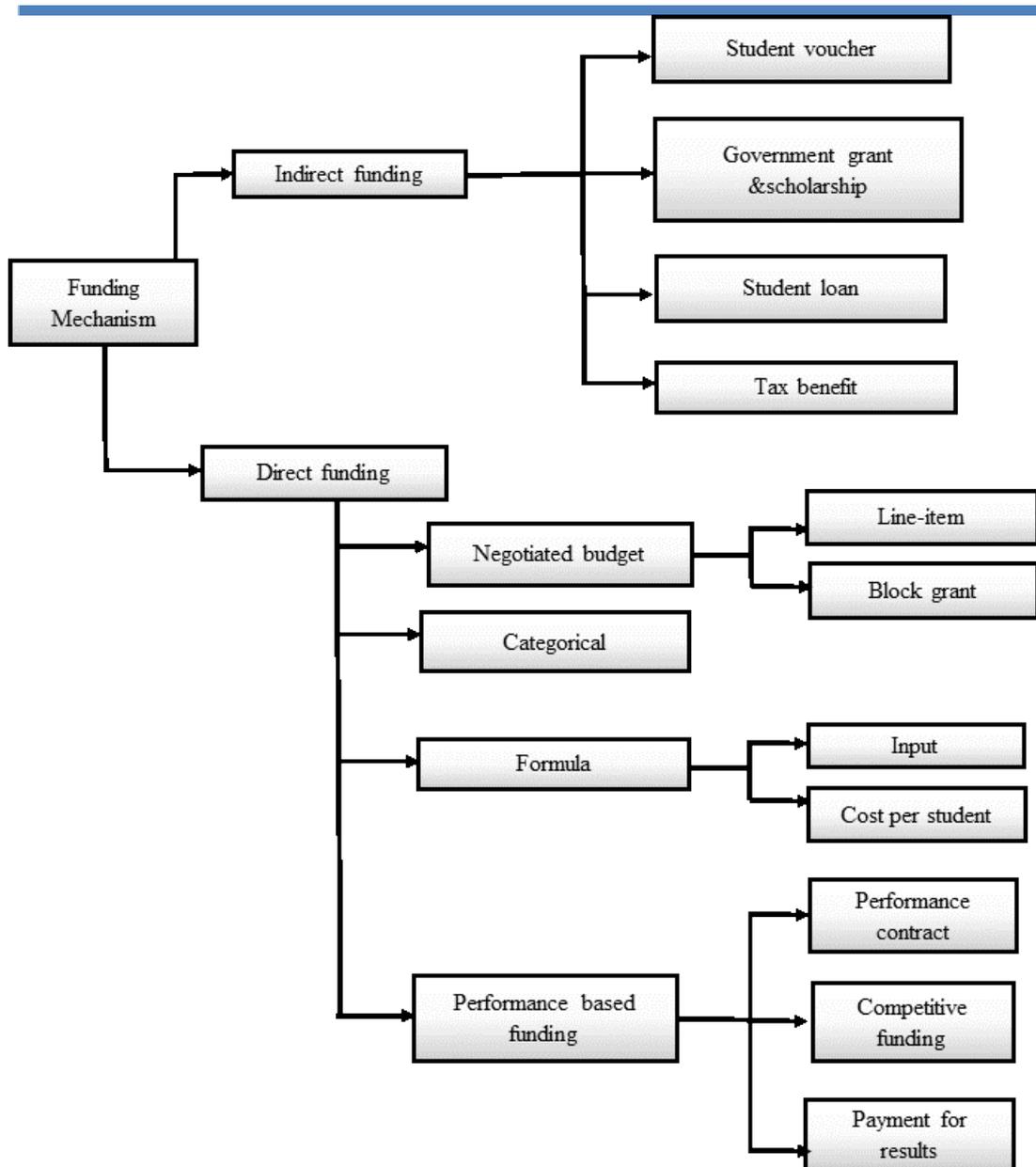


Figure 4-2 Mechanisms for financial resources allocation, designed by the researcher on the basis of (Salmi & Hauptman, 2006a)

After reviewing the theoretical background regarding funding sources and the mechanisms used for distributing finances among higher education institutions, the following sections highlight the empirical evidence in the literature from studies conducted across the world that is related to the topics discussed earlier. The literature contains a set of studies conducted worldwide that have explored the funding mechanisms used in various higher education systems.

A review of the studies in the literature concerning the European world shows many studies and reports that are relevant to this issue. For example, a report conducted by a

team of European University Association (EUA) on performance-based funding in 28 European university systems via interviews with the EUA's collective members, the national university associations (Claeys-Kulik & Estermann, 2015). The report revealed that most university systems in Europe receive basic recurrent public funding through a block grant; the size of the block grant is determined in different ways; through negotiation, on a historical basis, or through a performance contract.

Similar to the European context, a comparative study was conducted by Cretan and Gherghina (2015) to analyse the patterns of national public funding in three European countries, Finland, Greece, and Romania; the study used content analysis method. The study's findings reveal that the Greek and Romanian governments allocate funding to universities based on the results of negotiation, according to an estimated cost of study fields and the number of students enrolled. It also revealed the funding methods applied in these three countries are according to performance and quality. Sometimes these criteria are combined, such that a part of the amount allocated is negotiated, while another part is determined on a historical basis, or may otherwise be determined through a funding formula (Cretan & Gherghina, 2015).

Another comparative study between the Netherlands and Italian public systems to analyse the relationship between university performance and the public system of higher education funding was conducted by (Agasisti & Haelermans, 2016). This study revealed that government funding was given as a block grant, as based on performance. In Italy, although the Ministry of Education transfers the funding to universities in the form of a block grant, the basis for allocation is one of historical costs and certain performance indicators.

Nevertheless, in England, the situation is different to some extent than other European countries; higher education institutions obtain part of their funding through the Higher Education Funding Council for England (HEFCE). HEFCE allocates funds based on institution and staff research activities, and the Research Assessment Exercise (RAE) evaluates this research to identify the funding value of each institution (Claeys-Kulik & Estermann, 2015).

Further evidence concerning the European continent, in the form of a comparative study between Norway, Denmark, and Portugal, was carried out by Frølich et al. (2010), investigating the impact of the higher education funding system on institutional academia

and strategies in those countries. The study relied on mixed methods, and quantitative and qualitative data; the findings demonstrate the commonalities in the funding policies of Norway, Denmark, and Portugal; the three systems are based on formula-based funding for research and teaching.

Regarding the Asian continent, a study conducted by Sangiumvibool and Chonglertham (2016) discussed performance-based budgeting in Thai public universities. The authors analysed panel data. The study found that the public budget is allocated based on the performance of the university. Further evidence from Asian countries, comes from a study that focussed specifically on Sri Lanka; the financial allocation system there is reasonably similar to that of the UK in terms of the existence of an intermediary body between higher education institutions and the government. The study conducted by Chandrasiri (2003) concerning financing of university education show that the government allocates a block grant through an intermediary body, namely the University Grants Commission (UGC), to be distributed among higher educational institutions. Allocations have a historical basis with some adjustments for promotion and increments in salaries, and if there are new projects and programmes. Moreover, the study revealed that the mechanism used for resource allocation is highly centralised. It discourages diversification, and the procedure for allocation is inflexible, making it difficult to adjust the distribution of financial resources according to changing circumstances.

Regarding the African continent, and based on the results of the study conducted by Ziderman and Albrecht (1995), most African countries use the negotiated model for funding higher education institutions. They added that the universities cannot expect any certainty in the amount they will receive in subsequent years from their governments. The investigation by Experton and Fevre (2010), as a report issued by the World Bank, revealed that in various countries, namely Sudan, Ethiopia, Madagascar, Lesotho, Mozambique, Mauritania, and Zimbabwe, the most common approach is to allocate university budgets on a historical basis, using previous years as a baseline; small changes are made according to the country's general economic condition, government revenues, economic stability, and inflation rates. When the institution seeks to influence the decision of government concerning incremental changes, the historical basis can evolve into a negotiation-based process with the relevant financial authorities (Experton & Fevre, 2010).

The situation in Ghana is exceptional compared to that of most other countries in the African continent. A study conducted by (Newman & Duwiejua, 2015) employed qualitative analysis of models for innovative higher education funding in Ghana. The results showed that higher institutions obtain total government allocations through a mediator organisation called the National Council for Tertiary Education (NCTE) using a combination of mechanisms, namely incremental allocations or historical funding, the latter being based on previous years with minor variations and negotiation with NCTE. Nevertheless, the final decision on the size of the allocation depends on the total allocated by the ministry of finance to the higher education sector as a whole. The author recommended that NCTE should base the allocation of the higher education funding on aspects such as performance funding, innovation grants, base grants, research grants, and institutional factor grants.

The following study by Dea (2016) used qualitative analysis of the financial policies and current trends of Ethiopian higher education institutions; the findings reveals that due to inefficiently and impracticality of line-item and negotiation as an allocation method, the Ethiopian government has recently adopted the block-grant system, as based on its strategic plan agreement.

4.4 Governmental motivation for higher education funding

Governmental funding ideologies and philosophies take various forms, and countries have different methods and policies regarding public funding. An understanding how governments justify their funding can; therefore, potentially highlight how governments consider the funding of higher education. Therefore, this part of the literature review will attempt to answer the question of why governments should consider the provision of financial resources to institutions of higher education and their students worthwhile; in other words, what do governments seek to achieve in providing this support.

However, generally, in most countries, there is no clear reasoning behind the level of funding other than the most general economic, social, and tax equity rationales. Usually, adequate attention is not given to the funding processes in order to address issues about the relevance of higher education, including meeting emerging economic and societal needs (OECD, 2008a).

In reviewing the related literature, some studies (e.g. Garritzmann, 2016; Holmes & Mayhew, 2016; Jongbloed, 2010; Toutkoushian & Shafiq, 2010; Ziderman & Albrecht,

1995) argue that a more appropriate question to ask is what are the underlying motivations behind government funding? The answers are varied and overlapping: some of arguments considered that governments finance higher education institutions for positive externalities, market failure, opportunity inequality, and others (Goksu & Goksu, 2015; Toutkoushian & Shafiq, 2010). Others believe that governments have invisible intentions behind their financial intervention in higher education, which might for achieving various political purposes (da Costa Marques, 2015; Devarajan et al., 2011; Jongbloed, 2010).

Therefore, the questions raised within the next section indicate the need to explore the various motivations behind government intervention in terms of its financial support for HEIs. The aim of such an exploration is to provide a background and possible framework for assessing the various reasons behind governmental funding for higher education institutions. In reviewing the literature, it was found that there is some considerable overlap between the various motivations for the provision of government funding, and the researcher attempted to categorise such motivations into their socio-economic and political aspects.

4.4.1 Socio-Economic motivations

Around the world, the higher education sector is considered to be a major contributor to economic development; countries are now pushing to expand this sector. The underlying view is that higher education is seen as the source of innovation for improving skills and providing human capital, and thus by improving the economic position of individuals, will contribute to the economic growth of the associated nation (Hanushek, 2016; Holmes & Mayhew, 2016; Pinheiro & Pillay, 2016).

Overall, the economic benefits received from higher education have been linked empirically to providing better opportunities for employment, professional mobility, and better working conditions on the one hand; also, one might also consider the benefits related to individuals with higher salaries and the potential for larger savings. The other economic benefits are linked to society as a whole, which are a reflection of the individual benefits and mainly relate to workforce flexibility and productivity, increased tax revenues, along with reduced dependence on government financial support (Percy & Svenson, 2016).

The following section begins by reviewing the various aspects of economic justifications that underlie state funding for higher education, as mentioned in the literature. Simply

put, various scholars (e.g. Erkoç, 2015; Goksu & Goksu, 2015; Jongbloed, 2010; OECD, 2008a; Toutkoushian & Shafiq, 2010) argue that the economists justify the government supporting because governments can provide a more equitable concerning provision the educational opportunities to all citizens. Thus, they believe that the government support can act as a means of rectifying inefficiencies, inequities, or failures in the market for higher education (Erkoç, 2015; Goksu & Goksu, 2015; Kochenkova, Grimaldi, & Munari, 2016; Toutkoushian & Shafiq, 2010). Consequently, government subsidies to institutions of higher education are justified “to ensure an adequate supply of higher educated individuals to meet wider societal needs” (Ziderman & Albrecht, 1995, p. 9).

The externalities of higher education can be subdivided into either monetary or non-monetary ones. The Human Capital Theory initially put forward by (Gary S. Becker, 1962; Guy, 1967), which considers that the education of each individual is an investment in human capital, and will contribute to a productive society as a whole. Logically, any investment is accompanied by initial costs, such as direct and indirect expenditure, and the opportunity cost of the time of student spent. These costs are carried in the belief that they represent future benefits, both monetary and non-monetary, to both individuals in particular and society at large (Johnstone & Marcucci, 2007; Woessmann, 2008). The most cited monetary externalities, which focus on increasing the productivity of the person being educated through higher income, lower probability of unemployment, etc. Besides, the monetary benefits of higher education can not only be enjoyed by the person being educated, but through extension by society as well.

The contribution is derived through the positive impact that higher education graduates have on productivity, leading to improvements in society by adopting new technologies, knowledge creation and transmission, improving research and development; also, it tends to contribute the government expenditure by increasing taxes revenues (Blondal, Field, & Girouard, 2002; Woessmann, 2008). Moreover, investment in higher education also delivers non-monetary benefits, such as greater engagement in social and civic life, higher life expectancy for more educated people, and greater life satisfaction, enhanced social cohesion and reduced crime, etc. (Shrivastava & Shrivastava, 2014; Skrbinjek & Lesjak, 2014). In a similar context, (Viaene & Zilcha, 2013) discussed another important issue that the accrual of government investment in higher education lead to net social benefits; they argue that in addition to the benefits that the society derives from the human capital generated, individuals can enjoy higher earnings.

Several empirical studies in the literature, several studies have analysed the role of higher education in economic development, and several associated aspects. Among these, a study by Pinheiro and Pillay (2016) investigated the role of higher education in economic development within two OECD case studies, those of South Korea and Finland, through face-to-face interviews with senior officials from government agencies, regional industry, and local higher education sectors. The study indicated that government investment in higher education in both cases has played a considerable role in economic development. Moreover, higher education systems have the ability to meet the labour market's demands. By using causality and cointegration tests for the period 1961-2011 in Turkey, (Boztosun, Aksoylu, & Ulucak, 2016) study revealed a dual causality relationship between and economic growth variables and human capital. This is in agreement with another study in Turkey, conducted by Orhan (2017), where the author used the autoregressive distributed lag (ARDL) approach to analyse the relationship and causality between economic growth and human capital for the period 1971-2013. The main finding of this study indicates that an accumulation of highly educated human capital supports economic growth. It also found a bidirectional causality and a long-running relationship between higher education and economic growth.

Such results are supported by other studies which also suggested the same trends. For instance, Ljungberg and Nilsson (2009) conducted an investigation on the relationship between human capital and Swedish economic growth for data covering the period 1870-2000 using the Granger causality test. The authors reported that human capital had a significant and positive effect on the economic growth in Sweden; however, the effects of human capital after the 1970s had relatively lower influence on economic growth than expected.

This is also in line with Lilles and Rõigas (2017), who investigated the relationship between economic growth and students in higher education in several European countries. This study focused on the extent of contributes from higher education students in knowledge-intensive employment. The study proved that these students contribute positively in this regard. Similarly, Obradović and Lojanica (2016) investigated the short- and long-term relationships between economic growth and higher education in Sweden. They concluded that a unidirectional causality between real GDP per capita and higher education exists, and the relationship between them is positive.

Specifically concerning the UK higher education; according to a report issued by UK universities (Universities UK, 2015), during the 2011-2012 period, UK universities generated about £73 billion in output; the universities contributed £40 billion to the UK GDP in the form of direct contributions and off-campus spending of international students and visitors. Such contributions mean UK universities contributed an equivalent of 2.8% to GDP in 2011, exceeding the contributions of several sectors including construction, health, and public administration.

However, a recent study conducted by Holmes and Mayhew (2016) on the economics of higher education in OECD countries concluded that it was difficult to demonstrate the causal link between an expansion in higher education and economic growth in most countries. They added that the underlying cause of this is that a large number of higher education graduates are entering jobs that are no different from the ones done by their non-graduate parents.

Nevertheless, as part of the economic motivation, and based on the economic theory concerning government intervention in higher education, various scholars (e.g. Goksu & Goksu, 2015; Johnstone, 2009b; OECD, 2008a; Toutkoushian & Shafiq, 2010) have justified government financial support to higher education in terms of two main concerns; efficiency concerns, which are often known as market failures; and equity, which is mostly associated with providing equal opportunities.

Regarding market failures, several authors (Barr, 2004b; Cardoso & dos Santos, 2011; Goksu & Goksu, 2015) introduced two main cases that may be subject to failure in the higher education market; these are part of the justifications that underlie governmental intervention in financing higher education. First, private credit markets may not enable students to borrow sufficiently against future income (inefficiency), thus justifying public provision or student loans. Secondly, students who come from disadvantaged backgrounds in particular may not be able to continue their education due to lack of finances (inequity); thus, to improve access, the government should intervene.

Market failures, or capital market imperfections (as they are called in some areas of the literature) indicate that there is risk involved in any investment in higher education. The private markets may not be able to provide subsidies against future income because their economic value and future jobs are uncertain. This uncertainty may result in students facing difficulties in establishing education-based loans from private banks. This situation

is true for lenders, who are uncertain if a particular student will graduate, and they will find a job, and will then be able to repay their loan (Barr, 2004b; Cardoso & dos Santos, 2011; Goksu & Goksu, 2015).

Therefore, to overcome these problems and to prevent underinvestment in education, governments have to intervene and support higher education, either directly or by offering governmental guarantees to ensure payment to lenders in case a student fails to make the repayments themselves. This intervention, the provision of equal educational opportunities to all, and ensuring that no one can be excluded from higher education because of their inability to pay educational costs (Barr, 2004b; Cardoso & dos Santos, 2011; Goksu & Goksu, 2015; OECD, 2008b). Botlhale (2015) added that government intervention can influence people to undertake further education.

Another rationale for governmental intervention relates to equity (fairness), which is another argument for government subsidisation as related to fairness, which complements the capital market imperfections justification; such a concept is subject to different interpretations in a policy context; the relationship between equity and education often reflects equality of opportunity, no matter a student's socioeconomic background, gender, or ethnic origin. The argument originates from the idea that higher education is for all individuals who have the ability to study, regardless of their financial background. In accordance with this idea, government intervention in higher education can allow for equity through governmental subsidies that seek equality in entrance opportunities for students from various socio-economic backgrounds (De Villiers & Ntshoe, 2013; Johnstone, 2009b; OECD, 2008a).

However, based on (Barr, 2004b), the “equity objective is not free higher education, but a system in which no bright person is denied a place because he or she comes from a disadvantaged background” (p. 266). McCowan (2012) agrees with (Barr, 2004b), arguing that “the task of ensuring equitable access is highly challenging in contemporary societies given the entrenched inequalities stemming from educational experiences prior to university entry” (McCowan, 2012, p. 125).

4.4.2 Political motivations

Economic and social motivations are not the only reasons for governments funding higher education institutions. The literature highlights the fact that there is another perspective regarding the motivation behind government providing funding for higher education

institutions, which is that of political purposes. In other words, there are those who believe that governments have political objectives behind such financial aid (da Costa Marques, 2015; Devarajan et al., 2011; Jongbloed, 2010); they believe that government subsidies are one of government's instruments of intervention (funding councils, ministries), as well as policy education.

Empirically, an exploratory study was conducted by da Costa Marques (2015) on higher education funding in Portugal, which adopted a qualitative methodology. The results of this analysis suggest that the funding model used seeks to achieve various goals, including political goals.

In higher education, government regulations are often related to other issues, such as the number of students accepted into public institutions and the freedom of higher education institutions to decide their tuition fees and their own resources, as generated by various types of activities (da Costa Marques, 2015). In the same context, with regards to political reasons, Johnstone (2009b) argued that, worldwide, there are a number of states that have adopted particular ideological political contexts that influence to run of all institutionalised means of production including institutions of higher education, in addition to resources allocated from funding, the remuneration of workers, and the establishment of prices.

Furthermore, governments can be driven by partisan, election or ideological considerations when making their funding decisions or proposing their policies, and might even be motivated by control behaviour (Potrafke, 2011a). In general, the political ideology might be understood as “a coherent and consistent set of orientations or attitudes toward politics” (Michael K. McLendon, Hearn, & Mokher, 2009, p. 691).

Ha (2012) argues that because the funding of higher education can be considered a method for distributing national income, government ideologies can also have an effect on income distribution, and can be linked to the policies of higher education funding. Nonetheless, empirical evidence from OECD nations conducted by Potrafke (2011a) indicates that government ideology has only a weak influence on the arrangement of governmental budgets. Recently, another study conducted in OECD countries using panel data analysis conducted by Herwartz and Theilen (2017) agreed with the previous study, and further that the impact of right-wing governments are less influenced than left-wing governments regarding state budget decisions.

One major political ideology is socialism; this ideology believes that to achieve the central government's responsibilities of equality and freedom in higher education, the government should fund the associated institutions (Barr, 2004a). Also, socialists believe that the production and financing of higher education should be under government control (Barr, 2004a). However, the socialist ideology is not always consistent with government funding. A study regarding the role of the Chinese government in higher education conducted by Fuhui Li (2016) concluded that although China adopts a socialist ideology, the government encourages the private sector to increase investment in higher education.

Nonetheless, during the last two decades, because of the global economy liberalisation and shifting socio-economic situations, changes in the arrangements of funding for public higher education have occurred in the majority of countries; generating funds from additional sources other than government have become more acceptable, and even necessary (Goksu & Goksu, 2015; Jongbloed & Vossensteyn, 2016; Santiago, Tremblay, Basri, & Arnal, 2008; Teixeira & Koryakina, 2013). Moreover, within the framework of international trends within higher education, the renewal of funding arrangements is one of the main trends. Such policies include the necessity to diversify sources of university income; the allocation of public funding is increasingly characterised by increased targeting of resources, competitive procedures, and performance-based funding.

As a consequence, and the immediate effect of these trends on higher education financially, is that the literature shows that government allocations to higher education have been shrinking; and institutions face problems in developing and expanding their operations due to governments becoming parsimonious and stricter in their investment of public funds, as has been discussed in many studies (e.g. Experton & Fevre, 2010; Farhan, 2014; Jongbloed, 2004; Lepori et al., 2007; Teixeira & Koryakina, 2013). However, public funding in many countries is not only diminishing, but also changing in the form and nature in which it is provided to institutions; it is increasingly subject to restrictions regarding its allocation, and is accompanied with growing requirements of accountability (Estermann & Pruvot, 2011).

Therefore, the situation calls to share the cost with students and their parents, in addition to innovative sustainable methods for generating resources from both private and public sources to offset the current deficiencies; thus, the restructuring of existing mechanisms of funding is, therefore, imperative (Experton & Fevre, 2010; Farhan, 2014; Teixeira &

Koryakina, 2013). The following sections articulate both solutions (cost sharing and generating own resources) separately, and in some detail.

4.5 Cost-sharing and revenue supplementation

In recent decades, there has been a universal tendency towards the adoption various cost-sharing models within higher education policies (Chapman, 2006; Fengliang, 2012; Guest, 2006; Johnstone, 1998). Increasing demand for higher education and decreasing funds have motivated many countries to consider some kind of cost-sharing method to shift the burden of cost of higher education from being borne predominately by the state, or taxpayers, to being shared with its beneficiaries (students). No matter whether they are developing or developed countries, socialist, capitalist, or those in a transition, many countries have adopted a model of cost-sharing or have raised tuition fees level in order to meet the dramatic increase in demand for higher education (Chapman, 2006; Fengliang, 2012; Guest, 2006; Johnstone, 1998; Ogwengo & Osano, 2017).

The concept of cost sharing was first developed by Bruce Johnston, with his work in 1986 “Sharing the Costs of Higher Education” when he compared the finance of higher education and student aid in several countries, namely the UK, the U.S, Germany, France, and Sweden. The cost-sharing perspective posits that higher education costs should be borne by four parties: governments, students, parents, and donations by philanthropists (Johnstone, 1986). Within a few years, the Johnstone’s study had had a significant influence on policy financing decisions in three of the five countries above: the UK, Sweden, and Germany (Woodhall, 2007). Furthermore, the work of the senior author (Johnstone, 1986, 2003, 2006) have contributed significantly to the development of the term cost-sharing; this refers to a shift of part of the burden of cost from governments to students and their parents.

Here, it is important to define cost sharing; for example, Johnstone (2003, p. 351) provides a definition of cost sharing in higher education as: “refers to a shift in the burden of higher education costs from being borne exclusively or predominately by government, or taxpayers, to being shared with parents and students.”. With the same meaning, though with a different formulation, Vossensteyn (2004, p. 39) defined cost sharing as “the predominant development towards a gradual transfer of the financial costs of higher education from governments towards the students and their families”.

In reviewing the related literature, many studies indicated that to fill the funding gap the most obvious solution is cost sharing. The supplementation of higher education revenues with non-government sources has been widely adopted and is recommended by the World Bank and other development experts. The costs of higher education are increasingly being shared by students via tuition fees, income contingent loans, mortgage-type student loans, and differential tuition fees in many countries (Chapman, 2006; Guest, 2006; Johnstone, 1998; World Bank, 1994; Ziderman & Albrecht, 1995). Moreover, the European commission has revealed that funding gaps are a serious challenge faced by higher education institutions, and has asserted the need for cost sharing to fill them (Van Vught, 2009).

The literature (e.g. Goksu & Goksu, 2015; Johnstone, 2009b; Johnstone & Marcucci, 2007; Jongbloed & Vossensteyn, 2016; Teixeira & Koryakina, 2013) reveals that there are several rationales for cost-sharing emerging as a context. The scholars further note that the world has witnessed several trends, each with economic, social, and political roots and consequences, which are noteworthy for their influences on higher education financing and, in turn, on higher educational participation and accessibility. These trends make the generation of funds from sources other than government have become acceptable and, indeed, necessary.

4.5.1 The rationales of cost sharing

Based on several earlier studies (Fengliang, 2012; Goksu & Goksu, 2015; Jongbloed & Vossensteyn, 2016; Ogwengo & Osano, 2017; Teixeira & Koryakina, 2013) who provided the motivations for adopting cost sharing policies within the system of higher education funding, the researcher has classified such motivations as follows:

First, there is a need for additional revenue –other than governmental revenue - with this need being the consequence of three trends: greater demand for, and expansion of, tertiary education systems; increasing unit cost per student, due to the technology applications which tends to increase product quality or the convenience and comfort of the producers, rather than lowering production costs; the decline in availability of public revenue for higher education because of other governmental priorities such as medical care, increasing spending on pensions, public infrastructure, or combating social exclusion, and others, are imposing pressure on education budgets (Cremonini et al., 2013; Fengliang, 2012; Goksu & Goksu, 2015; Johnstone, 2009b; Jongbloed & Vossensteyn, 2016).

However, Fengliang (2012) argues that even a country faced with a low enrolment rate in higher education institutions, while also experiencing a high rate of births and rapid economic growth, expects to encounter a growing demand for higher education.

The second argument is the rationale for sharing higher education costs is that ‘those who benefit from high education should contribute in its costs’. Several scholars (Johnstone, 2003; Johnstone & Marcucci, 2007; Jongbloed & Vossensteyn, 2016) believe that higher education costs should be shared by its key stakeholders in proportion to the benefits received. Furthermore, (Johnstone, 2003, 2006) argued that the parties who should contribute to higher education funding are: governments/taxpayers, students/parents, and donors; and the largest burden should fall upon taxpayers and students.

For example, the category of taxpayers who benefit from higher education through the social, cultural, and economic benefits and well-being associated with increased numbers of citizens completing higher education (Baum et al., 2010). This is because global competition requires high qualifications, and maintaining a high level of wealth requires a well-educated society (Adnett, 2006; Baum et al., 2010); in contrast, the societies with a poorly educated workforce are lacking in international competitiveness (Adnett, 2006; Baum et al., 2010). Baum et al. (2010) added that as more people complete higher education, societal benefits such as voting rates, volunteer rates, health improvements, and charitable donation, while welfare expenditures decrease.

Similarly, students benefit via the social and economic status that a university degree confers (Baum et al., 2010; Tannock, 2006). Moreover, this argument is based on the fact that adults completing higher education are more likely to be employed and earn more than adults without higher education (Jongbloed & Vossensteyn, 2016). In a study conducted by Baum et al. (2010) in the U.S., the authors revealed that it can be estimated that individuals with a Master’s or Bachelor’s degree have earnings that are 97% and 66% higher, respectively, than their whose completed their high school diplomas but did not enrol in university; the results also show that less-educated individuals face higher levels of unemployment than their peers who graduate from higher education institutions.

However, the rationales of cost sharing have faced strong opposition. There are those who believe that higher education is a basic right, and students and parents should not contribute to its cost. For instance, Johnstone (2002, p. 27) believes that “any policy that seeks to impose a new or a sharp increase in the price of a good or service that has come

to be viewed as an entitlement, especially one so seemingly noble and socially important as higher education, will be fiercely contested”. In other words, such a principal opposes the idea that higher education is a basic right. With regards to this argument, Barr (2004b) himself argued that the fact higher education is a basic right does not mean that it should be provided free of charge, because although food is a basic human right, it is generally not freely provided.

The third argument underlying the shift of higher education costs towards a greater share being assumed by the student and their parents is efficient; such an argument assumes a greater efficiency when there is a price or a charge, and this is reflected in at least a part of the real costs of the provision of higher education. Under the pretext that higher education is free or mainly subsidised by government, this might lead either to overconsumed or the academic effort will be an insufficient effort (Johnstone, 1998; Johnstone & Marcucci, 2007). Nevertheless, Kezar (2004) criticised this efficiency as a justification for sharing the cost of higher education, and argued that higher education funding should be insulated from market forces and commercialisation.

Moreover, cost sharing does not only aim to raise funds, but also at preventing over-use of services by consumers through raising awareness of the importance of costs. The imposing of tuition fees induces students to be harder working and to graduate “on time”. Likewise, higher education institutions have an incentive to decrease their tuition fees in order to retain and attract students (Johnstone, 2006; Johnstone & Shroff-Mehta, 2000; OECD, 2008a). Lastly, the equity rationale posits that saving of public resources through individual contributions might be used to improve equality of access. When there is no tuition fee, or tuition fees are low, a proportion of the beneficiaries of higher education would pay part of the costs if they had to. Tuition fees would influence decisions relevant to students’ enrolment from more affluent families; while, in countries with weak financial subsidies, students who come from disadvantaged families would find it difficult to enrol in higher education. Hence, the increasing cost sharing argument is one made to raise the revenues of higher education through the collection of tuition fees from those students who can afford to pay, and to channel such savings into strengthening the system of financial assistance for students less able to pay (Johnstone, 2006; Johnstone & Shroff-Mehta, 2000). The economic crisis has also contributed to the pressure on public financing of higher education institutions in most parts of the world; thus this issue

contributed to the call for the need to share higher education costs (Kwiek, Lebeau, Brown, Stumpf, & Lucchesi, 2012).

Therefore, the existing literature has revealed that, confronted with above challenges, and in response to these financial pressures, governments need to decide between difficult policy options as outlined below:

- Control of the growth dynamics of student enrolment to close the gap between enrolment and available resources so as to cap the growth in enrolment. Such an option makes the students from disadvantaged families the most likely to be affected by enrolment rationing, but those from families that are more affluent would have alternative opportunities, whether through paying fees or by studying abroad. More importantly, this may have extensive negative effects through capping the growth in human capital and economic competitiveness (Experton & Fevre, 2010).
- Keeping the structure of higher education system unchanged, with a reduction in government expenditure per student. Typically, such an option leads to a reduced quality of outputs because of underinvestment in teaching materials and training (Jaramillo & Melonio, 2011).
- Provide additional public resources, including taxes, to accommodate the growing demand of higher education, and to keep a fixed expense per student. However, public resources for higher education would almost certainly be lacking in light of such growth. A few countries may be able to invest additional resources in higher education, but most countries are not in a position to increase their public funding sufficiently (Experton & Fevre, 2010; Hauptman, 2007).
- Increase public resources through the financial participation of students and families. In a country where the government is concerned with issues of equality or where the tax base is limited, this option will become difficult to implement.
- The last possibility is to give public universities the freedom and encouragement to generate their own resources through their educational programmes and by strengthening research. OECD (2008a) suggests that universities should be put under continuing pressure by reducing the public subsidies in order to force them to diversify their own revenue streams.

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- The third suggestion is privatisation and liberalisation of higher education. This means opening the education markets to domestic and foreign providers with the goal of decreasing the financial burden, at least partially, on the public provider. Nevertheless, private financing of a public service is not generally associated with equity because students from disadvantaged families have less access to higher education.

However, cost sharing is not always the perfect solution for financial challenges facing higher education institutions. Milosavljević and Benković (2014) argue that any solution achieved through cost sharing policies might merely create additional problems, particularly if there are inaccuracies in the implementation of such a policy; it may negatively affect academic work and the academic freedom of institutions' staff.

Cost-sharing is choice made to prevent the development of a low-cost education system, coupled with the development of a supply of private higher education. Several solutions and tools can be used to share the cost of higher education. Broadly speaking, the cost-sharing policy is mostly associated with tuition fees, which can take several forms: the introduction of tuition fees in the instance where none exist (or are extremely low if they do); a rise in the level of tuition fees where they already exist; the imposition of “user charges” for recovering particular expenses (e.g., registration fees) with subsidised institutional services (e.g., accommodation and meals); improve cost effective recovery through the reduction or elimination of scholarships or student grants; and encouragement of the private higher education sector, alongside the limitation of a subsidised public sector (Johnstone & Marcucci, 2007; OECD, 2008a).

Despite the fact that cost-sharing policies can take these various forms, the imposition of, or increases in, tuition fees will almost certainly prove to be the greatest financial influence. This is because tuition fees, aside from the need to reduce part of the total income in the form of discounts or grants to preserve accessibility, can be both financially significant and on-going, and can even be designed to increase regularly, thus keeping pace with the inevitably rising per-student costs of instruction. For such cases, tuition fees face resistance from the most politically and ideologically charged, and thus have become a symbol of the conflict between those who believe that higher education costs should be shared, especially tuition fees, and those who believe that governments should continue

to provided higher education free of charge (Jaramillo & Melonio, 2011; Johnstone & Marcucci, 2007).

4.5.2 Tuition fees

Tuition and registration fees are one tool for shifting the burden of higher education costs away from governments/taxpayers to students and their families. More countries are using this method, and the fee levels vary greatly across the world (Cremonini et al., 2013). A tuition fee is regarded as more equitable due to the fact they charge part of the cost of higher education to the people who directly benefit from higher education. Moreover, tuition fees may help to improve the university quality and management, as well as reinforcing student motivation (J. Vossensteyn, Cremonini, Epping, Laudel, & Leisyte, 2013). However, charging tuition fees has met with considerable criticism, and is often claimed to limit accessibility to higher education, particularly for students who come from lower socio-economic backgrounds (J. Vossensteyn et al., 2013). The charging of tuition fees as a part of cost-sharing arrangements faces the difficult issue of deciding a price for the service thus provided.

Nonetheless, among all cost-sharing channels, charging tuition fees is the most politically controversial (Fengliang, 2012). Kelchen (2016) added that in many countries, student fees at public higher education institutions are of particular concern due to the magnitude, and the rapid increase, of such fees. Specifically in Nigeria, the study conducted by Okebukola (2015b) noted that “the magnitude of tuition in universities in Nigeria has remained a vexed issue erupting in agitations by students and inflicting disruption to school calendar when there is a consideration for increase.” (p. 55).

Many empirical studies have been conducted concerning the burden of shifting higher education financing from governments to the various direct beneficiaries of higher education. For instance, a report issued by the Centre for Higher Education Policy Studies (CHEPS), and conducted by (Cremonini et al., 2013) concerning tuition fees revealed that various countries have introduced or modified tuition for full-time students in public higher education institutions, namely Austria, Australia, Brazil, Hungary, China, Kenya, the United Kingdom, Tanzania, and New Zealand. Also, it indicates that even in the large group of countries in Central and Eastern Europe, Latin America, South East Asia and Africa, where higher education was traditionally provided free of charge, private contributions have recently been introduced, especially for part-time students.

Regarding the philosophy behind the setting the tuition fees, a report issued by the State Higher Education Executive Officers (SHEEO), as conducted by Bell (2011) collected its data via a survey distributed among 45 states in the U.S. The report revealed that there is no specific philosophy behind deciding the value of tuition fees, but there were various responses about this issue. For example, more than a third of the respondents indicated that the philosophy of tuition setting was tied to the needs of institutional budgetary; some respondents revealed that the tuition setting was according to the ideals of affordability and access; other respondents identified a philosophy that allows national students an inexpensive education, while international students were required to pay the full cost of their education.

A comparative study of the politics of subsidies and tuition fees in 33 advanced democracies in OECD countries was conducted by Garritzmann (2016). The author classified the countries under investigation into four “worlds” of student finance. The first group, where tuition fees are low, and government subsidies are almost non-existent is prevalent in several countries (mainly in continental Europe). The Nordic European Countries constitute the second group, which is characterised by very generous government subsidies and low tuition fees. The third group is characterised by a high subsidy regime that is maintained through public grants and publicly subsidised student loans, whilst at the same time students are charged high tuition fees; this category is representative of the U.S. and other Anglo-Saxon countries. Finally, Korea, Japan, and other Asian countries, and also several Latin American countries, such as Chile, constitute a group characterised by a sparse public subsidy system with high tuition fees (Garritzmann, 2016).

Moreover, the report issued by the European University Association (EUA) and conducted by Claeys-Kulik and Estermann (2015) considered several aspects related to higher education funding in 28 European universities; the authors used the mixed method to collect data, namely in terms of interviews with EUA’s collective members and via questionnaire. The results revealed that no tuition fees imposed at all (neither for international nor national/EU students at any level) (Finland, Brandenburg, Iceland, Czech Republic, and Norway).

The European European Commission (2014) conducted a comparative report dealing with nine case studies - seven countries in the European Union and two from outside Europe

(Hungary, England, Germany, Finland, Portugal, Poland, Canada, South Korea, and Austria). The investigation into the impact of cost-sharing on the behaviour of higher education institutions and students, specifically, the objectives are concentrated on the key aspects of effectiveness, sustainability, and equity of tuition fee policies. The approach used was that of a case study methodology; the data were collected via interviews with local experts and previously published data. The findings were, for example, with regard to providing a degree of balance in cost sharing, there are several countries, namely England, Austria, Portugal, and Germany, who have made serious attempts at shifting the cost-sharing balance, while in Portugal and Germany, and tuition fee reforms were comparatively modest in scope. However, with respect to the effect of fees on the behaviour of higher education institutions, the results show that the mere presence of fees does not have an impact in itself, but rather these arise through the structural incentives that surround the fees the European Commission (2014).

A study on the effects of the introduction of tuition fees on enrolment in higher education institutions in Germany was conducted by Hübner (2012); it was found that the introduction of tuition fees had a negative effect on enrolment behaviour. The study also revealed that the effect was more significant than in other European countries. In contrast, another study conducted in Germany by Bruckmeier and Wigger (2014) examined whether the imposition of tuition fees at public institutions of higher education in Germany had a negative effect on student enrolment, or otherwise. The study concluded that there is no evidence for the existence of any negative effects on enrolment that can be attributed to the introduction of tuition fees. Another study on the effect of tuition fees by Thomsen and von Haaren-Giebel (2016) analysed the extent to which paying tuition fees changed the financial situation of students. The results indicated that the imposition of tuition fees only moderately affected the spending behaviour of students; the results also show that the impact was not the same for men and women.

Regarding American higher education, specifically in terms of tuition fees, Kelchen (2016) analysed the effect of state-level factors (state economic conditions, the state authority to control tuition, and partisan political control) on deciding tuition fees. The author used panel regression techniques, and the data considered ranged over the 2001/02 to 2012/13 academic years. The study revealed that the identification of fee levels was not significantly influenced by the partisan control of state legislature; also, if the legislature had at least partial authority in setting fees, fees were around \$65 higher than

colleges in other states, while fees were \$38 lower if a state coordinating board had partial fee-setting authority.

A study in Zambia on the challenges and prospects of the cost-sharing policy used in Zambia's public universities was conducted by Masaiti and Shen (2013); they used the perspective of students by distributing 79 questionnaires to examine several aspects related to the policy of cost sharing that has been implemented in Zambia over the past two decades. The study revealed that the current policy of cost sharing is appropriate, but in need to more support from government in its implementation. In addition, it indicated that the policy requires further clarification by providing details concerning the process of its implementation.

A comparative analysis between a number of OECD countries, conducted by Goksu and Goksu (2015), indicated that there are several changes that have occurred, and that have impacted the policies related to higher education funding. Neoliberal policies which have become more significant since 1980s; an important increase in the participation of the private sector in financing higher education through the growth in the number of private higher education institutions. As a result of such changes, many countries have accepted and adopted the policies of cost-sharing in their systems of financing higher education. Another study conducted in OECD countries comparing the mechanisms of financing higher education institutions by Jongbloed and Vossensteyn (2016); the study concluded that one rationale for the emergence of cost sharing in the field of higher education funding is a consequence of the capacity of public budgets for institutions of higher education are less than the increase in demand for higher education services.

The distinction between international and domestic students has become increasingly common worldwide, with only a few countries not charging international students particular tuition fees (Estermann & Pruvot, 2011; OECD, 2014b). The imposition of differentiated tuition fees in some higher education institutions represent an attempt at combining the preservation of equity while gaining higher revenue through tuition fees (Estermann & Pruvot, 2011; OECD, 2014b). As empirical evidence, the OECD (2014a) have shown that several countries have not adopted the same tuition fees for international and domestic students enrolled in the same programme. The report indicated that, for instance, in Austria, the tuition fees charged by public higher education institutions for students who are non-national or from countries within the European Economic Area

(EEA) pay twice the fees imposed on citizens of these countries. Similar policies are found in Denmark, Canada, (as of 2006-07), the Netherlands, Ireland, New Zealand (except doctoral students), the Slovak Republic, Poland, Slovenia, Sweden (as of 2011), Turkey, Switzerland, the United States, and the United Kingdom; in Australia, non-national students are not eligible for the support available to domestic students.

4.5.3 Revenue diversification

Over the last three decades, though, universities and governments across the world have been struggling to acquire the necessary, and adequate, funds in order to meet the ever-growing demands of expanding higher education systems (Feleke, 2015; Ogwengo & Osano, 2017; Woodhall, 2007). This means the demand for higher education in most countries throughout the world is growing faster than either the willingness, or ability, of governments to provide adequate public resources to satisfy such demand; as a result, governments face the challenge of maintaining their finance levels for the increasing demand of higher education through government revenues (Feleke, 2015; Johnstone, 2004; Liu, 2007; Woodhall, 2007). The magnitude of the financial challenges faced has been even greater in developing countries, in particular African countries, than those faced in developed countries (Experton & Fevre, 2010; Meek, Teichler, & Kearney, 2009; Teferra & Altbachl, 2004). As mentioned briefly by Rozmus and Cyran (2012), the stable stream of government funding for higher education “is beginning to dry up” (p.64).

Therefore, the financial problems that have resulted from persistent underfunding have placed considerable pressure on higher education institutions to diversify their income streams by searching for alternative sources of funding, and reducing their dependency on governments. The diversification of revenues is one of the most significant potential solutions for overcoming financial challenges, and for sustaining and continuing the expansion in higher education enrolment in countries throughout the world; also, it is a tool for ensuring the financial sustainability of higher education policies, as revealed by several studies (Claeys-Kulik & Estermann, 2015; Cremonini et al., 2013; Gebreyes, 2015; Liu, 2007; Massy, 2009; Rozmus & Cyran, 2012). They believe that, consequently, a need to diversify resources implies that higher education institutions are required to innovate a variety of activities for revenue generation; public authorities in various countries have also become more aware that higher education institutions should diversify their funding structure, and seek to attract funding from alternative sources; also, they

should give universities adequate freedom to engage in various means of revenue generation.

However, not all researchers believe that revenue-generating activities will have a positive effect on higher education institutions. For example, Marginson and Considine (2000) argue that diversification of revenue may fundamentally shift the character of higher education institutions, namely that of an academic function primarily engaged in research and instruction, into a generic corporate environment. Some critics argue that income diversification should be resisted or at least limited in particular institutions, due to fears that the intensive financial benefit interest obtained will cause institutions to lose their independent role in society (Brooks, 1993; Krinsky, Ennis, & Weissman, 1991).

As institutional autonomy is one of the requirements for successful diversification of income in higher education institutions, and the diversification of funding sources provides the university greater autonomy, institutions that derive a majority of their income from government sources will enjoy less autonomy than institutions that depend heavily on non-government sources of finance (Etomaru, Ujeyo, Luhanya, & Kimoga, 2016). A study conducted for the European University Association (EUA) by Estermann and Pruvot (2011) has determined that there is a positive correlation between distributed funding from different sources and degree of autonomy. In other words, the universities that are funded by governments cannot boast full autonomy because of the source of their funding, and this will negatively influence their academic operations, as noted by (Leisyte & Dee, 2012).

Nevertheless, several scholars have made a different argument (e.g. Akalu, 2014; Etomaru et al., 2016; Lebeau & Papatsiba, 2016; Rostan, 2014); they believe that diversification of funding sources and reduced dependence on the government does not mean that institutions would obtain full financial autonomy because higher education institutions have to search for other avenues to increase their revenue in meeting their needs; thus, they suggested that this matter would increase the number of stakeholders who would also intervene in, or seek to influence, university affairs through their financial support. External funders (non-government), for instance, might attempt to influence the research agenda of universities by dictating the research themes that their money should finance (Leisyte & Dee, 2012). Rostan (2014) added to this argument by asserting that funding

agencies exercise pressure over academics to engage more in research activities than in teaching, which will clearly affect the balance between both activities.

Moreover, the advantages of diversification are not limited to improving university autonomy, but goes beyond to other issues. For example, a report published by the World Bank, as conducted by Johnstone (1998), found that revenue diversification helps enhance the quality of higher education and monetary inflow because it establishes cooperative links with business partners who might become involved in curriculum guidance, work placements, and others; also, revenue diversification introduces a market-sensitive culture to institutions of higher education. Another advantage mentioned by Clark (2003), who argues that diversification of university revenue makes a university more self-reliant, was that it then allows universities to adapt more quickly to any external changes; also, it provides discretion in spending available funds.

Furthermore, Estermann and Pruvot (2011) found that a strong motivation for universities to diversify their income is to avoid the restrictive administrative procedures inherent to government financing. Income generated through fundraising or commercial activities is perceived as being easier to manage and can be distributed internally with less, or no, restrictions. Rozmus and Cyran (2012) stressed that dependence on more than one funding source by some institutions enhances the idea of sustainable development since this money is likely be spent in better ways.

The following section discusses revenue generation in institutions of higher education in more detail. Before discussing revenue generation as an international orientation in higher education funding, and as a tool for the financial sustainability of public higher education institutions, it should clarify what revenue diversification actually is. Based on Estermann and Pruvot (2011), income diversification is the “generation of additional income (through new or existing funding sources) that contributes to balancing the income structure of the institution” (p. 14). Teixeira and Koryakina (2013) gave the definition of revenue diversification as “the generation of revenue beyond government appropriation” (p.175). This can be achieved through various activities such as research commercialisation, consulting, technology transfer, customised courses, and hiring/renting university facilities (Jongbloed & Vossensteyn, 2016; Teixeira & Koryakina, 2013; Ziderman & Albrecht, 1995).

Several scholars in the higher education field have been interested in revenue diversification in public universities, and have conducted associated studies in various countries across the world. Alternative revenues are growing as a source of finance, but remain relatively low-level sources. A study by the OECD (2008b) indicated that higher education institutions in most countries under investigation achieve only a small part of their income in this manner. The study attributed this to institutions not being particularly serious or, indeed, dynamic in seeking alternative sources of funding; it is also due to insufficient awareness of the potential for increasing revenue and income, as well as a lack of appropriate institutional infrastructure.

However, other studies concluded that institutions of higher education all over Europe have taken considerable steps towards the diversification of their income. Although entrepreneurialism and innovation are not equally spread across all national higher education systems, empirical evidence suggests that various types of institution generate different types of entrepreneurial and innovation activity (Liu, 2007; Rozmus & Cyran, 2012; Schiller & Liefner, 2007). The findings from the EUDIS (European Universities Diversifying Income Streams) project, as conducted by Estermann and Pruvot (2011), indicated that over 80% of institutions are seeking, and serious in their intention, to diversify their funding sources.

For more details about this report, as conducted in European context for the EUA by Estermann and Pruvot (2011), it used an online questionnaire to collect data that was distributed to over 100 universities in over 27 countries, both EUA members and otherwise. The results indicated that contracts with private businesses for both teaching and research activities generate, on average, 6% of universities' incomes, which constitutes the largest contribution from alternative sources. Nevertheless, the study also revealed that there is a difference across institutions, with several of them indicating that contracts with the private sector contributed less than 1% of total revenue; on the other hand, there are Dutch, French, German, and Slovenian universities obtaining more than 10% of their income from private partners, while Irish universities receiving 25% of their funding from private business. Regarding the Philanthropy income, the study showed that this still constitutes a simple contribution not exceeding 4% of institutions' incomes in the European context, though with some noticeable exceptions; some institutions generate close to 10% such as the United Kingdom, Italy, France, and Sweden.

Moreover, the services provided by European universities are one of the additional sources of non-governmental funding. According to Estermann and Pruvot (2011), such types of income represent on average 4% of total income. However, British universities are outstanding in this regard, as they generate between 10% and 25% in some institutions through offering services. The author attributed the reason behind this exception being due to British universities enjoying a high degree of financial autonomy. These income-generating services often represent the majority of services income, such as exploitation of conference facilities, the management of catering and accommodation, and other services.

A study of the sources of funding for public higher education in South Africa, conducted by De Villiers and Ntshoe (2013), used semi-structured interviews with twelve senior officials from higher education institutions to obtain its data; further data were obtained through institutional documents and national policy. The study concluded that several institutions have the ability to diversify their funding sources through industry partnerships and by offering courses in the social sciences and the humanities.

In a similar way, and still in the context of the African continent, Mutiso et al. (2015) conducted a study concerning the impact of funding sources on higher education quality in Kenyan public universities; the authors used an interview guide, secondary document analysis, and a student's survey questionnaire to collect data, and SPSS to analyse the data collected. The study found that revenue diversification initiatives by higher education institutions include fees and revenue-generating activities which contribute about 10% to 50% of institutional income. Moreover, there has recently been another innovative funding avenue are through the private-public partnership, where the universities are allowed to share investors within the framework of the build operate transfer.

Another study by Botlhale (2015) on higher education financing in Botswana adopted a single case study, and the analysis of the data collected (various government documents) used the descriptive approach. The study indicated that the government has continually given the institutions of higher education favourable allocations. However, the increasing demand for higher education, coupled with global economic downturn-induced financial stress, necessitates the search for alternative sources of finance for higher education institutions.

Concerning several European countries, a study by Stachowiak-Kudła and Kudła (2015) on the impact of financial regulations on the diversification of funding in institutions of higher education used an econometric analysis to achieve the study objectives. The study presented several factors as having a positive effect on the diversification of funding sources, which are financial stability, in particular encouraging the greater use of funds from private sources, and the capacity of institutions to generate additional income from alternative sources.

A study conducted in Portugal by Teixeira and Koryakina (2013) analysed the funding changes over a decade by observing the legal changes regarding revenue diversification, and identifying the significant factors impacting the diversification of income revenues. The results implied that diversification of revenue tends to reach a ceiling, and that it is difficult for institutions to exceed this level. Whilst there were a number of institutions that were able to grow beyond this limit, this required drastic changes to the financial framework.

A comparative study on the non-governmental sources of institutions of higher education in Russia and China was conducted by Liu (2007). The study's conclusion showed that it is interesting to note that China and Russia have moved in the same direction toward the diversification of revenue, but completely independently of each other. Moreover, neither China nor Russia generates significant revenue from private contributions. This can be attributed to the lack of a philanthropic culture and to the lack of a system for the collection of information about current students and graduates in either of these two countries.

Regarding the case of Thailand, Schiller and Liefner (2007) carried out a study on the effect of changes in Thai higher education funding, in particular, the diversification of funding through industry-universities links; the data was based on interviews with highly experienced administrators and professors at five universities in Thailand. The investigation found that most institutions of higher education are only just starting to move from a basic level of academic capabilities to an intermediate level, which is because most young Thai professors have acquired knowledge from, and trained in, countries with advanced technology. However, most of their research have not reached commercial levels yet.

In another instance of research conducted within the Asian continent, Dao (2015) conducted a study on several issues related to higher education funding in Vietnam; the author used a qualitative approach through interviews with current senior managers, former senior managers, and current middle managers. The investigation's results show that the revenue structure in Vietnam includes around 40% of revenue from government support, around 40% from tuition fees, and cooperation and service projects contribute about 20% to the total funding sources.

A study conducted in Poland by Rozmus and Cyran (2012) on income diversification of Polish universities found that for the majority of universities, the principal and noticeably dominant income source are the revenues generated from teaching activities. In 2010, 78.5% of universities' incomes came through teaching activity, 15.9% through research activities, and the remaining income, 5.6%, from various minor activities such as the sale of goods and materials, and other operational revenues. Consequently, they revealed that "the current diversification of universities' revenues appears to be just a fiction" (Rozmus & Cyran, 2012, p. 64). The authors recommended that the Polish universities should follow universities, which have been successful in dealing with the diversification of their revenues such as Oxford, Cambridge, Stanford and Harvard.

In the U.S.A, there is a combination of public funding for research and education, together with a large contribution from private funding. This creates a better situation than that for universities in various other countries (Rozmus & Cyran, 2012). For instance, according to the financial report for the year 2015 issued by Harvard University (Harvard University (2015)), the total operating revenues consists of financial endowment, which is the highest contribution, at 35% of total revenue; another important source was student income (tuition fees, lodging and board), which contributed 20%; 18% comes from sponsored support (grants come from federal sources and central government); 10% comes from gifts for current use (donors/corporations); the remainder comes from a set of minor sources such as copyrights and trademarks, royalties from patents, publications, sales and services income, rental and parking, interest income, etc.

Similarly, the University of Stanford has a similar income structure. Based on the financial report issued by Stanford University, Stanford University (2015), the main income sources were derived from sponsored research, 28%; endowment income (endowed lands, funds functioning as endowment and term endowment funds), 19%;

student income (tuition and fees from graduate and undergraduate programs and board and room), 11%; health care services revenue, 17%; current expendable gifts, 10 %; and the remainder includes various activities (copyrights and trademarks, royalties from patents, publications, sales and services income, rental and parking, interest income, etc.).

It is worth mentioning that the revenue generation by public higher education institutions is impacted by a set of factors. In general, governments can steer and influence the behaviour of public higher education institutions towards particular aims through funding, laws, or policies (Jongbloed, 2004). A study conducted on university autonomy in Europe, as carried out by Estermann, Nokkala, and Steinel (2011a), concluded that greater university autonomy allows for better ability to generate funds from different non-government sources.

Along with enhanced and adequate institutional autonomy, there are other legal arrangements that might facilitate the engagement of institutions with income generation activities. Several scholars (e.g. Estermann & Pruvot, 2011; Jongbloed, 2004; OECD, 2008b) added that the laws and regulatory frameworks in which public institutions operate have a significant impact on their efforts towards revenue generation; this means that universities will be able to generate additional revenue only when the regulatory frameworks allow them to do so. Estermann et al. (2011a) added that universities are supposed to be given the right to create entities governed under private law in order to grant them organisational and financial flexibility to generate alternative income. Moreover, the condition of the surrounding industry (Gulbrandsen & Smeby, 2005), regional conditions (Friedman & Silberman, 2003), and incentives and funding in the organisational environment are also important. Also, it has been reported that the characteristics of each institution might influence the revenue generation. The principal environmental features impacting on institutions include economic, political, social, and the trends in technology faced by higher education institutions (Gulbrandsen & Smeby, 2005; Sporn, 2001).

Furthermore, the diversification revenues can be influenced by resource allocation mechanisms. For instance, governments can encourage partnerships between the business and academic communities, support national (regional or local) economic development objectives, undertake research and development activities within certain scientific fields, and accept students from disadvantaged societal backgrounds, or by using targeted

financing mechanisms (OECD, 2008b). Such mechanisms can either incentivise or create obstacles for public universities to generate various revenues (Salmi & Hauptman, 2006a).

4.6 Factors influencing the allocation of financial resources to universities

Broadly speaking, governmental budgeting for higher education is a complicated process, and there are several factors that influence it. At the macro level, higher education institutions function within a larger system of political, economic, and cultural constraints that impact the institutions' abilities to garner government resources (Weerts, 2014). Nevertheless, the literature shows that the studies conducted on factors impacting financial allocation decisions have been mostly concerned with sectors such as the industrial and commercial, with limited research concerning the other public sectors, including the higher education sector. Budget-related research in the higher education area has emphasised the impact of three critical factors: political influence, economic conditions, and student headcount (Cheong Cheng et al., 2002; Fethke, 2006; Kelchen, 2016; Keppler, 2010; Sangiumvibool & Chonglertham, 2016). However, these three factors are some of the most mentioned in the related literature, and are considered to be dominant in the process of decision making. Therefore, it is clear that social factors have not received sufficient attention through the existing literature.

Moreover, the funding of higher education across the world has been impacted by the pressures arising from several international and national factors, such as the interests of stakeholders and customers of higher education, the economic development levels of each country, the restructuring of the economy, the political regime and political ideology, the internationalisation of higher education, and the globalisation of the economy (Cretan & Gherghina, 2015).

The following sections are an attempt to review the literature that concentrates primarily on the influences of political and economic factors on government funding for higher education institutions. Therefore, how governments allocate their scarce financial resources raises questions concerning the variations in such decisions across countries. In that vein, the question that should be asked, and to which an answer should be attempted, through the following sections is one of the factors that impact financial resource allocation for higher education institutions (Lago-Peñas & Lago-Peñas, 2009; Potrafke,

2011a; Sangiumvibool & Chonglertham, 2016). The purpose of this question is to identify the factors that have interacted to shape the funding model, which is currently being used in Libya for higher education funding.

4.6.1 Economic factors

Governments around the world may not be able to support public services for a long time without the availability of adequate public funds as derived from traditional sources of public revenues (i.e., taxes). However, other ways of providing money, such as borrowing, are not a long-term solution for government to maintain its support of public services, especially during tough economic times. Hence, economic realities are principal factors in determining the levels of public support for all government services, regardless of the degree of importance of that service (Amy, 2016; Experton & Fevre, 2010; Farhan, 2014; Jongbloed, 2004; Lepori et al., 2007; Teixeira & Koryakina, 2013). As a result, the extent to which governments fund higher education depends on the fiscal capacity of a country to invest in higher education.

Government spending on public programmes (e.g., education, health care, etc.) are guided by present and forecast economic conditions in any given country. Askari (2016) argues that there is no exceptional public service that has sufficient protection to overturn any funding cut. Thus, as higher education is among such public services, “higher education is not an island in the sea of a nation, and it may not be separated from the mainland of a country” (Askari, 2016, p. 1).

Nevertheless, a strong fiscal capacity does not necessarily reflect greater support from government for public higher education. In wealthier countries, it may be assumed that citizens are able to cover a larger portion of the higher education cost, which may reflect the fact that some wealthy countries have a strong private higher education system, and are thus less dependent on the public sector to educate their students (Weerts & Ronca, 2012). By the same token, Perna, McLendon, Tandberg, and Hillman (2014) increased economic production may lead to the reduction in a country’s need to invest in need-based financial aid; at the same time, a government should increase its interest in merit-based financial aid.

A set of studies (e.g. Michael K. McLendon et al., 2009; Sangiumvibool & Chonglertham, 2016; Weerts, 2014; Weerts & Ronca, 2012) suggest that the availability of national revenues, overall tax capacity, and unemployment rates are among the most

important influences that determine the levels of government funding for public higher education institutions. For example, a study has been conducted on the factors influencing governmental allocation to higher education students in The U.S. (Perna et al., 2014). The authors used the panel dataset, using data derived over a 21-year period from 49 states, and analysed this data using descriptive statistics for the research variables. Regarding the relationship between the economic conditions and government allocation to higher education, the results show that higher per-capita wealth levels have a positive relationship with higher expenditure both on allocations and merit-based student aid.

Another study on state support for higher education institutions, which used the mixed effects model for 21060 individuals from 1053 institutions in the U.S. (Weerts & Ronca, 2012) The study concluded that state allocations are likely to be lower in states which have higher registered unemployment rates, whilst the model also reveals that an increase in the unemployment rate of 1% translates into a 7% reduction in higher education funding. The study also suggested that the correction budgets have a strong impact on other governmental priorities (e.g., basic education, health care) in reducing government support for higher education. For these same indicators, a study using a Cox proportional hazards model for analysis of the data for the period 1980-2009 was undertaken by (Amy, 2016). The study examined declines in higher education allocation to higher education institutes in the U.S.; the findings show that political and economic conditions are the most indicative of dramatic cuts in budget; it also shows that a high unemployment rate increases the possibility of budget reductions, while wider income inequality and rapid increases in tax revenue are protective against cuts.

One of the first studies conducted by Adams (1977) examined how governmental funding to higher education institutions is impacted by economic conditions. The author hypothesised that because countries have to balance their budgets (income and expenditure) each year, with better economic conditions, governments are able to increase their expenditure; on another hand, weaker economic conditions force reductions in government funding.

A number of authors (e.g. Kane, Orszag, Apostolov, Inman, & Reschovsky, 2005; Okunade, 2004; Weerts & Ronca, 2012) have sought to investigate how other budgetary demands influence government allocations to higher education. There is some evidence for the inclusion of the measures of other demands (other than higher education) on

budget, since in the light of limited resources, the expansion of particular state programs can impact all other sectors. Researchers (e.g. Amy, 2016; Delaney & Doyle, 2007; Ferlie et al., 2008; Fowles, 2014) generally agree that during times of financial stress, the first category of government discretionary expenditure to receive cuts is higher education; this is because higher education is more capable and resilient to the generation of its own revenues, unlike most other public organisations. This has led to higher education being known to as the “balance wheel” of governmental budgets (Fowles, 2014, p. 275).

Besides, to raise tuition fees, legislators are aware that institutions may also look to philanthropic donations, endowments, research activities, and auxiliary revenue generation. Moreover, they can decrease spending through other strategies such as increasing faculty teaching loads and hiring more part-time staff; also, universities seek additional higher-paying, international students in times of austerity (Amy, 2016; Jaquette & Curs, 2015; Li, 2017).

Moreover, there is empirical evidence to suggest that other budgetary demands affect government support for higher education. (Tandberg, 2008, 2010a) and (Weerts & Ronca, 2012) both include other budgetary demands along with robust economic, demographic, and political variables with their analyses. (Tandberg, 2008, 2010a) found the sharing of the Medicaid demand on governmental budgets to be a statistically significant variable regarding shares of government budgets to higher education, as well as direct allocations to higher education. By utilising similar methods, though with institutional appropriations as a dependent variable, Weerts and Ronca (2012) found a significant negative relationship between government expenditure on corrective and institutional appropriation outcomes. Concerning higher education, Ness and Tandberg (2013) concentrated on capital spending at the state level, and asserted a negative relationship between general fund expenditure and Medicaid spending. Furthermore, they also found that the same relationship did not extend, specifically, to capital expenditure on higher education and Medicaid, which they took as confirmation of their hypothesis that the process of capital expenditures determination should not be supposed to be congruent to funding expenditure on higher education.

Unlike studies addressing the influence of economic factors on government allocations to higher education, other studies have examined how political factors influence such financial allocations.

4.6.2 Political factor

Broadly speaking, the political environment is an important aspect in understanding the levels of government allocations to higher education institutions; partisanism, political competition, legislative professionalism, and gubernatorial power have all been shown to influence appropriation levels for public higher education institutions (Michael K. McLendon et al., 2009; Weerts, 2014).

Although the subject of governmental financial support for higher education has received adequate attention in the literature, the influence of political factors over of the process of financial appropriations has not, to the best of the researcher's knowledge, received sufficient attention except for several recent attempts. In general, as a result of the ongoing processes of liberalisation of international capital markets and goods, as well as a response to the process of globalisation, political parties have lost most of their impact on the distribution of government funds among the various sectors, as Herwartz and Theilen (2017) argue.

However, Perna et al. (2014) provided several aspects associated with political systems that may have affected decisions regarding government funding for higher education, such as legislative professionalism, party affiliation of the governor, political ideology, gubernatorial power, party control of the legislature, and electoral competition.

The professionalism of legislative authority represents the degree to which a country's legislature resembles the parliament in some countries and Congress in the United States, meaning a legislative body that: remains in session during whole the year; provides its members with the capacity for law-making; and compensates its members at relatively high levels (Barrilleaux & Berkman, 2003). Based on several studies (e.g. Michael K. McLendon et al., 2009; Tandberg, 2010a, 2010b), it has been argued that the decisions of professionalised legislatures are usually positive and in favour of higher education appropriations. In light of these findings, Perna et al. (2014) expected legislative professionalism to be positively associated with available government sources and merit-based aid, and negatively related to need-based financial aid.

Regarding electoral competition, Perna et al. (2014) argued that when there are highly competitive state elections, political leaders will vie for votes by offering various services to the largest possible numbers of people, thus endeavouring to obtain more votes for themselves. Therefore, increased electoral competition levels are positively related to

financial aid, including higher education funding. In addition to the previous political factors, there is also legislative partisanship and gubernatorial partisanship. For example, in the U.S. the republicans are traditionally strong proponents of limited public expenditure, particularly in redistributive public policy areas, such as public provision of educational services and social welfare (Michael K McLendon, Mokher, & Flores, 2011). Several studies have revealed that higher levels of Republican control of Republican representation in legislature, as well as the governorship, are negatively associated with government appropriations for higher education (Michael K McLendon et al., 2011; Tandberg, 2010a, 2010b)

As evidence for empirical studies, research has been conducted over the last decades to analyse the influences on governmental financial allocations to higher education institutions, with emphasis on the role of politics (e.g. Brender & Drazen, 2013; Dar, 2012; Herwartz & Theilen, 2017; Michael K. McLendon et al., 2009; Potrafke, 2011a; Rexe, 2015; Sangiumvibool & Chonglertham, 2016; Tandberg, 2010a; The European University Association (EUA), 2015). Moreover, sometimes, the impact of political factors has either been given some degree of attention, often improperly measured and undervalued, or have been ignored completely. This has led to the conclusion that political factors do not have a significant influence on the governmental funding of higher education (Tandberg, 2010b). Therefore, the following section reviews the relevant literature concerning the impact of political factors on government funding of higher education institutions.

Regarding the role of interest groups as one of the political factors that plays a role in state policy making, Tandberg (2010a) argued that, generally, interest groups have a powerful and clear impact on establishing policy and identifying the priorities of governmental expenditure. However, there are a few attempts that have been carried out to analyse the influence of interest groups on government support of higher education (Michael K. McLendon et al., 2009; Tandberg, 2010a).

(Jacoby & Schneider, 2001; Nice, 1984) argue that institutions of higher education and other stakeholders have a logical reason to care about such issues. Interest groups are an important influence on executive and legislative actions, and this includes various matters concerning sectors' budgets; interests with more resources (access, money, information,

etc.) will often receive better results than interests with fewer assets, or those who utilize them, less effectively.

For example, in a study conducted by Tandberg (2010a) on the politics of the government funding of public higher education, the author used multivariate analysis, employing analysis of cross-sectional time-series for each of the models. The results revealed that interest groups play a significant and positive role in policy making within states. This result is in line with the previous literature (V. Gray & Lowery, 2000; Tierney, 1994).

A political ideology is an additional source of possible political system influence. Perna et al. (2014) presented a definition of political ideology as being “a set of attitudes toward politics, whether those of elected officials or a state’s citizenry”. (p. 149). A set of research has addressed the influence of political ideology on government financial allocations to higher education institutions in several countries.

For instance, regarding OECD countries, a study examined the influence of government ideology on the allocation of public spending in OECD countries (Potrafke, 2011a). The study analysed two datasets covering the periods of 1970-1997 and 1990-2006. The results indicated that government ideology had a weak influence on the government budget composition; however, leftist governments increased their expenditure on public services in the 1970–1997 period and on education in the 1990–2006 period. Based on the author’s perspective, such results imply the education sector has become an important spending category by which leftist parties reflect their political visions to voters from all societal groups. This is consistent with previous studies that have investigated the influence of government ideology on total education expenditure, and mostly suggest that overall education expenditure is higher for leftist governments in OECD countries (Ansell, 2008; Busemeyer, 2009). By contrast, Jensen (2011) argues that there is no suggestion that educational expenditure was higher under leftist governments in the 1980–2000 period in OECD states. In addition, the author mentioned that Ansell’s model shows that right-wing governments are usually supporters of increased expenditure on higher education, but leftist parties are often proponents of other policy areas, such as social policy.

A recent study was conducted by (Herwartz & Theilen, 2017) in 21 OECD economies in order to analyse the actual impact of government ideology in shaping the composition of public expenditure over the period 1980–2013. The results are largely consistent with

previous studies, which indicated that government ideology has no particular direct impact on non-social and social expenditure.

A study was conducted in West German States by (Potrafke, 2011b) on the effects of government ideology on the public expenditure on higher education in the period between 1974-2006. The author used annual data on public spending, as provided by the Statistical Office of the German Federal Republic. The results revealed that right-wing governments allowed greater expenditure on universities, whereas leftist governments very slightly increased public spending on higher education institutions. These results are inconsistent with several empirical studies (e.g.H. Berger & Woitek, 1997; Schneider, 2010; Seitz, 2000) that have investigated the extent of the influence of government ideology on decisions concerning government expenditure on education in Germany, which indicated that the incumbent government ideology did not have a systemic effect on budgeting decisions.

Another study conducted on Thai higher education by Sangiumvibool and Chonglertham (2016) agreed with previous studies in of the sense that political influence is not a statistically significant factor in budgeting decisions for higher education institutions; it also revealed that student headcounts and economic conditions did not play a significant role in the decision-making process concerning budgetary expenditure on higher educational services.

Another study was carried out in the U.S. on factors influencing government expenditure on campus appropriations over the 1990-2010 period by Perna et al. (2014); the dataset, consisting of 49 states over the investigation period, contained 1,029 observations. The study indicated several findings: the presence of the strength of Republican representation and a Republican governor can each be associated with increased state expenditure on need-based financial aid; it also suggested that increased wealth has positive associations with state expenditure programs on merit-based financial and state allocations for higher education. Another study conducted in the U.S. by Tandberg and Ness (2011) this time investigated the factors influencing government allocation, specifically the capital expenditures on higher education; the study used panel data including political, demographic, and economic variables for all 50 U.S. states for the period 1988-2004. The study concluded that there are a set of factors that significantly affect the decision-making process concerning state capital allocations to higher education institutions; the

factors are political culture, electoral competition, legislative professionalism, interest groups, voter turnout, budgetary powers of the governor, and higher education governance structures.

In the vein of political influences on budgeting decisions, Bercoff and Meloni (2009) conducted a study of the factors impacting the distribution of federal funds among provinces in Argentina. The authors developed an econometric model to determine the factors affecting the distribution of federal funds amongst Argentina's 23 provinces. The model consists two types of variables: the first type describes the institutional and political features of the process of distribution. These indicators capture the impact of the various political aspects that participate in the distribution process: Congress, the provincial governors, and the Executive. The second group consists of economic factors used as controls. The study found that the capital expenditure distribution is dominated by the governors and executive action. Presidents favour the allocation of increased funding to their home provinces and provinces administered by governors affiliated with their parties.

An early study on the factors influencing university revenues in all 50 states in the U.S. by using data for 428 campuses distributed across all states; in general, it concluded that government funding and tuition fee revenues in public universities are influenced by both economic and political factors (Lowry, 2001). The study also provided further details about the results: government funding among universities depends on the relative sizes of the various interest groups in each state; it also depends on the public universities abilities to present a united front when dealing with the state government. Differences in government funding at specific campuses can be attributed to differences in the political benefits of political officials arising from the supply of academic research, instruction, and public service.

Another study addressed further issues related to political factors, namely the effect of elections on the composition of government spending. The study was carried out by (Brender & Drazen, 2013) using a dataset created on the composition of government expenditure in 71 democracies over the period 1972–2009. The study found that leaders' replacements have no significant impact on the composition of government expenditure in the short term, even after allowing for various economic and political variables. Nevertheless, the results show that changes in medium-term leadership are associated

with significant changes in spending composition, but such changes are usually limited to developed countries.

Regarding the setting of tuition fees, a study conducted by Rexe (2015) aimed to identify the factors influencing government decisions to change their policy regarding the existing tuition freeze in Canada; the data were collected through interviews and relevant documentary materials, and used content analysis to analyse the data. The analysis revealed important activities for agenda-setting, and also insights into how policy coalitions impact decision making in such a policy arena, including setting tuition fee levels. The results indicated that there is a negative influence from the media and the business community on the decision to freeze tuition.

Several scholars (e.g. Dreher, 2006; Dreher, Sturm, & Ursprung, 2008; Sanz & Velázquez, 2007; Shelton, 2007) have raised the issue of the influence of globalisation on the distribution of government expenditure among sectors. In general, such studies indicated that there is no consensus regarding the effect of globalisation on government spending.

Dreher (2006), for example, used panel regression for data over the period 1970-2000 to investigate whether social spending, including education, has been impacted by globalisation in OECD states. The results suggest that government expenditure on such sectors has not been influenced in this regard. These results support those of Dreher et al. (2008), who conducted their own study into the effects of globalisation on the composition of government expenditure; a part of the study considered several sectors including education. The study concluded that globalisation did not influence government expenditure on such sectors in any notable way. However, other studies have suggested different results. For example, a study carried out by Bretschger and Hettich (2002) on the effects of globalisation on government expenditure in 14 OECD countries used panel data for the period 1967-1996; the study found that globalisation has a significant negative impact on government spending.

Considering that some countries borrow from international organizations; in this regard, several scholars (e.g. Nooruddin & Simmons, 2006; Woodhall, 2007) suggested an additional factor that might have an influence on the expenditure decisions on the borrowing countries, which is the trends of international organisations. They argued that the philosophy of such organisations could potentially influence government decisions

on fund distribution among public sectors, including higher education. For example, the International Monetary Fund (IMF) interferes in education funding policies, and sets conditions requiring the implementation of policies for renewing the loans granted to certain borrowing nations. These conditions often force countries to reduce government funding to key social programs, such as education and healthcare, and push them to privatise these services (Nooruddin & Simmons, 2006; Woodhall, 2007). The World Bank has also been blamed for the introduction of both student loans and tuition fees. Several reports issued by the world bank recommended “the introduction of cost-recovery in higher education, including tuition fees and student loans, together with a reallocation of public expenditure to primary education” (Woodhall, 2007, p. 7).

4.7 Limitations of previous studies

Based on the above review of empirical studies, several gaps and limitations may be noted, which the present research aims to bridge, can be shown as follows:

Most of the empirical studies concerning higher education funding were conducted in developed countries, with only a few empirical studies carried out concerning developing countries, in particular, Arab and North African regions. Nevertheless, apart from the empirical studies (El-Sheikh et al., 2012; Mah’d, 2014) which were conducted on Jordanian private universities, several studies have been carried out in various Arab countries (e.g. Abdessalem, 2011; Bougroum & Ibourk, 2011; Kabbani & Salloum, 2011; Kanaan et al., 2011; Nahas, 2011). These studies were descriptive and theoretical reviews that suffer from a lack of any empirical evidence.

Regarding the Libyan context, and according to the best of the researcher’s knowledge, there is no study at the academic and government level that considers the funding of Libyan public higher education institutions. Thus, the present study is considered to be the first study to addresses the topic of public higher education finance in Libya.

The majority of studies that addressed issues of public higher education funding (Ahmad et al., 2015; Claeys-Kulik & Estermann, 2015; Dao, 2015; De Villiers & Ntshoe, 2013; Mutiso et al., 2015; Schiller & Liefner, 2007; Toguebaye, 2015) have concentrated on the point of view of higher education institutions including officials, professors, students, and others (beneficiaries of financing), while they have not paid sufficient attention to the perspective of the government (funder). However, this study is one of the scarce amount

of research that has covered both perspectives (government and higher education institutions) in a single study.

Previous studies were varied regarding the theoretical underpinnings they adopted, and which can be categorised into several groups. Studies have not adopted a theory. (e.g. Agasisti & Haelermans, 2016; Agasisti & Wolszczak-Derlacz, 2016; da Costa Marques, 2015; Dao, 2015; Ochwa-Echel, 2016); studies have adopted Agency Theory (Ahmad & Farley, 2013; Bolli et al., 2016; Sangiumvibool & Chonglertham, 2016; Schiller & Liefner, 2007); other studies have used Resource Dependence Theory as their theoretical framework (e.g. Cruz-Castro & Sanz-Menendez, 2015; Fowles, 2014; C. Jensen, 2011); finally, the authors of such studies have adopted Human Capital Theory (e.g. Ahmed, 2015; Oketch, 2016; Owings, Kaplan, & Pirim, 2012). The following table shows studies have adopted theories and it provided several instances of studies did adopted theories as theoretical framework.

Table 4-1-1: Articles adopted theories as theoretical underpinning.

Author	Title	Year	Country	Theory adopted
(Warue & Ngali, 2016)	Structural Factors for Students' Loans Recovery at the Higher Education Loans Board (HELB) of Kenya.	2016	Kenya	Agency theory
(Bolli et al., 2016)	The differential effects of competitive funding on the production frontier and the efficiency of universities	2016	Eight European countries	Agency theory
(Ahmad, 2013)	Federal government funding reforms: issues and challenges facing Malaysian universities	2015	Malaysia	Agency Theory
(Ahmad, 2013)	The impact of government funding reforms on the strategic planning of Malaysian public universities.	2015	Malaysia	Agency Theory
(Schiller & Liefner, 2007) Daniel Schiller	Higher education funding reform and university–industry links in developing countries: The case of Thailand.	2007	Thailand	Agency theory
(Kivistö, 2005)	The government-higher education Institution relationship: theoretical considerations from the perspective of agency theory.	2005		Agency theory

(Liefner, 2003)	Funding, resource allocation, and performance in higher education systems	2003	Six European universities	Agency theory
(Cruz-Castro & Sanz-Menendez, 2015)	Policy change and differentiated integration: Implementing Spanish higher education reforms.	2015	Spain	Resource dependence theory and Institutional theory
TYK Antunes	Diversification in higher education: the case of Portugal.	2013	Portugal	Resource dependence theory and Institutional theory
(Gebreyes, 2015)	Revenue generation strategies in Sub-Saharan African universities	2015	Sub Saharan African countries	Resource dependence theory
(Fowles, 2014)	Funding and focus: Resource dependence in public higher education	2014	The United States.	Resource dependence theory
Carsten Jensen	Capitalist Systems, Deindustrialization, and the Politics of Public Education	2011	18 European countries	Resource dependence theory
(Jung & Moon, 2007)	The Double-Edged Sword of Public-Resource Dependence: The Impact of Public Resources on Autonomy and Legitimacy in Korean Cultural Non-profit Organizations	2007	Korea	Resource dependence theory
(Hanushek, 2016)	How higher education institutions contribute to the growth in regions of Europe?	2017	Regional level in Europe	Human capital theory
(Oketch, 2016)	Financing higher education in sub-Saharan Africa: some reflections and implications for sustainable development	2016	low-income countries of sub-Saharan Africa	Human capital theory
(Hanushek, 2016)	Will more higher education improve economic growth?	2016	OECD countries	Human capital theory
(Ahmed, 2015)	Public and private higher education financing in Nigeria.	2015	Nigeria	Human capital theory
(Owings et al., 2012)	Education as an investment in turkey's human capital.	2012	Turkey	Human capital theory
(Ochwa-Echel, 2016)	Private universities in Uganda: Issues and challenges	2016	Uganda	No theory
(Agasisti & Haelermans, 2016)	Comparing efficiency of public universities among European countries: Different incentives lead to different performances.	2016	13 Dutch and 58 Italian public universities	No theory

(Dao, 2015)	Key challenges in the reform of governance, quality assurance, and finance in Vietnamese higher education a case study.	2015	Vietnam	No theory
(Weerts & Ronca, 2012)	Understanding differences in state support for higher education across states, sectors, and institutions: A longitudinal study	2012	The United States	No Theory
(Rozmus & Cyran, 2012)	Diversification of University Income-Polish Practice and International Solutions	2012	Poland	No theory
(Liu, 2007)	Revenue diversification: a comparison of Russian and Chinese higher education	2007	China and Russia	No theory

Source: Designed by a researcher based on literature review.

However, this study employs four theories (Human Capital, Agency, Resources Dependence Theory, and Institutional Theory) as complementary theoretical frameworks in order to guide the study analysis and discussion.

With regards to factors influencing higher education funding as a part of literature, the majority of existing studies (Amy, 2016; Dreher et al., 2008; C. Jensen, 2011; Lacy, Fowles, Tandberg, & Hu, 2017; Ness & Tandberg, 2013; Sanz & Velázquez, 2007) were conducted in OECD countries, particularly the United States. Furthermore, they used econometric techniques, and the main data sources were those of secondary data. Though these studies intended to contain all the variables affecting government allocations to higher education institutions, there may be other factors not included in their investigations. However, this research uses a qualitative approach, which is based mainly on interviews and documentary analysis; therefore, the participants would mention as much as possible of relevant aspects, which may not be mentioned by using other methods.

A number of prior studies (e.g. Dar, 2012; Dar, 2015; C. Jensen, 2011; Nooruddin & Simmons, 2006; Sanz & Velázquez, 2007) have attempted to examine the impact of political factors on government higher education allocations. Another set of studies (Amy, 2016; Ness & Tandberg, 2013; Perna et al., 2014; Tandberg & Ness, 2011) have investigated the influence of political and economic factors on government financial allocation to higher education institutions. A third group of study (Dreher, 2006; Dreher

et al., 2008; Michael K McLendon et al., 2011; Tandberg, 2010a, 2010b) focused on the effect of mixed factors (globalisation, demographic). However, social factors have not been taken into consideration as factors influencing the decisions behind government resource allocation to higher education institutions.

4.8 Summary

This chapter has presented a discussion on the concept of higher education funding, its sources, the mechanisms and common criteria using for distributing financial resources to universities across the world. It has also provided a comprehensive overview concerning how governments justify their funding, including economic, social, and political motivations found in earlier studies. Moreover, the chapter highlighted the key factors influencing the allocation of financial resources. The higher education institutions face many challenges related to financial aspects; these issues have also received sufficient attention within the literature review chapter. Finally, the gaps in the previous studies have been explored.

Chapter 5 - The Research Methodology

5.1 Introduction

This chapter aims to provide a description of the research methodology and its importance, and the choice of a specific methodology in order to obtain the information needed to accomplish the key objectives of this study. This chapter presents the justification for adopting this particular methodology and the choice of sampling and sample size.

This chapter presents a discussion of the philosophical framework that can be adopted within social science research in general, and which can also be considered appropriate for this study. The research design is fully described, with particular attention on the research strategy and methodology. Data collection instruments, data analysis tools and evaluation and piloting approaches for data collection are also presented this chapter. A discussion on issues of reliability, validity, and ethical considerations are also elaborated on. The researcher considered it appropriate to commence this chapter by setting out a brief introduction within which the research problem, the research questions and the objectives as stated in chapter one are discussed.

5.2 Research problem, aim, objectives, and questions

Earlier chapters identified the research problem, which is the range of challenges facing higher education in Libya, notably issues of finance such as dependence on oil revenue as the main source of national income, inadequate funding for universities, lack of financial diversification, and demographic pressures for increased expansion, amongst other important challenges. All of those challenges, and their accompanying repercussions, have consequences for higher education and social and economic development.

The principal aim of this study is to explore, understand and examine the government policies relevant to Libyan public universities. The principal aim out of the field work in this study is to collect information and opinions from those who have been directly associated, or have direct experience, with these issues. This empirical and in-depth field work will help to understand, and hopefully will provide the answers to, the research

questions put forward in chapter 1 of this study. The aim is to achieve the following objectives:

- To provide an analytical view and find the necessary information needed to establish a full picture of the current model of allocation mechanisms in public university financing in terms of funding sources, resource allocation criteria, and motivation for the government.
- To identify the economic, social, and political influences on the allocation of financial resources to universities.
- To identify the challenges facing Libyan universities with respect to funding.

To achieve the above aims and objectives, this study attempts to answer the following research questions:

1. What is the current model of funding allocation for Libyan universities in terms of:
 - i. funding sources;
 - ii. criteria used for distributing resources among universities; and
 - iii. motivations for government funding?
2. What are the economic, social, political and other factors that influence financial resource allocation to universities?
3. What are the challenges that face these universities concerning financial aspects?

5.3 Philosophy and paradigm of research

A research paradigm is “a philosophical framework that guides how scientific research should be conducted”. Philosophy is “a set or system of beliefs (stemming from) the study of the fundamental nature of knowledge, reality, and existence” (Collis & Hussey, 2014, p. 43). In order to attempt to deal with a phenomenon and understand its nature, experience, reasoning and research are the available means (Cohen, Manion, & Morrison, 2007). Research based on these classifications is simply considered a long process of collecting data, examining them in light of existing theories, gaining empirical facts and reaching a comprehensive conclusion (Collis & Hussey, 2009). Thus, research can be defined as the systematic study to prove hypotheses and add to existing knowledge (Walliman, 2006).

Similarly, Saunders et al. (2012) refer to research as “something that people undertake in order to find out things in a systematic way, thereby increasing their knowledge” (p.5). The phrase “systemic way” suggests that research is not merely based on beliefs or assumptions, but on the logical relationship(s) between stages of research. Meanwhile the phrase “to find out” suggests that any research, within any field, should have properly framed objectives, and seek to achieve them and address any associated questions that need to be answered (Ghauri & Grønhaug, 2010). It also contributes to knowledge, which comes as a result of providing the answers to these questions.

Social science research is difficult because it investigates human beings, whether as individuals or in a form of organisations, simply because different people views things differently, the result of their philosophies and perceptions of reality and knowledge varying with individual experience (Saunders et al., 2012). Moreover, Saunders et al. (2012) consider the philosophical knowledge of the researcher as the basis by which to posit researchers’ thoughts and language in terms of their analytic and linguistic understanding of the nature of research.

For a researcher, conducting research requires an understanding of the philosophical issues related to the research topic. He or she usually forms his or her own philosophy before carrying out any associated research. Thus, Easterby-Smith et al. (2012) suggest that understanding the philosophy of research assists in the design of the most appropriate methodology for a particular study. It also enables the researcher to look for alternative designs for specific research. This also helps the researcher to gain the appropriate evidence required and phrase its interpretation. Therefore Saunders et al. (2012) believe that an understanding of the research philosophy will assist the researcher in gaining deeper insights into the research at hand and thus further develop their knowledge.

Despite the various philosophical positions of scholars, there are ultimately just two types of paradigm: positivism and interpretivism. Certainly, these are considered the most popular, as agreed by many scholars (Collis & Hussey, 2009; Easterby-Smith et al., 2012; Tashakkori & Teddlie, 2010). Nevertheless, this apparent restriction to two philosophical paradigms does not mean that research is interpretivist if it is not a positivist; rather, it means that a researcher can adopt a combination of methods relating to either the positivist or interpretivist paradigms. Thus, one should not consider these paradigms as somehow being opposites; the difference between them is more one of different beliefs

about the nature of social reality (Kuhn, 1996; Marshall & Rossman, 1999). In order to understand both paradigms, a brief account of each is needed, and will be given in the following sections.

5.3.1 Positivism

Positivism is “a paradigm that originated in the natural sciences. It is based on the assumption that social reality is singular and objective, and is not affected by the act of investigating it. The research involves a deductive process with a view to providing explanatory theories to understand social phenomena” (Collis & Hussey, 2009, p. 56). In short, it sees human phenomena as constituting facts that can be measured using hypotheses and obtaining results according to experiment, like any natural fact. Positivists utilize large samples and experimental methods to test hypothetical-deductively, and thus seek generalisations. Their results might be used for the modification of an existing theory, or to confirm the assumptions of a theory (Saunders et al., 2012).

The positivists view social reality as externally existent; its properties should be inferred empirically through the application of scientific methods rather than measuring it subjectively. (Saunders et al., 2012). For instance, the positivist paradigm is based on a reality that consists of facts and “researchers can observe and measure reality in an objective way with no influence of the researcher on the process of data collection” (Hennink et al., 2011, p. 14). Reality is seen and can be measured (Sparkes, 1992) from only one dimension by the physical sciences, as removed from its social dimensions which are not always based on logic. Within this paradigm, researchers build their hypotheses from theoretical or statistical models, test them by conducting empirical work, and then accept or reject these hypotheses (Hennink et al., 2011) through their subsequent expression as theories, or otherwise.

However, the positivist paradigm is criticised for its assumptions about an objective measurement of reality that separates the researcher from those researched. Moreover, it ignores the “interactive and co-constructive nature of data collection with human beings” and does not acknowledge “the contextual influences on people’s lives, focussing only on capturing facts” (Hennink et al., 2011, p. 14).

5.3.2 The Interpretivism

Based on Collis & Hussey, interpretivism is:

“a paradigm that emerged in response to criticisms of positivism. It rests on the assumption that social reality is in our minds, and is subjective and multiple. Therefore, social reality is affected by the act of investigating it. The research involves an inductive process with a view to providing interpretive understanding of social phenomena within a particular context.” (Collis & Hussey, 2009, p. 57).

Interpretive research focuses on qualitative deduction to understand human experiences within a specific context. Thus, interpretivism is naturalistic, as it explains the phenomena of the study themselves in their natural situations rather than looking for some mooted cause-effect relationship to understand them. The focus of the researcher is on the meaning people bring to a particular context (Yin, 2014). Therefore, interpreting and analysing is subjective based on how the researcher comprehends the phenomenon of the study. Such an understanding comes as a result of a deep and thorough understanding of the phenomenon and its participants in their natural setting (Creswell & Plano Clark, 2007). Nevertheless, some scholars, such as Saunders et al. (2012), do not share Creswell and Plano Clark (2007) view, claiming that the interpretivist paradigm is unlikely to be applied in investigating management and business-based research, particularly in the case of marketing, organisational behavior and human resource management. Issues of business are usually unique, multiple and complicated because they are socially based, emerging from the research subjects, their understanding of the world as dictated by their perceptions of it, and the influence of their contexts with all its manifestations. Hence, collecting and interpreting data within the interpretivist paradigm are subjective processes, affected by the researcher’s own subjective views. These processes are based on the experiences of participants (Mertens, 2005) as understood, inferred or interpreted by the researcher.

The discussion tackled above indicates that both paradigms are different in terms of viewing, perceiving and interpreting social reality. They also differ in their methods of generating and analysing data, and consequently interpreting it. Therefore, the choice of approach is based on the nature of the research questions, and the researcher's perspective on providing a comprehensive interpretation concerning the phenomenon under study.

Hence, the interpretive paradigm is more suitable to achieving this target than that of positivism because reality is seen as multi-layered and complex. Moreover, there are no hypotheses to be tested or pure facts to be reconfirmed, as the researcher's intention is to attain a thorough understanding of how people see their world.

The current research aims to investigate the government policies relevant to higher education funding in the Libyan context in all its complexity, which is impossible to understand independently of other social players. The choice of the interpretivist paradigm for this study assists the researcher in their own perception of subjective human perceptions of their socially constructed world. This also enables the researcher to understand the various stakeholders in terms of their current views and future vision regarding the funding of Libyan universities. Moreover, adopting this approach also allows the researcher to generate explanations about financial resource allocation amongst Libyan universities, particularly in light of the international tendency towards the rethinking of public support for higher education institutions.

Thus, the interpretive paradigm is widely accepted in research into the financial community and education research because of its flexibility in explaining and predicting the behaviour of both institutions and individuals (Atkins, Wallace, & British Educational Research, 2012; Burton, 2007; Hutchinson & Atkinson, 2013; Savenye & Robinson, 2005).

5.4 Quantitative and qualitative approaches

The choice of the appropriate methodology for the research is fundamental to achieving the research aim and objectives (Ghauri & Grønhaug, 2010). For instance, Wellington (2000) points out that judging the importance of a piece of investigation will be decided through evaluating its approach and employing appropriate methods. To achieve this, sufficient understanding of the problem is required before conducting the research (Ghauri & Grønhaug, 2010). Moreover, Kumar and Metzler (2014) consider the philosophy behind the nature of choosing the inquiry method of the research methodology, that is, whether it should be qualitative or quantitative; likewise, Tuckman (1999) claims that the quantitative and qualitative approaches can be used to answer the same questions. Nevertheless, Bryman (2012) believes that the need to address particular questions and the nature of the study should lead a researcher to exclusively adopt either a quantitative or qualitative methodology.

For instance, studying specific variables and their relationships requires the collection of certain data and appropriate techniques for analysis. However, this does not mean that each approach has its own exclusive approach to collecting data (Wellington, 2007); indeed, both qualitative and quantitative methods can complement each other, and in so doing compensate for the drawbacks of applying each method separately (Creswell, 2014; Miles & Huberman, 1994).

The nature of a study and its purpose are issues that underpin the rationale for choosing the appropriate approach: quantitative or qualitative. This also determines the type of data that will be collected and the expected analysis (Creswell, 2014). The nature of this research, which investigates a process rather than simply a static outcome, requires a qualitative approach, as being more appropriate than a quantitative one. In this domain, understanding the participants' perceptions and the meanings they bring to the context is the main concern of the researcher. This will assist them to "interpret the phenomena in terms of the meanings people bring to them" (N. K. Denzin & Lincoln, 2008, p. 4) .

Choosing a qualitative approach to research would likely arise from the fact "that the approach allows you (as a researcher) to identify issues from the perspective of your study participants, and understand the meanings and interpretations that they give to behaviour, events or objects" (Hennink et al., 2011, p. 9). Furthermore, adopting qualitative research methods helps the researcher gain a "deeper understanding of the social phenomena that would not be obtained from purely quantitative data" (Silverman, 2005, p. 10). The reality is seen differently, and thus is of various manifestations from the viewpoints of the participants (the ones concerned with funding in this study). Economic, political, and cultural values, as well as other dimensions might affect their opinions of reality.

The researcher believes that participants can contribute to contracting reality and this assists the researcher in describing and interpreting the associated human behavior and, consequently, understanding it (Creswell, 2013). Therefore, the current research constitutes an interpretive qualitative study, investigating participants' perceptions (as government agencies and universities officials) about the government policies relevant to financial resource allocation to public universities in the Libyan context. This is considered the first piece of research that has attempted to tackle this phenomenon within the Libyan situation. Moreover, relying on qualitative methods is also appropriate because the subject of university financing is a specialised area, requiring accurate

information to achieving a proper assessment of the problem. It is assumed that only officials who are in charge would be in any position to present relevant information; additionally, because of the sensitive nature of financing issues, a questionnaire may not be the appropriate means of gaining correct or relevant answers (Aina, 2002).

The preceding literature review provides an overview of various perspectives on how community engagement might be understood in relation to state support for colleges and universities. It illustrates the fact that state funding decisions are complex, with community engagement embedded within a larger group of influences that ultimately shape funding decisions. Michael K. McLendon (2003) argues that public funding for higher education is a complex phenomenon and recommended that quantitative methods are limited in the way in which they can deal with factors associated with higher education financing. Therefore, under such conditions, qualitative research provides a design that can better fill the gaps concerning relationships that inform the problem or issue (Creswell, 2013).

This study aims to investigate the different perspectives and perceptions of policy makers, government agencies and university administrators, regarding several aspects of financial resource allocation for Libyan universities. Furthermore, exploring the perceptions of the participants may require the researcher to be flexible in addressing questions to them so as to accommodate unforeseen contextual circumstances. It aims to provide analytical views of finding the necessary information needed to establish a full picture of the current model of allocation mechanisms in higher education finance. In addition, it is an attempt to identify the challenges that face Libyan universities in terms of finance, as well as the future strategies that may contribute to overcoming contemporary challenges in light of the current unstable political and financial situations prevalent across the entire country.

The literature discussed here are largely related to the studies of education economists and were mainly qualitative in nature (e.g. Frølich et al., 2010; Hnat, Mahony, Fitzgerald, & Crawford, 2014; Nkrumah-Young & Powell, 2011). This is because these education economists have dealt with policy issues that could be better explained by seeking a deeper understanding of the phenomena through interacting with the participants, and in some cases through documentation, as evidence. Similarly, in this study, the researcher realised that the research questions could best be answered through a qualitative study because the intention was to conduct an in-depth exploration of the participants'

perceptions as custodians of the knowledge the researcher sought to uncover. Moreover, this intention will enrich the study with firsthand information from the interviewees in a narrative manner. This approach will allow the researcher to carry out comparison of items during the analysis of the data. This point will be further considered later in this chapter.

Another point of great consideration is that financial statistical information is not available to the public (Rose, 2015); even if it is available, they lack accuracy and do not provide sufficient information through which funding system can be assessed (Rose, 2015). Thus, this matter requires direct provision of this information through the words of practitioners and policy-makers. This requires participants representing the various institutions to be included in this study. Thus, choosing to conduct a case study is the most appropriate strategy to obtain such intensive information. The next section presents the research strategy: that of case study.

5.5 Case study

Case study as a research strategy enables the researcher to gain a thorough understanding of the perspectives of participants and their experiences in a natural context. Yin (2014, p. 13) considers it a useful strategy when “a how or why question is being asked about a contemporary set of events, over which the investigator has little or no control”. Similarly, using other methods of inquiry might not offer the same degree of insight as case study does. “Case studies are one approach that supports deeper and more detailed investigation of the type that is normally necessary to answer how and why questions” (Rowley, 2002, p. 17). Using case study helps a researcher to “explain why certain outcomes might happen—more than just find out what those outcomes are” (Denscombe, 2010, p. 53).

Scholars who have used and evaluated case study, such as Yin (2014, p. 18), define it as “an empirical inquiry that investigates a contemporary phenomenon within its real life context, especially when the boundaries between phenomenon and context are not clearly evident”. This definition demonstrates the ability of case study to conduct an investigation into a particular phenomenon in its context, rather than replicating it in an experimental setting or a laboratory, in order to obtain a detailed description and a better understanding of that particular phenomenon. Furthermore, (2014, p. 21) refers to case study as “in-depth exploration from multiple perspectives of the complexity and uniqueness of a particular project, policy, institution, programme or system in real life context”. It is “a

detailed examination of one setting, or a single subject, a single depository of documents, or one particular event” (Berg, 2009, p. 317). The researcher argues that for methodological purposes, case study research is best defined as “an in-depth study of a single unit (a relatively bounded phenomenon) where the scholar's aim is to elucidate features of a larger class of similar phenomena” (Gerring, 2004, p. 341).

5.5.1 Rationale of case study

The rationale for choosing case study as a research strategy is to discover a phenomenon and understand it from the perspectives of those being studied. Case study as a research strategy enables the researcher to obtain a thorough understanding of the participants’ perspectives and experiences in a natural context. It also attempts to make significant contributions to knowledge and to understand the participants’ perceptions of (government agencies and universities officials) either government policy makers or individuals relevant to allocating financial resources to public universities in the Libyan context in light of the current financial and political situations. Additionally, it aims to achieve “naturalistic generalization”, a quite different kind of generalization which is a characteristic of science (R. Stake, 1995).

5.5.2 Distinctive characteristics of case studies

Through the strategy of a case study, the researcher will be able to reach a rich description of a complex social phenomenon as embedded within a certain cultural context. It is commonly used in aspects related to the education, and management and financial studies (Merriam, 1988; R. K. Yin, 2012). Thus, the next section will give a detailed discussion on the various characteristics of this strategy that have encouraged other researchers, and why it has been selected for the current study.

5.5.3 Particularity

Case study investigates the “particularisation, not generalisation” of the case (R. Stake, 1995, p. 8), and usually studies a small number of participants thoroughly and in depth. Such a study can reveal aspects of complex social phenomena in that particular context. Merriam (1988) argues that the case is often precisely selected so that the researcher has the maximum opportunity to examine that particular context in detail, rather than to understand what is generally true of the many (i.e., in a collective sense). Additionally, it enables the researcher to gain access to participants' experiences from their own

perspectives, that is, as they have lived them, in their own contexts and with all their complexity.

The first particularity of this study is that it investigates university administrators, policymakers and other agencies of relevance to providing funding to higher education institutions in the Libyan context. Second, this research investigates their experiences and perspectives from their own viewpoints in terms of funding investment in such institutions. This might be the first time that any research has aimed to investigate future plans towards funding from the perspectives of the players involved in this domain, and particularly at this time.

5.5.4 Complexity

The case study strategy generates “considerable depth” within the case (Hammersley et al., 2000, p. 3). This consequently provides rich, holistic understanding and in-depth insights into the participants being studied and the contexts where they built and formed their experiences, and perceptions, of higher education funding. Researchers will have the ability to collect a considerable amount of data that will enable them not only to establish systematic correlations between behaviours and experiences but also to investigate potential changes over time. For the present study, the cases yield rich data about the officials’ and policymakers’ experiences in the Libyan context and the factors that have contributed to the formation of their perceptions and views, which will be fully discussed later.

5.5.5 Contextualisation

Through the case study strategy, phenomena can be studied in their natural contexts, which are unique, dynamic and rich in information (Yin, 2003). Each context has particular and direct effects on the construction of its participants’ beliefs, experiences and perceptions. Nevertheless, these effects vary from one person to another because people are individuals. For this study, the context includes the institutions of higher education, mainly universities. It plays a vital role in establishing the relationships that contribute to the formation of the experiences, perspectives, and beliefs of the individuals involved in the study.

5.5.6 Multiple sources of data

In case studies, multiple data sources can be employed such as interviews and observations with questionnaires and documents, for instance. This provides a variety of perspectives on the phenomena under investigation. This is one of the strengths of case study because it “allows the researcher to use a variety of sources, a variety of types of data and a variety of research methods as part of the investigation” (Denscombe, 2010, p. 54). Case study can be conducted by implementing almost any research method, though the most popular are qualitative methods (McNeill & Chapman, 2005). This study uses interviews and documents as sources of data. Such sources help the researcher to gather sufficient data to explore the phenomenon under investigation and understand it more deeply.

5.5.7 Flexible design

In case studies, flexible designs are “neither time dependent nor constrained by method” (H. Simons, 2009, p. 23). They can be conducted over various lengths of time as based on the nature of the case under investigation in order to discover systematic connections among relationships, behaviours, experiences, and to identify relevant changes over time. Thus, interviews and documents are used as sources of data. The former was carried out at different times and stages of data generation, according to the participants’ availabilities. Documents were collected depending on circumstances at various time. The flexibility of case study meant there was no obligation to start with a particular method of data generation and the researcher was hence under no extra pressure to “impose controls or to change circumstances” (Denscombe, 2010, p. 62). Such flexibility enabled the researcher to focus more on the procedures, refine questions and consider alternatives.

5.5.8 Limitations of case study

Although the case study strategy has many positive characteristics and has been used in a range of study areas, it has been criticized on the following basis.

- Case study strategy has been described as “sloppy” and following unsystematic procedures which yields biased views and is characterised by a lack of rigour in general. Yin (2009) claims, however, employing other additional methods can decrease that lack of rigour.

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- Case study does not provide a generalised conclusion. Nevertheless, it can be generalisable to “theoretical propositions and not to populations or universes” (Yin, 2009, p.15). In this sense, case studies are treated like experiments; they can yield analytic generalisations but not statistical generalisations. The goal of case study strategy is not the same as that of scientific experiments, which calculate frequencies in order to make statistical generalisations.
 - Case study is also time-consuming in terms of the massive amount of what can be quite impenetrable data to collate process and analyse. The raw data remaining often exceeds the analysed data in most cases.
 - Subjectivity is considered another major weakness of the case study strategy. However, (2009, p. 163) argues that “subjectivity is not something we can avoid whatever methods we adopt though it is more visible in qualitative inquiry where people, including the researcher, are an inherent part of the case”. The author claims also that research subjectivity can be decreased when the researcher “acknowledge(s) its inherent subjectivity and concentrate(s) on demonstrating how your values, predispositions and feelings impact upon research” (2009, p. 163).

5.6 Types of case studies

In reviewing the related literature, there are several types of case study. Consideration of these different types allows the current study to be placed within the appropriate domain.

5.6.1 Exploratory

Yin (2003) argues that an exploratory case aims to identify propositions and questions that might be explored in future studies. The current study is exploratory since it is intended to “investigate a little-understood phenomenon” (or a context) to “generate hypotheses for further research” (Marshall & Rossman, 1999, p. 33). Studying funding of higher education is an exploration of the roles policymakers, officials, agencies and administrators play in investing such funding, and the different views taken towards management of the funds, and indeed other future plans, in the Libyan context.

5.6.2 Instrumental

This type of case study aims to generate a deeper understanding of wider issues beyond the case actually being investigated (R. Stake, 1995). The case chosen can be a typical case, though unusual cases can often demonstrate issues overlooked in the course of more

typical cases. The current study is instrumental since it aims at gaining useful insights into higher education funding, the views and perspectives of policymakers, agencies and officials in Libyan universities. The reason for the choice of a range of participants is to gain sufficient understanding over a wide range of perspectives. A single case study based on one individual, however, would not by any means have necessarily been adequate to explain the experiences, perceptions, etc., of all the participants in the context of the study. A single case could only have offered an individual's personal account that one could not reasonably claim to be representative of the experiences of the policymakers, officials, administrators and agencies involved in managing the funding of higher education institutions in the Libyan context.

5.6.3 Multiple case

Multiple case study (Yin, 2003) is also known as a set of cases (Robson, 2002). The cases that make the study are considered individually. For this study, there were 25 cases representing officials in universities and governmental agencies. A subsequent study of these cases might help in anticipating possible similarities or differences that might emerge from the individual cases. For the current study, studying multiple cases enable the researcher to generate a variety of views about the policymakers, university agencies, officials and administrators as the major players in managing funds and institutional finance.

Qualitative case studies use a variety of data sources such as observations, interviews, documents and diaries. Multiple data sources offer what Merriam (1988, p. 69) calls "methodological triangulation". Methodological triangulation is a type of triangulation that uses a combination of different methods to investigate the same case in greater depth (Merriam, 1988). Denzin and Lincoln (2011) added that the rationale for this qualitative strategy is that the strength of one approach to data collection compensates for the weakness of others and enriches the rigour, richness, and depth to any research. The methodological triangulation approach is invaluable in achieving the aim of this study. The use of multiple methods can compensate for the potential limitations of one method. Methodological triangulation in this study is achieved by combining interviews with documentation analysis. Similarly, documents were collected after interviewing policymakers, officials, administrators and agencies as the main participants responsible for fund management in higher education institutions in Libya.

5.7 The study type

Kvale and Brinkmann (2009) consider the purpose of the study as a crucial step in framing decisions on which methods to apply at the various levels of the research in order to fulfil the aims of the study. Furthermore, Marshall and Rossman (1999) categorise the purposes of research as being exploratory, explanatory, descriptive and emancipator. The first type aims to “investigate a little-understood phenomenon (or a situation) to gain insight” or to “generate hypotheses for further research” (P.33). Explanatory research is usually concerned with interpreting the causal relationships of a particular phenomenon, whilst concentrating on documenting and portraying a situation accurately underlies descriptive study. Finally, the emancipatory category is concerned with the goal of creating opportunities and engaging in a social action (Marshall & Rossman, 1999).

Based on the classification provided above, this study will attempt to explore the perspectives and experiences of policymakers, government agencies, and university administrators. Gaining a deep understanding of the topic from the participants' points of view can be classified as an exploratory study. In this type of research, the researcher is concerned with gaining sufficient information about the phenomenon under investigation. He or she is also concerned with identifying any significant meanings brought by participants and how these might be related to each other. Marshall and Rossman (1999) assert that exploratory research investigates a context and setting with the aim of generating hypotheses to conduct further research.

Moreover, this study can also be classified as descriptive since the situation, and the associated factors that contribute to the formulation of the phenomenon in the study, would be covered in a detailed account. The descriptive element helps the researcher explain the perceptions and experiences of the officials, policymakers and administrators in the context of this study. According to Marshall and Rossman (1999), the study can be classified under the two categories classified above. It can also be considered as an instrumental case study that is aimed at generating wider issues related to the investigated phenomenon (R. Stake, 1995). Therefore, the present study can be classified as an exploratory, descriptive and instrumental case study, with the boundaries to each being difficult to define; those involved in the management of funding of higher education institutions are of a wide scope. The next section tackles the sample used in this study.

5.8 Sampling

A general feature of enquiry, whether qualitative or quantitative, is to select samples for study. Even if the research contains a small population, a decision still needs to be made concerning its participants. Sampling is required, simply because the researcher will not be able to observe or record all events occurring within the context, and cannot study the entire population target (Ritchie, 2014; Tashakkori & Teddlie, 1998). The purpose of the study determines the type of sampling. Thus, sampling is essentially related to the selection of units (which may be people, organisations, individuals, departments, and other), with direct reference to the research aims (Bryman, 2012). The research questions may provide guidelines as to which categories of people might be involved (Bryman, 2012).

Purposeful sampling is used to ensure that respondents provide information requested for the investigation and that they answer the research questions. The selection criteria used included identifying individuals who: (a) are deemed knowledgeable or experienced in the area; and (b) are representative of the different perspectives associated with this study. Thus, specific individuals and sites have been selected for this research because they could purposefully inform the research problem, answer the research questions, and meet the objectives, which are the central phenomena of the study (Creswell, 2013; Saunders et al., 2012). In this study, the researcher seeks to meet key players in issues of financing the universities so that various levels of the representation and understanding of these issues might be achieved from all reasonable perspectives (Miller & Glassner, 1997).

With regards to the sample size, Cohen, Manion, Morrison, and Bell (2011) maintain that in qualitative research there are no definite rules as to the sample size, which is ultimately informed by its fitness for purpose “there is no clear-cut answer, for the correct sample size depends on the purpose of the study, the nature of the population under scrutiny, the level of accuracy required, and others” (Cohen et al., 2011, p. 144). According to (Cohen et al., 2011; Onwuegbuzie & Collins, 2007), sampling in the research process represents a critical step because it enables the researcher to make quality inferences from the research findings. Furthermore, it is extremely important for the researcher to choose the number of participants, i.e., the sample size and methods of selection, namely, the sample scheme, no matter the type of research (Cohen et al., 2011; Onwuegbuzie & Collins, 2007).

Purposeful or judgment sampling, a type of non-probability sampling, is the most common technique of sampling used in case study research and has emerged as a practical choice for the current study. It is a feature of qualitative research, where the sample tends to be small. In qualitative research, researchers usually aim to explore a phenomenon in some depth, so this might be achieved by purposely choosing the participants. As mentioned by Bryman (2012), purposive sampling is “essentially to do with the selection of units (which may be people, organizations, documents, departments and so on), with direct reference to the research questions being asked” (Bryman, 2012, p. 416). The logic and power of choosing such samples “derive from the emphasis on in-depth understanding” that it provides to the researcher (Patton, 2002, p. 46). The researcher actively selects the most productive sample to answer the research questions based on the typicality or qualities the sample possesses (Tongco, 2007). A purposive sample “yields insights and in depth understanding rather than seeking empirical generalization” (Patton, 2002, p. 230) .

Being qualitative, this research employed a purposive sampling, as informed by the research questions. The research questions aim to understand several issues and policies related to the Libyan higher education funding system. To answer these study questions, appropriate officials, who have in-depth knowledge about such issues, were interviewed. Hence, the interviewees in this study, from which a sample was purposively drawn, were significant policymakers and relevant agencies such as public universities, Ministries and legislation makers, where higher education policy was enacted and made. This means that policy-makers from the levels of the institutional structures were purposefully selected.

In this study, the sample was purposive, consisting of three groups of participants and directly involving 25 individuals responsible for financial allocation to public universities. The first group included two members of the higher education committee (the Director of the Higher Education Committee and a member of the Libyan Parliament). Such a committee comprises three members, who are in charge of the design and formulation of policies relating to higher education sectors, which includes issues of universities funding.

The second group was composed of eight participants representing officials at government agencies including [those in charge in] the ministries of Higher Education, Finances, and Planning. The subgroup of the Ministry of Higher Education consists of

deputy ministers for financial and administrative affairs and directors for planning management. The Ministry of Finance group is responsible for recurrent expenditure of universities. Thus, the participants within this ministry were members of the financial committee, the Director of Budget Management, and Director of Following Management, and the consultant minister for university affairs, who negotiates the government allocations to universities. The third subgroup is the Ministry of Planning, which is concerned with the developmental expenditure of universities. This group is comprised of members of the financial committee and the Director of Budget Management, as well as the consultant to the Minister of Planning. In selecting the participants from the Ministries of Finance and Planning, the researcher based such decisions on the financial law of the state and the budget law; where such laws identify the tasks of each management team within the ministries. Thus, the researcher found the officials most appropriate to be interviewed in order to maximise the quality of the information retrieved.

The third group consisted of the beneficiaries of government funding, namely public universities. It included fifteen participants from eleven of thirteen public universities. The interviews were with the presidents of universities or with a deputy president for the financial and administrative affairs according to their availability. Sometimes a president of a certain university authorises his deputy for financial affairs to deal with authorities in charge of government funding. It was dealing with this group through reliance on the law of universities that identify the officials involved in resource allocation issues at the universities. It must be mentioned that the researcher was unable to conduct interviews with two universities' officials due to the civil war and the poor security situation in the regions where those universities are located.

The first type of interview is intended to obtain information about the two components of the research: the existing model of financial resource allocation for universities and the possible future strategies relevant to university funding. To obtain sufficient information, university officers or officials from the funding authorities were interviewed. Government officials could offer information and ideas about government policies, priorities, current practice, widening participation and the country's ability to fund HE *vis-à-vis* its economic development.

5.9 The setting

A natural research setting is usually where “there is a high probability that a rich mix of processes, people, programs, interactions, and structures of interest are present”; the researcher is likely to establish a trusting rapport with the participants in the study, and “data quality and credibility of the study are reasonably assured” (Marshall & Rossman, 1999, p. 69). Burgess (1984) also maintains that the researcher should choose a site with the optimal conditions for achieving the research aims, such as willingness of the participants to cooperate, ease of accessing to potential participants and the logistics required to complete the research. The researcher tried to find these criteria in this setting.

Thus, the research was based in eleven universities (U1-U11), the legislative authority, and the government agencies in charge (the finance, planning, and higher education ministries). Accessibility and convenience were behind the choice of place. Furthermore, the researcher is familiar with the context because he worked in the Ministry of Finance, and still has good relationships with some of the officials and administrators in charge of the public entities funding. Therefore, this place helped the researcher a great deal in contacting the necessary people and having the resources necessary to conduct the research

5.10 Methods of data collection

This section focused on the main methods used to collect data within this qualitative research. It presented a thorough explanation of the methods employed in this research: semi-structured interviews and documentation analysis. Moreover, it provided the rationale for applying these methods in this research. The choice of the approach by which the research is underpinned helps the researcher to employ the most appropriate data collection method(s) (Pinsonneault & Kraemer, 1993).

With respect to the starting phase of the data collection, some scholars (Brewerton & Millward, 2001; Waltz, Strickland, & Lenz, 2010) argue that a researcher should know the purpose of the data in advance in terms of describing, screening or predicting. The data collection methods can be applied to qualitative, quantitative or mixed methods approaches. Employing a specific method for data collection determines the classification of a study to a significant extent. The distinction is based on flexibility and freedom of approach and the structure for collecting data, restrictions imposed on the philosophy

underpinning the enquiry, and liberty and depth available to the researcher in for obtaining answers to research questions (Kumar & Metzler, 2014).

The interviews and document analysis have been adapted as methods for collecting data. Triangulation of different methods of data collection explains, or maps out more fully, the complexity and richness of human behavior.

Data collection, however, involves developing means for recording information both manually and digitally, storing any data collected, and anticipating any ethical issues that may arise (Collis & Hussey, 2009). Semi-structured interviews and document analysis are used as the principal methods for collecting data in this study. This requires listening to people's perceptions and experiences. The next section discusses interview as a method of data collection.

5.10.1 Interviews

An interview is considered "more than just a conversation" (Denscombe, 2007, p. 173), and is aimed at gaining a particular kind of information about the phenomenon or context investigated, which is not usually associated with casual conversation. Kumar and Metzler (2014) define an interview as "a verbal interchange, often face to face, though the telephone may be used, in which an interviewer tries to elicit information, beliefs or opinions from another" (p.117). In the same vein, Collis and Hussey (2009, p. 144) deem interview as "a method for collecting primary data in which a sample of interviewees are asked questions to find out what they think, do or feel". Saunders et al. (2012) stated that using qualitative research interviews enables the researcher to gather a wealth of detailed information.

Furthermore, interviews can be understood as "in-depth qualitative interviewing" (Rubin & Rubin, 2012, p. 29) and as the main data-collecting device with regard to social studies. According to (Kvale & Brinkmann, 2009) "knowledge is produced socially in the interaction of interviewer and interviewee" (Kvale & Brinkmann, 2009, p. 82) in a qualitative research interview. Initially, choosing interviews as the main technique of data collection in the present research is based on (Kvale & Brinkmann, 2009) 's argument that:

“...interviews are particularly well-suited for studying people's understanding of the meanings in their lived world, describing their experiences and self-

understanding, and clarifying an elaborating their own perspectives on their lived world.” (Kvale & Brinkmann, 2009, p. 116).

Interviews by nature provide a higher response than other approaches such as questionnaires; this is attributed to the fact that participants are more involved and, hence, motivated to respond, allowing for more, and richer, data to be obtained. They can be straightforward individual interviews or conducted within a focus group. They are also used in conjunction with other tools for generating data to achieve triangulation. They can be used in quantitative, qualitative, and ethnographic strategies. They can be used to gain deeper insight into the views and opinions of individuals or groups to obtain information about practice and technical know-how, to collect life narratives and oral histories, and to comprehend organisation and movement ideologies. Interviews yield a great deal of useful information related to any of “facts (e.g., biographical information), people’s beliefs and perspectives about the facts, feelings, motives, past and present behaviours, standards of behaviour (i.e., what people *think* should be done in certain situations), and conscious reasons for actions or feeling (e.g., why people think that engaging in a particular behaviour is desirable or undesirable)” (Leedy & Ormrod, 2014, p. 155).

5.10.2 Types of interview

There are various types of interview (Fontana & Frey, 2005; Kvale & Brinkmann, 2009). Regarding the degree of standardisation, interviews are categorised as structured (fully structured), semi-structured and unstructured. In addition, employing any of these types represents the reflection of their purpose. For this study, structured interview was not considered an appropriate technique for exploring the perceptions of policymakers regarding government funding for higher education institutions. The rigidity of the questions and the limited involvement of the researcher represent hurdles that prevent the clarification or rewording of the questions or the use of probes. In addition, interviewees might not understand the questions or deviate from the topic or the expected answers. There is no means by which to deeply investigate their perceptions. Also, unstructured interviews were not employed because there were certain themes that needed to be covered at particular stages of the data generation processes which could not be provided

for by this method. For the current study, semi-structured interviews were the most appropriate for reasons that will be discussed later.

5.10.3 Strength of interview

Using face-to-face interviews in this research offered the researcher the chance to modify the interview questions, and reformulate them to follow up interesting responses and investigate underlying motives. A major advantage of semi-structured interviews is their adaptability in terms of assisting researchers to ask to follow-up questions in order to obtain more information about a particular subject, or to clarify vague statements (Flick, 2014). Interviews also offer non-verbal cues (body language) that provide more understanding in conjunction with the vocal response; they allow for the collection of particularly rich data compared with other methods of data collection.

Thus, in general, interviews are more appropriate than questionnaires for this study because of dealing with more sensitive and open-ended questions (Cohen et al., 2007; Robson, 2002). Compared to other methods such as surveys, the interviews enabled the researcher to obtain information that could not be obtained through the survey technique, which might present extensive data concerning a particular issue but lacking the depth of understanding provided by interviews (Tierney & Dilley, 2002). Besides, due to the necessity of dealing directly with the participants, interviews are helpful in building rapport and trust with respondents (Gall, Gall, & Borg, 2003). In terms of the interview questions, Scott and Garner (2013) argue that in semi-structured interviews, the researcher relies on an interview guide, a set of themes related to the topic of the research are prepared so as to be able to direct questions to the respondent. The structure and wording of these questions were are key part of what the interviewer wanted to learn from the interviewees; that is, to understand their views and experiences about their context (Kvale & Brinkmann, 2009).

5.10.4 Rationale for using semi-structured interviews

Through semi-structured interviews, the researcher was able to identify the interview scope through tools such as themes, the interview guide, the use of probes, follow-up questions, and elaboration and clarification. Within interviews, “questions and their order are not fixed: they can be adopted to the flow of the interview conversation” (Flick, 2014, p. 199). Therefore, the researcher was able to define the participants’ responses to the required degree, as well as investigate tangents that emerged during the interviews (Morse

& Field, 1998). Semi-structured interviews also allow for reconciliation between interviewees and interviewer as well as providing the chance to express their perspectives freely, and this allows the interviewer to uncover the complexity of such perspectives (Hammersley,2008). Thus, such methods allow the researcher to investigate and understand the research aspects, and clear up any misunderstandings. Furthermore, it enables the interviewer to ensure the limits of an interviewee's knowledge have been reached (Cohen et al., 2011).

Furthermore, semi-structured interviews allow the researcher to clarify and refine questions that may be ambiguous to the interviewees and to overcome any ambiguities that might arise during the interviews, as discussed by (Morse & Field, 1998). Likewise, the participants have the opportunity to seek further clarification and explanation. This also allows for the discovery of interesting information that can provide fruitful insights into the study topic. Moreover, guided questions allow the researcher to give a fresh commentary and assist in the flow of the interview. Thus, all such justifications implied the choice of semi-structured interviews as an adequate technique for collecting the data, and for meeting the purposes of this research.

5.10.5 Limitations of interview

In spite of all the advantages of interviews, they still have some inherent drawbacks. Nevertheless, Greenfield (2002) highlights that there are weaknesses associated with actually conducting interviews; such limitations are, firstly, related to the interview procedures as they “are not always explicit” and they “depend on researcher's opportunity or characteristics”; secondly, an interview result depends on the honesty of the interviewee; and, thirdly, it is “subject to observation” (Greenfield, 2002, p. 170). Moreover, (Marshall & Rossman, 1999) added that interviews may cost more than other data collection methods in terms of expense and time to be completed. It is time-consuming to achieve the stages required for interviews: preparation, actual interviewing, transcription, and translation and analysis (Mason, 2002 ; Robson, 2002). Furthermore, the issue of bias represent *the* major challenge for qualitative studies employing interviews as data collection instruments (Chenail, 2011). The sources of bias might be either the characteristics of the respondent, the features of the interviewer, and the content of the interview questions (Chenail, 2011).

To overcome these problems, the researcher exerted all possible effort to follow clear and accurate procedures, starting with preparing the interviews and at all times during the interviews. Additionally, the researcher sought to provide appropriate conditions during the interview in order to encourage the participants to feel comfortable when they responded. In addition, it is worth mentioning that the participants in this research were enthusiastic regarding the subject under study. With regards to the bias issue, which is one of the challenges associated the interview, various scholars (Chenail, 2011; Rossman & Rallis, 2016; R. Stake, 1995) argue that to test interview quality and to overcome such problems, a pilot study stage is appropriate, particularly with regards to potential bias, through which the researcher can ensure that the planned procedures perform in accordance with the researcher's vision.

In practice, before completing the guide to the interview, some exploratory and pilot interviews were conducted. Such interviews have provided information in addition to that obtained from the literature, which served as a basis for creating a final interview protocol. This included five main groups, each of which corresponded to a particular research question. The first group included questions relating to the current model of financial resource allocation. The second group included factors influencing resource allocation. The third group seeks to identify the challenges facing universities regarding financial issues. The future strategies for improving the current funding system were contained in the fourth group. The interview protocol was concluded by several questions regarding recommends and suggestions from interviewees.

5.11 Document analysis

The words “documents” and “records” refer to “any written or recorded statement prepared by or for an individual organization for the purpose of attesting to an event or providing an accounting” (Lincoln & Guba, 1985, p. 277) . Documents are characterised by being “stable” and “can be reviewed repeatedly” (Yin, 2009, p. 102). They provide sufficient support to interpret interviews and enhance the research with further evidence. Therefore, (Yin, 2009, p. 102) observes that “because of their overall value, documents play an explicit role in any data collection in doing case studies”. (p.102)

The main motive for using documents as a source of data is the simplicity and speed of access to this kind of data through libraries or websites whilst only incurring low costs (Oates, 2006). However, the drawback of using documents as a source of data is the

question of the credibility of their origins (Johnson and Turner, 2003), and they could also potentially give an inaccurate perspective as to the situation under investigation (Oates, 2006).

Relevant policy documents constituted the second data source for this study, which included policy documents and reports on government funding to universities. The documents were selective, which would help to answer the questions of this study; also, such documents were provided for triangulation of data generated from interviews. The researcher has collected government policy documents: plans, laws, reports on funding, and documents from several public universities and government agencies according to their availability.

Document analysis is useful in this study because although experienced interviewees were involved, some information was worth sourcing from documents for purposes of accuracy and cross-checking due to the time lag between the occurrence of described events and the dates of the interviews. Furthermore, reliance on interviews alone would preclude the documented reality of each of the research settings. Documents are particularly beneficial for this study because of their availability at low cost and their richness of information without being reactive to the presence of the researcher or circumstances. This study used documents and records as further sources of data to answer some of the research questions and sub-questions. At this point, attention is turned to document analysis as a source of data.

The ease with which documents can be read and used as sources of data is advantageous to the researcher (Mason, 2002). Mason (2002) goes further, adding that existing documents may allow the researcher to generate further data such as tables, graphs and charts through the research process. In this study, documents such as the universities' audited financial statements and institutions' annual reports were scrutinised in order to generate comparative tables. However, the documents also served as primary sources of data to a limited extent. In certain contexts, and in some cases, access to documents might be difficult to obtain. In this study, the documents served a dual purpose in that they are used to verify some of the responses gained from interviewees (cross-checking) and partly to answer some of the sub-questions as singular sources of data.

5.12 The researcher's diary

In this study, the researcher depended on his diary “on a daily basis or as needed, records a variety of information about self and method” (Lincoln & Guba, 1985, p. 327). The diary represents a source of information about the researcher as a human instrument. It also provides data about the “methodological decision made and the reasons for making them” (Lincoln & Guba, 1985, p. 327). Such a diary may include the daily agenda of the study, a personal diary of what has happened and records of any methodological decisions and their rationales (Lincoln & Guba, 1985). In relation to this study, the researcher kept his own diary to record what happened, and any potential methodological decisions that might be made. This helped him to review every step made and what might be needed. It contained a detailed chronological record of the events and the participants interviewed. Keeping a diary helped to “make my experiences, opinions, thoughts, and feelings visible and an acknowledged part of the research design, data generation, analysis, and interpretation process” (Ortlipp, 2008, p. 703).

5.13 The pilot study

A pilot study, or pre-test, gathers preliminary information intended to fit the proposed research instrument (Merriam & Tisdell, 2016). It allows necessary adjustments to the research instrument in advance of a full-scale inquiry, as well as verifying feasibility and improving quality and efficiency (Jairath, Hogerney, & Parsons, 2000). Before conducting the study, it was necessary for the researcher to check the methods of collecting data, identify any flaws in the research design, and to make any required refinements. Likewise, the pilot study is very important in terms of allowing the researcher to obtain experience before conducting the actual study and help avoid any potential challenges that might occur (Ercikan & Roth, 2009). Similarly Cohen et al. (2011) suggested that “it may be better for the teacher to develop a pilot study and uncover some of the problems in advance of the research proper” (P.83). Piloting familiarises the researcher with the realities of fieldwork before proceeding with any actual data collection (Beebe, 2007; Yujin Kim, 2011). Regarding the benefits of pilot studies, Yin (2015, p. 39) states that:

“Pilot studies help to test and refine one or more aspects of a final study, for example, its design, fieldwork procedures, data collection instruments or

analysis plans. In this sense, the pilot study provides another opportunity to practice. The information from a pilot study can range from logistical topics (e.g. learning about the field time needed to cover certain procedures) to more substantive ones (e.g. refining a study's research questions)".

In other words, a pilot study can reveal any shortcomings in design or test procedures proposed in earlier studies so that these issues can be addressed before proceeding with a large-scale investigation. A good research strategy requires cautious planning, which represents a particular benefit of conducting a pilot study (Bryman, 2012). In this research, the pilot study investigated and explored several elements relating to public universities and government agencies involved in university funding through the use of interviews which assisted in wording and refining the questions.

A crucial factor that was considered before starting this research was to choose a sample whose members could respond to the interview questions and who had experience and were involved in university funding issues. For this study, several procedures were undertaken before carrying out the actual interviews.

A draft of the interview guidelines was discussed several times with the researcher's supervisor and several PhD students in order to improve the interview questions' validity by taking their perspectives into consideration before starting the real interviews. After having an in-depth discussion about the final draft with the researcher's main supervisor, the form of the pilot study was set and adopted. After that, the interview questions were translated into Arabic, which was attached to an English version, and which was then provided to an expert interpreter for any feedback. The pilot study was conducted with five officials (face-to-face) in their offices in the first week of April 2015. The interviewees were two individuals working at the Ministries of Finance and planning, respectively. The remaining three interviewees were senior management members at Universities U2, U7, and U10.

The researcher benefited from the pilot stage on several levels. For instance, on how one can conduct a research study, gain experience in dealing with fieldwork especially in terms of having access to the interviewees, obtaining their permission to carry out interviews with them, and responding to the unexpected events that could arise during the

field process. It also included additional prompt questions to focus on and guide the interviewing process, and subsequently modify the questioning strategies for the main study. From the pilot study, the researcher understood that fruitful interviews would last anywhere from 40 minutes to 1.5 hour because after that time the participants become impatient or bored and usually would not be providing any new information. The pilot stage also assisted the researcher in testing the quality of the recordings and sorting out any technical problems that might occur during the real interviews with the audio recorder used. A digital recorder was used during the main study that enabled the transfer of audio files to the computer both easily and directly. The researcher also realised the difficulties associated with translation and transcription which necessitated starting them early.

5.13.1 Ethical considerations

The researcher followed British Educational Research Association (BERA) guidelines (2011) whilst conducting this research in terms of dealing with the participants. All the participants targeted were informed about the nature of the study and its aims before starting the data collection stage. Participants were informed from the beginning of their right to withdraw from the interview at any time, as well ensuring they were aware that their identities would be anonymised both concerning secure storage of any data relating to them and within the writing of this thesis.

Priority in this study was given to issues of acceptance and access, informed consent, and the participants' anonymity and confidentiality, as based on BERA guidelines (2011). Gaining participants' acceptance and protecting them from any possible emotional or mental harm represent the principal concerns of the researcher (Kvale & Brinkmann, 2009).

5.13.2 Access and Acceptance

Access and acceptance is an important aspect that needs to be tackled in the early phases of the research. It shows that the researcher can have access to the study site and is being accepted by the agencies targeted in terms of the field work required (Cohen et al., 2011) and will be able to gain sufficient access to collect information for the research. In this regard, the researcher usually needs official permission from the authorities concerned. For this study, an official letter was obtained from the University of Huddersfield to be handed to the Libyan Embassy in London, and which was then forward to the Higher

Education in Tripoli. They in turn issued an authorisation letter to present to the authority in charge of the institutions where the research was being conducted.

5.13.3 Informed consent

Informed consent reveals that participants agree to participate in the study after informing them about the nature and the purpose of the research (Christians, 2008 ; Fontana & Frey, 2005). The researcher is required to explain the research processes thoroughly, the nature of the data he or she intends to collect, and their explicit aims. For this study, and before collecting the research data, the researcher gained the participants' personal agreement as to their participation in the study. Their verbal consent was first noted when they agreed to participate in the research. They were also informed that they had complete freedom to withdraw from the interview at any time. They were also informed that they could ask for clarification at any time.

5.13.4 Confidentiality

This consideration deals with protecting participants' privacy by promising confidentiality at the beginning of the research to "gain trust and encourages participants to speak openly and honestly" (H. Simons, 2009, p. 106). This involves hiding their identities and protecting their privacy and anonymity (Patton, 2002). The researcher gave the assurance as to their anonymity and that any findings reported would not allow for their identification. Their names will also remain anonymous to officials in their institutions. The researcher informed the participants that the data will only be used for the purposes of the research and would not affect their status in any way. They were assured that the study would not aim to judge them in any sense. Recording was stopped on their request, and issues discussed separately were not included in the notes or the interview transcription. The researcher also respected their views when they referred to the current situation within the country. All the recorded materials and notes were kept in files for each participant in such a way as to preserve their anonymity.

5.13.5 Protection from harm

Protecting participants from any form of harm, including physical or emotional, is another important issue (Babbie, 1998 ; Fontana & Frey, 2005). The researcher in this study considered all the possible consequences of this study on the participants. For instance, a reference to the participants' views in front of other officials, administrators or policymakers was to be avoided. Making appointments was based on the mutual

agreement of the participants and the researcher. He gave them his contact details in order to provide any possible help when requested. Moreover, the participants were assured that the information provided would only be used for research purposes, and no elements of the data collected would be handed to any of the officials in charge of any of the departments or agencies involved in funding management or planning for further investment in this area for the long term.

5.14 Data analysis

5.14.1 Introduction

The section is divided into two main parts. The first part addresses the data analysis of the qualitative research as mentioned in the literature, while the second part tackles a particular method adopted for the data analysis in this study, which was that of thematic analysis. This section aims to present a comprehensive overview as to how the data collected was analysed, and to justify the reasons underlying the adoption of the chosen approach.

Data analysis is “the process of bringing order, structure, and interpretation to the mass of collected data” for a study (Marshall & Rossman, 1999, p. 150). This stage enables the researcher to immerse himself in the data, with the intention that this will lead to its understanding and consequent interpretation (Hennink et al., 2011). In the same context, Yin (2014, p. 132) described data analysis as “examining, categorising, tabulating, testing or otherwise recombining evidence, to produce empirically based findings” (p.132). It requires a series of techniques that “involves moving back and forth between concrete bits of data and abstract concepts, between inductive and deductive reasoning, between description and interpretation” (Merriam, 1988, p. 147). This is a non-linear stage because the researcher has to go back and forth to the original data and the coding, searching for new codes, and testing or refining existing ones (Merriam, 1988). The researcher continually moves back and forth between the stages of the research in an iterative manner.

5.14.2 Qualitative data analysis

(Creswell, 2014) maintains that qualitative data analysis:

“generally consists of preparing and organizing the data (i.e., text data as in transcripts or image data as photography) for analysis, then reducing the data into themes through a process of coding and condensing the code and finally represent the data in figures, tables or discussions” (p.148).

Concerning the procedures of qualitative data analysis, there are no particular stages, but researchers should follow the appropriate path to analyse the data in order to receive conclusions (Cohen et al., 2011). The writers added that there are no specific correct stages that can be followed in order to analyse qualitative data, but rather insisted that the data analysis process should merely be to establish ‘fitness for purposes’ (p. 537).

Yin (2015) explained that data analysis aims to arrange, organise, categorise, examine, and classify and code the data into a thematic structure. This enables the researcher to achieve an understanding of the information, and to analyse and consequently interpret them. Data analysis is distinguished by “merging of analysis and interpretation and often by the merging of data collection with data analysis.” (Cohen et al., 2011, p. 537). This means that data analysis is not a separate stage; rather, it can include interpretation respectively.

5.14.3 Thematic analysis

Thematic analysis is commonly used for qualitative analysis. It depends on the analysis of classifications and present themes that are relevant to the data collected. Also, such an approach enables the detailed clarification of any data obtained and allows one to deal with multiple subjects through data interpretation (Boyatzis, 1998). At this early stage of data analysis, the researcher aimed to identify themes and emerging patterns, and on allocating meanings or interpreting these patterns according to the research questions. Therefore, thematic analysis is employed as the analytic procedure in order to interpret the data of this study. Based on Braun and Clarke (2006, p. 79), thematic analysis is:

“a method for identifying, analysing, and reporting patterns (themes) within the data. It minimally organizes and describes your data set in (rich) detail.

However, frequently, it goes further than this and interprets various aspects of the research topic”.

Furthermore, thematic analysis could be considered as the process “for encoding qualitative information” (Boyatzis, 1998, p. 4). Thus, a theme is “a pattern found in the information that at minimum describes and organizes the possible observations and at maximum interprets aspects of the phenomenon” (P. 4).

For this research, thematic analysis is a more appropriate method for data analysis. The rationale behind using such a technique is justified below. Applying thematic analysis enables the researcher to detect and identify, for example, variables or factors that influence the issues elicited and generated from the interviewees. “Thematic analysis provides a flexible and useful research tool, which can potentially provide a rich and detailed, yet complex, account of data” (Braun & Clarke, 2006, p. 5). This in turns facilitates greater understanding and, consequently, interpretation.

One of the research aims is the attempt to determine the factors that affect the allocation of financial resources among universities in Libya. The interpretations of officials, therefore, are significant concerning the presentation of the explanations for their responses, actions and thoughts; sometimes, this is in line with features of thematic analysis (Creswell, 2009; Hatch, 2002). This will add intricacy and accuracy to the research’s meaning. Qualitative research requires an understanding of the data collected and any of its diverse aspects. Thematic analysis also provides for greater comprehension than other methods in terms of understanding the potential of any issue related to the research (Marks & Yardley, 2004). Moreover, Namey, Guest, Thairu, and Johnson (2008, p. 138) provide further explanation concerning thematic analysis, stating:

“Thematic moves beyond counting explicit words or phrases and focuses on identifying and describing both implicit and explicit ideas. Codes developed for ideas or themes are then applied or linked to raw data as summary markers for later analysis, which may include comparing the relative frequencies of themes or topics within a data set, looking for code co-occurrence or graphically displaying code relationships.”

In addition to the above advantages, such an approach is simple to use, especially by researchers who are unfamiliar with such research approaches. In addition, it has resilience within any theoretical framework, which means thematic analysis has the ability to link with any theory, unlike some other analysis approaches which are closely tied to particular theories (V. Braun & Clarke, 2006; C. D. Carpenter & Suto, 2008).

These features make thematic analysis appropriate to the present research. This assists in achieving one of the research’s objectives, namely gaining an in-depth understanding of participants' perspectives through the thorough interpretation of the collected data. This will enable the researcher to compare diverse data, which sometimes overlap and conflict. Thus, this makes thematic analysis more appropriate to providing further interpretation of various aspects of the research topic (Boyatzis, 1998).

For the data analysis process in this study, the guidelines set by Braun & Clarke (2006, p. 87) are followed according to the six phases of a thematic analysis procedure, as presented in the table below. The researcher worked on the first four phases interchangeably, going back and forth with reference to the research questions. This helped to select appropriate themes and then identify appropriate codes. The next section presents the phases by which the thematic analysis was carried out.

Table 5-1: Phases of Thematic Analysis

<p>1-Familiarizing yourself with your data</p>	<ul style="list-style-type: none"> • Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas.
<p>2-Generating initial codes</p>	<ul style="list-style-type: none"> • Coding interesting features of the data in a systemic fashion across the entire dataset, collating data relevant to each code.
<p>3-Searching for themes</p>	<ul style="list-style-type: none"> • Collating codes into potential themes, gathering all data relevant to each potential theme.

4-Reviewing themes	<ul style="list-style-type: none"> • Verifying the themes work in relation to the coded extracts (level 1) and the entire data set (level 2), generating a thematic ‘map’ of the analysis.
5-Defining and naming themes	<ul style="list-style-type: none"> • Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme.
6-Producing the report	<ul style="list-style-type: none"> • The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating the analysis back to the research question and the literature, and producing a scholarly report of the analysis.

Source: (Braun & Clarke, 2006, p. 87)

5.14.4 Familiarising yourself with the data

Data analysis for the current research began by listening to the interviews, transcribing, and translating them into English. This process started directly after carrying out the first interview with the officers or officials of funding authorities’ legislators or planners. From the beginning, the researcher decided to transcribe all interviews recorders rather than depending on writing summaries. During the early of data analysis stage, the concentration was on the process of several aspects such as translation, interpretation, and gaining the accurate meaning of the interviewees’ words. Translating all interviews himself assisted the researcher in obtaining a thorough grasp of the data. Although all interviewees were spoken in formal Arabic during the interviews (without colloquialism); translating the interviews into English was not without its difficulties, both on the theoretical and practical sides. On the theoretical side, the researcher decided to apply ‘literal’ or ‘free’ translation. “A literal translation (i.e., translating word-by-word) could perhaps be seen as doing more justice to what participants have actually said and “make one’s readers understand the foreign mentality better” (Honig, 1997, p. 17). However, Birbili (2000) argues that using literal translation may hinder understanding and the readability of the text. For the purposes of this study, free translation was applied to achieve the aim of conveying the essence of the interviewees’ views in a clear and easily

readable manner. Translation word-by-word, or literal translation, was not employed. Instead, the Arabic e was translated into the appropriate meaning in English in order to achieve the equivalent contextual meaning insofar as was possible. Sometimes, some ideas, concepts and expressions could not be translated exactly into English language because the exact meaning or equivalence does not exist. Therefore, the researcher applied what is known as ‘transliteration’, which is “a process of replacing or complementing the words or meanings of one language with meanings of another” because “the exact equivalence or exact meaning might not exist” (Regmi, Naidoo, & Pilkington, 2010, p. 18).

The translation was reviewed more than once by specialists in the English Language and translation to be sure the most accurate meaning had been achieved, and highlighted some sections as important. It was also reviewed by peers, namely PhD students and experienced researchers, to check the veracity and the appropriateness of the translation.

Translating the interviews was time consuming, but this allowed the researcher to become more immersed in the data, as proposed by (Hennink et al., 2011). Listening, reading and re-reading the transcripts repeatedly familiarised the researcher with the data. Enabling the researcher to write general notes and comments about his initial thoughts and emerging ideas from the data on the margins was another significant outcome of this stage. All these strategies assisted in the subsequent selection and refinement of themes, codes and sub-codes.

5.14.5 Generating initial codes

Boyatzis (1998, p. 63) observes that codes refer to “the most basic segment, or element, of the raw data or information that can be assessed in a meaningful way regarding the phenomenon”. They usually include parts of words, sentences, phrases, paragraphs, whether unconnected or connected to a specific setting (Boyatzis, 1998; Miles & Huberman, 1994). Assigning a code to a part of the data indicates this part should be in relation to the phenomenon under investigation.

According to (Denscombe, 2007), a constant comparison involves “comparing and contrasting new codes, categories and concepts as they emerge-constantly seeking to check out against existing versions” (P. 99). Thus, in this way, the researcher never loses sight of the differences and similarities in the codes, combining existing codes into specific categories or adding new codes until all the data can be related back to the

research questions. In this respect, (Creswell, 2013, p. 148) identifies the main steps to the coding process; this requires reading and re-reading the data and the codes can be found as follows:

“central steps in coding data (reducing the data into meaningful segments and assigning names for the segments), combining the codes into broader categories or themes, and displaying and making comparisons in the data graphs, tables, and charts. These are the core elements of qualitative data analysis”.

Then the ‘unit of analysis’ selected contains a particular idea relevant to the questions of the research (Elo et al., 2014). A qualitative researcher usually includes distinctive and meaningful pieces that contain an issue of great interest (Elo et al., 2014). Therefore, a code can be a word, a phrase, a sentence or several sentences, or a paragraph. Then, codes that carry the same idea are combined, and the codes are reduced to make them more comprehensive. All the codes are highlighted. At this stage, codes were written in the margins, and were later transferred to categories for coding tables.

Although coding was time consuming, the immersion in the data assisted the researcher in understanding and assigning the themes, codes and sub-codes. This made going to the interviews and the segments used in the analysis easy to access.

5.14.6 Searching for themes

This stage includes reading and re-reading the codes already generated. This helped the researcher to identify significant patterns or themes, rather than codes. Thus, searching for themes:

“involves sorting the different codes into potential themes, and collating all the relevant coded extracts within the identified themes. Essentially, you are starting to analyse your codes and consider how different codes may combine to form an overarching theme” (Braun & Clarke, 2006, p. 89).

At this stage, the researcher thought to find possible relationships among the various codes, sub-codes, and themes, and organising and re-arranging the coded chunks based on the understanding of the theoretical framework of this research.

Grouping of the relevant codes assisted the researcher in appreciating the broader sense of the data collected. At the last step of this stage, the researcher had “a collection of candidate themes, and sub-themes, and all extracts of data that have been coded in relation to them” (Braun & Clarke, 2006, p. 90). Data analysis started with one major theme that the researcher was interested in exploring.

5.14.7 Reviewing themes

The next stage in thematic analysis process was that of refining and evaluating the emergent codes and exploring them through the data. According to (V. Braun & Clarke, 2006, p. 91), during the refining stage process, two main principles have to be taken into consideration. First, the researcher acknowledges that “data within themes should cohere together meaningfully, while there should be clear and identifiable distinctions between themes”. At this stage, two levels, as identified by Braun & Clarke (2006, pp. 91-92), were followed. The coded data under each theme were reviewed to ensure their coherence, and to further ensure that they formed a meaningful unit in analysis, excluding some and adding others. After that, the researcher went back to the entire dataset to make sure the chosen themes captured the contours of the data.

5.14.8 Defining and naming themes

During this stage of the analysis, the aim is to “define and further refine the themes you will represent for your analysis, and analyse the data within them” (Braun & Clarke, 2006, p. 92). The researcher re-read, organised and reorganised the coded data and their collated illustrative parts into a consistent and coherent ‘story’, identifying the significance of the analysis parts in terms of the aims of the study. To classify the themes, Braun & Clarke advise that they should be “concise, punchy, and immediately give the reader a sense of what the theme is about” (Braun & Clarke, 2006, p. 93).

5.15 Trustworthiness of the study

Guba and Lincoln (2005, p. 197) consider trustworthiness as the “goodness or quality criteria” of constructivism. Trustworthiness refers to issues of “how truth will be determined, how it will be communicated ... and how error will be detected and corrected”

(Erlandson, 1993, p. 29). Likewise, Lincoln & Guba (1985, p. 290) claim that trustworthiness is simply related to:

“how can an inquirer persuade his or her audiences (including self) that the findings of an inquiry are worth paying attention to, worth taking account of? What arguments can be, what criteria invoked, what questions asked, that would be persuasive on this mounted issue?”

Denzin and Lincoln (2011, p. 13) have been more specific in their approach to tackling the quality criteria, considering that: “credibility, transferability, dependability and confirmability replace the usual positivist criteria of internal and external validity, reliability and objectivity”. Below is a table of the criteria and their corresponding naturalistic inquiry.

Table 5-2 Criteria for judging the quality of quantitative versus qualitative research

Conventional term	Naturalistic terms
Internal validity	Credibility
External validity	Transferability
Reliability	Dependability
Objectivity	Confirmability

Introducing rigorous procedures into each phase of the inquiry will “improve the trustworthiness” (Gobo, 2008, p. 363). To decrease threats to trustworthiness, a qualitative researcher has to employ a variety of strategies that will assist him or her to “describe research findings in a way that authentically represents the meanings as described by the participants” (Lietz, Langer, & Furman, 2006, p. 444). At the same time, qualitative researchers need to document all the procedures and steps they go through when conducting their case studies (Yin, 2014). To address each of these criteria, and thereby to increase the trustworthiness of the study, four common criteria were applied: credibility, transferability, dependability, and confirmability (Erlandson, 1993; Lincoln

& Guba, 1985). The researcher took these trustworthiness strategies into consideration at the various stages of this study.

5.15.1 Credibility

Credibility refers to a researcher's ability to demonstrate that the research report accurately represents the participants' views (Erlandson, 1993). Credibility needs to be established with the groups and individuals as sources of research data. In order to do this, Lincoln and Guba (1985) have proposed a number of techniques including prolonged engagement, persistent observation, triangulation, peer debriefing, referential adequacy, and member checks to help researchers achieve this goal. The next section discusses some of these techniques as relevant to this research.

5.15.2 Transferability

Lincoln and Guba (1985) argued that transferability is concerned with the extent to which the findings of a study may be generalisable to other, similar contexts. In this case, a researcher provides a detailed description and sufficient information to determine the applicability of the findings to another situation. It is this generalisability that tends to be associated with quantitative research. Transferability is "a process in which the reader of the research uses information about the particular instance that has been studied to arrive at a judgement about how far it would apply to other comparable instances" (Denscombe, 2010, p. 301). In order to address transferability, a researcher "attempts to describe in great details the interrelationships and intricacies of the context being studied" (Erlandson, 1993, p. 32). To enhance transferability, Erlandson recommend applying the following techniques: thick description, purposive sampling and maintaining a reflexive journal (Erlandson, 1993).

5.15.3 Thick description

A researcher collects and reports sufficiently detailed descriptions of data to allow judgment to be made about transferability (Erlandson, 1993). This thick description enables the reader to make decisions concerning the applicability and relevance of the current study findings to their own contexts. Thick description is "a way to characterise the distinctiveness of qualitative research in terms of both process and product" (Hammersley, 2008, p. 52). Such detailed descriptions make the phenomenon in question clear to readers and assists researchers in interpretation.

For this study, the researcher described each step in detail and tried to transport the reader to the context where the participants lived and construct their experience. It also enabled the readers to envisage the complexity of the situation.

5.15.4 Purposive sampling

In this study, the sample was purposive and consisted of three groups of participants involving, and directly responsible for, financial allocation to public universities. The first group included two members of the Higher Education Committee at the Libyan Parliament. Those participants are in charge of the design and formulation of policies relating to higher education, including the issues of universities funding. The second group consisted of officials at government agencies including [those in charge of] the Ministries of Higher Education, Finances, and Planning. The Ministry of Higher Education consisted of deputy ministers for financial and administrative affairs and directors of planning management. The Ministry of Finance group is responsible for recurrent university expenditures. Thus, the participants within this ministry were members of the financial committee, the director of budget management, and the director of following management, and the consultant to the minister for university affairs who negotiates government allocations with universities. The third subgroup of government agencies is the Ministry of Planning, which is concerned with developmental expenditure for universities. This group is comprised of members of the financial committee and the director of budget management, as well as the consultant to the Minister of Planning.

The third group consisted of beneficiaries of government funding, namely the public universities. The sample within this group included eleven public universities. The interviews were conducted with the presidents of universities or with a deputy president for the financial and administrative affairs, according to their availability. Sometimes the president of a certain university authorises his deputy for financial affairs to deal with the authorities in charge of government funding.

A description of the processes of data generation and all the associated incidents was provided to enable the readers to gain a clear vision as to the research. The notes generated during the interviews assisted the researcher's understanding of the entire situation, and which was transferred to the readers.

5.15.5 Reflexive journal

The debate regarding the problem of bias in qualitative research remains unresolved in methodology texts, and there is a general lack of agreement about the type and the amount influence from the researcher themselves, and indeed whether this influence is acceptable; also, there is a certain level of consideration as to whether it needs to be “controlled”, and how this might be achieved (Ortlipp, 2008). Several scholars, however, have suggested avoiding the problem of bias by researchers, and rather than attempting to control the values of the researcher, they suggested keeping reflexive journals as a strategy to facilitate reflexivity, whereby researchers use such techniques to examine “personal assumptions and goals” and clarify “individual belief systems and subjectivities”(Ortlipp, 2008, p. 695)

A reflexive journal is “a kind of diary in which the investigator on a daily basis or as needed, records a variety of information about self and method” (Lincoln & Guba, 1985, p. 327). This journal provides information about the researcher as a “human instrument” and the “methodological decisions made and the reasons for making them” (Lincoln & Guba, 1985, p. 327). Such a journal may include the daily agenda of the study, a personal diary of what happened, and any insights that the researchers might collect and record regarding any methodological decisions and their rationales (Lincoln & Guba, 1985). In relation to this study, the researcher had his own diary in which he recorded what happened whilst recording interview data and any potential methodological decisions made at the. Checking notes reminded him of the minor details written down during the data generation section of this study. In addition, the images associated with the notes reminded the researcher of the people and processes associated with generating the data, and thus assisted him in carrying out the subsequent analysis.

Moreover, the reflexive diary has been used by the researcher as a means to record the interactional aspects of the participants in order to use them to support the analysis of the data collected, as well as to pursue and maintain a comprehensible and collaborative dialogue between the researcher and the participants. The interviews conducted have resulted, in addition to verbal responses, various nonverbal data (body language), namely in the form of visual cues, facial expressions tension, anger, sarcasm, curtness, amongst others.

For instance, one of the participants from the ministry of higher education (G10), when he talked concerning the lack of modernisation and keeping up with international trends of applicable financial legislations regarding financing universities, seemed angry and dissatisfied with this problem, when he said *“this legislation must change, must change (he repeated it twice) because it has become out of date.”*

Concerning the problem of the inadequate government financial allocations, one of participants from the universities group (U1-2) described dealing with the government regarding university funding as a ‘war’. The participant was very pessimistic; this was clear to the researcher through the participant’s facial expressions during the interviews. The truth is that this situation left us dissatisfied with the position in which we found ourselves. In addition, it made us think of leaving the responsibility behind, because I am no longer able to see the associated problems and am unable to solve them, because of inadequate funding. The interviewee summed up his perspective through the following quotation: *“The truth is this situation makes us fed up with the position in which we are in”*.

Nevertheless, other instances provided a positive impression through the verbal and nonverbal communication of several interviewees about a consulting service as one of the resources of public universities. A senior management member at University (U11) was optimistic and satisfied regarding the internal regulations of university consulting offices; this was clear to the researcher through the facial expressions of the participant, which were very promising. This can be inferred from his statement that: *“I believe that the research centres are the first step into the possibility of diversifying funding sources of universities if the university exploits this chance correctly, especially since they obtained the opportunity to get rid of restrictions, the government restrictions.”*

As a result, the lack of the use of such cues in analysing data would clearly negatively affect the accuracy of the results of the research. Therefore, for this study, the researcher made use of the reflexive diary to help analyse the data; it contributed to an increase in the accuracy of the analysis, allowed for clear arguments, and improved the reliability of the results of this research.

5.15.6 Dependability

Dependability is concerned with the possibility of re-conducting the research with similar or the same participants and achieving the same results (Lincoln & Guba, 1985). This procedure assisted in achieving consistent criteria. Establishing reliability depends on “replication, of the same methods to the same participants under the same condition which yields similar measurements” (Erlandson, 1993). Consistency is visualised in terms of dependability, which embraces stability and tractability. Dependability can be communicated by means of a dependability audit.

To achieve this (audit), the researcher needs to “keep a fairly detailed record of the process of the research decisions” (Denscombe, 2010, p. 300). To ensure dependability in this study, great thick descriptions of the entire research process must be given in a way that makes it possible for the word to be transferred to a similar context.

5.15.7 Confirmability

Confirmability is concerned with representing the information participants provided, and not invented by the inquirer (Polit & Beck, 2012). This is analogous to reliability in quantitative research. In the same context, confirmability indicates the degree to which the researcher is presenting findings that are the results of the research, rather than being the results of the researcher’s biases (Erlandson, 1993). Guba & Lincoln (1989, p. 243, cited by (Erlandson, 1993) argue that “data can be tracked to their sources, and that the logic used to assemble the interpretations into structurally coherent and corroborating wholes is both explicit and implicit”. It can be posed through the question: “Do the data help confirm the general findings and lead to the implications?” (Marshall & Rossman, 1999, p. 194). These authors also note that this criterion helps to answer how much a researcher asserts their depth of understanding of the interviewees in order to gain entry into their worlds.

Confirmability of findings through an “Audit trail” is defined as “a systematic collection of materials and documentation that would allow an independent auditor to come to conclusions about the data” (Polit & Beck, 2012, p. 591). They note that certain specific documentation should be kept by the researcher. The list includes original data, early data interpretation and communications with research interviewees.

The aim of the current research is to explore, understand and examine the government policies relevant to public university funding in the Libyan context; it is necessary to

ensure the interviewees' perspectives that actually emerged during the translation and reviewing of the interviews "reflect(s) the thoughts, feelings and experiences of the people who participate in our research" (Lietz et al., 2006, p. 444).

This study has attempted to satisfy the issues recommended above. Thus, the researcher's bias has been acknowledged through the claims he made about understanding the topic and the organisations in this study. The interaction between the researcher and interviewees is acknowledged in terms of what may influence the interviewees during the study. The researcher also formed an interpretation of the world as constructed by the interviewees (Lincoln & Guba, 1985). Subjectivity was limited in favour of the accounts given by the interviewees as they responded to the semi-structured questions in this study. Further, a record of the data used is still available from the institutions concerned, where the transcripts are safely stored.

5.16 The Experience of data collection

To begin the "journey" of data collection, the researcher had to take certain steps. Each interviewee carefully reviewed the audiotape consent forms and the informed consent form, and they signed a copy of each. Such documents have been delivered in person due to the internet in Libya being particularly unstable; also, because of the daily duties of officials that make them ignore to response for some emails that they believe are not important. All these reasons compelled the researcher to contact such individuals in person, introduce himself, and give a brief account of the research and its aims, and the interview that would be conducted and its length, to seek their formal agreement to take part in the study. The researcher usually started with a friendly discussion, hoping to create a rapport with those targeted for the interview. Although it was time consuming, the researcher found it useful and effective in reducing the levels of formality when conducting the actual interviews.

5.16.1 Managing participants

There were a few officials who preferred formality when dealing with the researcher, to the extent that they did not even allow him to come into their offices for their first meeting. They asked their secretaries to take the letter and the information to decide on the possibility of scheduling an appointment and contacting the researcher later on. Moreover, meetings with these same individuals were wrapped with reserve in most cases.

In fact, and due to the prevalent social and political situations, the researcher resorted to social relationships as a solution. For instant, his brother is a professor at the University of Tripoli and he has colleagues in different universities. He helped him to book appointments with officials and administrators who had been targeted for this study. Because of the current on-going conflict and insecurity in some areas like Serit, it would be risky to just think of going there. Fortunately, the chancellor of the University of Serit works as a part-time staff member teaching postgraduate students at the University of Tripoli, Faculty of Engineering. This was a valuable opportunity to meet this man.

Similarly, the researcher relied on his personal and collegial relationships to some extent. He worked in the Ministry of Finance and still has good relationships with his colleagues who supported him by arranging appointments with a number of officials, such those in the Ministry of Planning where his friend managed an appointment with one of the consultants. It was a fruitful and distinctive meeting. Such cooperation enabled the researcher to meet two members in the Higher Education Committee as they were also part-time staff members.

5.16.2 Scheduling appointments

To schedule appointment times, the researcher was very flexible in giving the interviewees the option to choose the time they thought most convenient. This made the researcher obliged to accept meetings with them after finishing work, for instance. This was not without advantages, however; the meetings were more useful, comfortable and less bothersome. However, meeting within the official working hours was full of disturbance, and cut off the chain of thought on the side of those being interviewed. Some staff members often interpreted them as seeking advice or for the purpose of signing necessary documents; also, some of these officials were obliged to reply to certain phone calls during the interviews because of their importance.

The researcher remembers conducting an interview with a vice chancellor for administrative and financial affairs of a certain university when he received a phone call from his chancellor. The researcher pretended that he was not distributed by the call by smiling and saying “no problem” in reply. All this was in order to create the appropriate atmosphere to carry out the interview.

5.16.3 Place of interview

Most of the time, interviews were conducted in the offices of the interviewees. Some of the problems mentioned earlier occurred in the office of the main official. Some employees tried to avoid any potential bother associated with unexpected visitors and large numbers of phone calls by using another office only their secretaries were aware of this. The meetings and the interviews were more comfortable to both the researcher and the interviewees. One official suggested holding the interview in an advisory office of one university in which the meeting was in harmony for both of us. Another individual with whom I have had a personal and friendly relationship suggested holding the interview in a sophisticated cafe. We reserved a quiet corner where the interview was conducted easily. All interviews were conducted in private, with no-one else present.

5.16.4 Problems associated

Some of the problems the researcher faced were connected with the political instability and the sit-ins which lead to the closure of streets and roads. All such incidents represented hurdles to the researcher carrying out interviews or just meeting certain officials on time. Once the researcher had a meeting at 10 am in the Ministry of Finance. When the researcher got there, he was shocked when security officers stopped and told him that work had suspended, because employees are in a strike situation for demanding to increase in their salaries. Breaking appointments was another problem that annoyed the researcher. He had already made the date, but if the participants came, they would be late, or their secretary apologized for not having the meeting scheduled, saying that another appointment would be made and they would contact the researcher later. This was a real hurdle in terms of following the plan for the data collection process and conducting the required interviews.

5.16.5 During interviews

When carrying out interviews, some officials sometimes extended their talk to include children or criticise officials that hindered the flow of the interviews. These parts were cut when uploading the interviews because of their personal nature and out of respect for the interviewees. For example, one interview lasted about two hours because the interviewee talked about irrelevant issues that had no direct or indirect relationship with the research. It was only a talk about personal adventures, his family affairs and his

childhood, which took around half an hour. However, I met some who were pessimistic and their talks were permeated with a considerable amount of criticism.

5.16.6 The interviews

In fact, the interviews were effective and of high quality, which went beyond the researcher’s expectations. The officials interviewed were satisfied with the questions and the way the interviews were conducted. The follow-up questions yielded more interpretations of interviews questions. These officials were enthusiastic about the study, in particular in light of the paucity of any studies in the past concerning funding of higher education in Libya, despite the importance of the subject and the great hope that this study will serve to finance Higher Education and, in particular, the Libyan economy; the participants believe that it may well form the nucleus of other, future studies.

5.16.7 The interview questions

After the interview questions had been improved through the results of the pilot study; the researcher made further modifications to such questions before they were officially distributed to the participants for conducting the empirical study. Moreover, for conducting the interviews to obtain rich information for strengthen the research results, the researcher believes it is necessary to justify the interview questions. The following table shows the interview questions provided in reference to the research questions, and explain the justifications for the interview questions.

Table 5-3: Interview research questions

Interview question	Purpose of the question	Academic source	Related Research question
Could you please tell me, where does your university secure funds from?	To find the necessary information needed and different perspectives concerning funding sources.	Federico, 2012; Goksu & Goksu, 2015; Jongbloed & Vossensteyn, 2016; Newton, 2016; Nkrumah-Young & Powell, 2011; Ziderman & Albrecht, 1995.	Sub- RQ 1.

What mechanisms are adopted by the authorities to allocate financial resources to the public universities?	To reveal various attitudes respondents regarding the mechanisms are adopted by the authorities to allocate financial resources to the public universities.	Jongbloed, 2010; Dea, 2016; Ziderman & Albrecht, 1995; da Costa Marques, 2015; Jaramillo & Melonio, 2011; Skrbinjek & Lesjak, 2014.	Sub- RQ 1.
What is the criteria used by the government authorities, for distributing financial sources to the public universities?	To explore the criteria used by the government agencies for distributing financial resources among public universities.	Jongbloed & Vossensteyn, 2016; Mutiso et al., 2015; Salmi & Hauptman, 2006a; Ziderman & Albrecht, 1995; Dea,2016; Cheung,2003; Woodhall,1992.	Sub- RQ 1.
From your perspective, up to what extent plans, objectives, priorities, statistics, data sets, are considered by universities for financial resource allocation?	To reveal various perspectives about the extent of impact objectives, priorities, and statistics on the government's decision concerning allocation financial resources to public universities.	Jongbloed & Vossensteyn, 2016; Mutiso et al., 2015; Salmi & Hauptman, 2006a; Ziderman & Albrecht, 1995; Dea,2016; Cheung,2003; Woodhall,1992.	Sub- RQ 1.
In your opinion, why government fund universities?	To identify the various attitudes regarding the motivations underlying behind government funding.	Garritzmann, 2016; Holmes & Mayhew, 2016; Jongbloed, 2010; Toutkoushian & Shafiq, 2010; Ziderman & Albrecht, 1995.	Sub- RQ 1.
What are the economic, social, political, and other factors that influence the allocation of financial resources to universities? Also, how do they affect it?	To reveal the different attitudes of respondents regarding the important factors that are influencing the allocation of financial resources to public universities in the Libyan context.	Potrafke, 2011; Sangiumvibool & Chonglertham, 2016; Sanyal & Martin, 2009; Schiller & Liefner, 2007.	RQ 2.

What is the extent of the impact of the current political situation in the distribution of financial allocations to universities? How?	To reveal the different attitudes of respondents concerning the impact of the current political unrest situation in the distribution of financial allocations to universities.	A specific question concerns the Libyan situation.	RQ 2.
Could you please tell me, what are the challenges universities face, concerning the financial aspects?	To identify the challenges and prospects faced by Libyan public universities with respect to funding.	Sav, 2010; Experton & Fevre, 2010; Kamola, 2014; Teferra, 2015; Woldegiorgis, 2017; Experton & Fevre, 2010; Okebukola, 2015a; Teferra, 2013; Salmi & Hauptman, 2006a.	RQ 3.
In your view, what are the main strengths and weaknesses of the existing system for funding universities?	To reveal the different attitudes of organisational respondents concerning the main strengths and weaknesses of the existing system for funding universities.	Sav, 2010; Experton & Fevre, 2010; Kamola, 2014; Teferra, 2015; Woldegiorgis, 2017; Experton & Fevre, 2010; Okebukola, 2015a; Teferra, 2013; Salmi & Hauptman, 2006a.	RQ 3.
In your opinion, can the current political unrest and conflict in the Libya, be one of the issues, which hinder the distribution of financial resources for universities? If yes, how?	To explore several issues that have emerged accompanying the current conflict in Libya and influences the distribution of financial resources for universities.	A specific question concerns the Libyan situation.	RQ 3.
If you had the opportunity, to alter the way universities are funded, what changes would you make?	To explore different proposals that provided by interviewees in order to improve the current funding model.	A general question.	

Would you like to add anything to the discussion? Is there anything, in your opinion that has not been covered within previous questions?	To reveal the different attitudes respondents concerning further comments for improving this research.	A general question.	
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Source: designed by the researcher based on the literature review.

5.16.8 The participants

The majority of participants I met were highly qualified holders; thus, their responses were scientific, and their narrative of information was consistent. These educational backgrounds have been polished by good practical experience, which produced officials who offered valuable information. After conducting the interviews, the researcher realised that the participants and semi-structured interviews were appropriate and fruitful to a large extent in collecting necessary data. In addition, the researcher is convinced that there are no more efficient ways than this to achieve the research objectives.

To ensure the anonymity of the participants, during interviewing, each was assigned the pseudonym of "Interviewee" coupled with a letter of the alphabet corresponding to the sequence in which his or her participation occurred. For example, U1, U2, U3... for university interviewees; for government agencies the researcher used (e.g., G1, G2, G3) and potentially identifying characteristics have either been omitted or disguised. The following table shows such codes with more details:

Table 5-4: The interviewees' profiles

Case	Code for the interviewee	Organisation Type	Gender	Duration of the interview (Minutes)
1	G 1	GL	M	37
2	G 2	GL	M	79
3	G 3	GP	M	66

4	G4	GP	M	61
5	G5	GF	M	55
6	G6	GF	M	91
7	G7	GF	M	69
8	G8	GF	M	44
9	G 9	GH	M	61
10	G10	GH	M	48
11	U1	U	M	91
12	U1-2	U	M	63
13	U2	U	M	89
14	U3	U	M	37
15	U3-2	U	M	54
16	U 4	U	M	40
17	U4-2	U	M	77
18	U5	U	M	53
19	U5-2	U	M	34
20	U6	U	M	67
21	U7	U	M	51
22	U8	U	M	82
23	U9	U	M	49

24	U10	U	M	57
25	U11	U	M	92

GL = Legislature Authority member

GP = government- Planning ministry member

GF = government- Finance ministry member

U = University

5.16.9 Documents

The researcher encountered great difficulty in terms of gaining access to documents, particularly those related to the financial affairs of higher education institutions in Libya. With the help of his friends and the great understanding of certain people, he gained access to certain documents such as the financial law of the state and regulations governing the distribution of budget allocations, statistics relating to some aspects of the financial allocations and a number of budgets over a number of years, some internal regulations, some studies and strategies for higher education.

To summarise, the data collection stage was not free from problems related to the institutions, the officials and policymakers. Other personal and family affairs contributed to the increase in the pressure on the researcher. Yet it was a valuable chance for the researcher to become aware of the current situation of the country and its consequences on the cycle of life in Libya and the institutions involved in this study. All this widens the researcher's awareness and knowledge regarding the extent of his research and its potential outcomes.

5.17 Summary

This chapter discussed the methodological adoption and the design of this study. At the outset, the study aims and the research questions were presented, followed by a discussion as to choice of philosophy and research paradigm. Then, a justification for adopting a qualitative research approach was also elaborated. The chapter also provided a detailed account as to case study, the various types and their limitations. This was followed by a description of the choice of sample size. Regarding the analysis of the data, the stages explained by Braun and Clarke (2006) guided the researcher through the lengthy process.

Ensuring the trustworthiness of the study entailed addressing the concepts of dependability, credibility, transferability, and conformability. Besides, issues related to ethical considerations such as acceptance and access, informed consent, avoidance of harm, anonymity, and confidentiality of participants were explained thoroughly. Finally, the researcher's experience with data generation shed light on an important stage of this research and the impact of this on the researcher.

Chapter 6 - Findings and discussion

6.1 Introduction

The previous chapter gives details of the methodology employed in this thesis. However, this chapter provides a bridge for the reader to chapter seven, which offers the conclusions and recommendations of this study. This chapter aims to present the main findings of the empirical investigation in relation to the research questions, which explores, understands and examines the government policies relevant to public university funding in the Libyan context. It also responds to the research questions and ultimately leads to the conclusions and recommendations. Moreover, this chapter aims to discuss the key findings of the study, and then evaluate such results in the light of the previous literature related to the field of higher education funding

In this qualitative research study, the researcher relied on a combination of both face-to-face interviews and secondary sources in the form of documents to address the objectives set and answer the research questions. The most significant data is from the interviews, with evidence cross-referenced with data from relevant policy documents, reports and the literature. As demonstrated in that chapter, face-to-face semi-structured interviews were conducted with twenty-five stakeholders (respondents) from public universities and different government agencies involved in funding higher education institutions in Libya.

6.2 Findings from both universities and government Agencies' perspectives

The findings of the analysed data will be presented in accordance with the research questions. The principal aim of this research is to explore, understand and examine the government policies that are of particular relevance to Libyan public university funding, from both the perspectives of the public universities and the government agencies in charge. This aim will be achieved by fulfilling the following research questions:

- What financial resource allocation model is applied to Libyan Public Universities in terms of?
 - i. Funding sources
 - ii. Resource allocation criteria
 - iii. Motivation for the government.

-
- What are the factors influencing the allocation of financial resources to universities?
 - What are the challenges facing universities with respect to funding?

In order to answer the above questions, the researcher immersed himself deeply in the field of investigation, respondents' answers to interview questions, and analysis of relevant documents; this enabled the researcher to gain a thorough understanding of the background material in order to facilitate the interpretation of the data.

6.3 The current model of resource allocation of funding for Libyan universities

To provide an analytical view of the findings, the information needed to establish a full picture of the current model of allocation mechanisms in public university financing, especially concerning funding sources and the criteria used for allocating financial resources among universities, was considered; besides, this information would also be used to identify government motivations underlying its support to universities.

The objective of this section is to examine the feedback from the respondents with regards to **RQ1**: *What is the current model of resource allocation of funding for Libyan universities concerning funding sources, the criteria used for distributing resource allocations, and motivations for government funding?*

6.4 Funding sources

The overall response indicated that government allocations are the main source of funding; as well as a small contribution by internally generated resources. The literature indicated that the funding sources for publicly supported institutions of higher education come from three main sources: governments (or taxpayers) via grants approved by the legislature authority (general allocations); students via tuition fees; and other entities (both private and public organisations) via contracts, projects, revenue-generating operations, and donations (Jongbloed & Vossensteyn, 2016; Mutiso et al., 2015). Therefore, the following sections present the funding sources of Libyan public universities in detail, starting with the government allocations.

6.4.1 Government allocations

The participants were asked about the source of income; they all confirmed that government allocations are the main source of funding for all Libyan public universities. Regarding this matter, for example, a senior management member of the University (U8) revealed, through the following quote:

“Of course, our university as one of the public universities is subjected to the state, and its funding is mainly obtained by the general budget through government allocations for universities.”
(U8).

The same point was stressed by another management member of the (U4) University as follows:

“Similarity to other public universities, the primary source of funding is the government.” (U4).

The above statement was corroborated by another university’s participant (U3), who also added a brief summary about the funding mechanism used by government agencies; concerning the funding issue, the interviewee illustrated that:

“Well, like other governmental Libyan universities; the government funding constitutes the principal source of the university, through the annual allocations that provided for the University in the form of budgets. The budgets are divided into two types; the first one includes salaries and the like. The second is different, and it covers the expenses used to operate the daily activities of the university and faculties. The Ministry of Finance manages this type of budget. The other budget which is termed "the developmental budget" is also allocated annually, which usually is divided into construction projects and different programmes, and it is under the supervision of the Ministry of Planning.” (U3).

He added the following comment as an indicator of the existence of own revenues, by stating: *“also, there are some own resources, such as rents of photography shops, cafes, and others [...].”* (U3)

In the same way, the financial law of the state is concerned with the types of budgets adopted for financing the public sector, including public universities. Such law is concerned with managing the distribution of financial allocations across the public sector, including the public universities. The financial law of the state confirms this within its first section - article. As follows:

“The expenditure is divided into parts, and it is allowed to classify into branches; each part contains the following lines: the first section is allocated for salaries and wages; the second section is assigned for general operation expenditure; the third section is allocated for developmental expenditure.” (The financial law of state)

However, comments by several participants revealed that government funding is shrouded by a set of problems, whether the value of the funding allocated is inadequate, or the mechanisms used are too complex in their procedures, the unfairness, and ambiguity in the criteria used. One of the government officials was pessimistic, and provided a general description regarding the government funding to universities, by remarking:

“...., the truth, the followed policy concerning government funding to universities is a waste of public money” G2.

As a reaction to such a response, the researcher asked a follow-up a question concerning the reasons for this negative judgment: “what are the reasons behind this judgment?” The interviewee based his perspective on the lack of any real linkage between the universities capabilities and students’ enrolments. He claims that the acceptance of students in universities is not subject to the extent of the capacity of those universities, but on a policy that was adopted by the government. This inference is drawn from the statement quoted below:

“Well, when are imposed on the universities to accept 120 thousand students and is, in fact, their absorptive capacity only 20 thousand, this means 100 thousand students outside of absorptive capacity of the university, in this case, will not benefit from them if you want to invest in human.” (18).

Regarding the value of the government allocations, interviewees highlighted that the government allocations were insufficient, and were unable to meet the needs and demands of universities. All universities complain of the inadequacy of government financial allocations. For instance, a senior management member from University (U11) commented on such issue by stating:

“One of the critical weaknesses of funding system is the inadequacy of government allocations; there is a big gap between universities’ demands and the financial allocations granted by the government.” (U11).

These responses are in line with the government reports, specifically the report issued by the Ministry of Planning; the report revealed that the percentage of government allocations to the requested funding did not exceed 17.45 in 2008.

As a result of the findings received, the overall response concerning the funding sources indicated that the public universities' operation is mainly dependent on the funding received from the government. Besides a minuscule contribution from internally generated resources has been generated through exploits in the universities facilities, such as rent of photography shops facilities, cafes, and consulting activities; or fees imposed on students for registration or obtaining various services. Almost all responses highlighted that, overall, amounts generated by the universities are very small and sometimes negligible (despite there being multiple sources for their own such revenue); in particular, when they are compared with the funding given from the government or with the universities' annual needs. Based on the government reports, such resources, when compared to the recurrent expenditure did not exceed 3% at best.

This could not help universities to cover their expenditure in light of the current situation, particularly in terms of provision of other sources and the availability of alternative sources. It also does not allow universities to resume other activities that might contribute to their overall expenditure. Consequently, they become a heavy burden on the government, being effectively entirely reliant on government for their income. This seems to be consistent, at least currently, unless complete changes can happen suddenly.

The literature revealed that the domination of government funding on the structure of public university funding is not only exclusive to developing countries but extends to many others regardless of their development level. For example, the results obtained from the Libyan case are similar to the findings disclosed in previous studies. For instance, Ahmad et al. (2015), revealed that the funding for higher education institutions constitutes 90% of governmental subsidy and the remaining 10% is received from the fees of students in Malaysia. Moreover, the current findings are similar to earlier empirical evidence found in studies conducted in several African countries; for example, Toguebaye (2015) revealed that in 2012, in Senegal, the governmental subventions contributed to 81.17 % of the total universities income, and the remaining for 18.82% was from internally-generated resources. Such results confirm the findings of similar studies conducted in Africa such as (Newman & Duwiejua, 2015) in Ghana, and (Okebukola, 2015b) in

Nigeria which indicated that government funding is the dominating contributor for higher education funding.

However, in the European countries, the situation is different in terms of the income structure of higher education institutions. A report issued by the European University Association, by Claeys-Kulik and Estermann (2015) shows that, in England, about 40% of the total income comes from public funding, whereas it accounts for about 90% in Norway and Denmark, 68% in Romania, 60% in the Netherlands, and 80% in Portugal. Moreover, the results of this study are in line with another study carried out in several Italian universities, the results of which showed that Italian universities are mostly financed directly by the government, and student fees contribute a small part (around 10%) of Italian universities' incomes.

Moreover, it is probable that the dependence of universities on the government allocations as their principal source of funding exposes them to government influence. This is in line with the resource dependence theory, which assumes that organisations that receive their finance from a single source will be significantly dependent on that supplier (Pfeffer & Salancik, 1978).

In order to provide a full picture concerning the funding sources of universities, the following section will discuss the complementary part of universities sources of finance, which is the internally generated resources of Libyan public universities.

6.4.2 Complementary income (Own resources)

All participants indicated that along with government allocations, the universities also have several other sources (non-government) implying they exploit the facilities available to them, such as rent of photography shop facilities, cafes, and consulting centres at some universities, as well as tuition fees imposed on students for registration or obtaining various services. This is clearly noted in the following quote:

"[...]; yet, there are some other sources generate from own resources, such as revenues from cafes renting, photographing centres, internet services, rental the buildings, and others." (U4).

6.4.2.1 Tuition fees (registration fees)

The universities impose various fees on students for providing several types of services. For example, students' contributions are made through multitude types of fees: registration fees for each semester/ academic year, acceptance fees, identity card fees, departmental registration, appeal against results, suspended enrolment, and others; overall, these fees are very small compared to university education costs. Due to the small value of the fees, the majority of participants believe that such fees are registration fees, not tuition fees. This is evident, as indicated by the response from a senior management member at university (U3) by saying that: *“in addition to the tuition fees, which is, in fact, is not a tuition fee, but it is registration fees which do not exceed 10 dinars for each student”* (U3) 78.

Another respondent agreed with the previous interviewee about the value of registration fees and added further explanation regarding the types of fees imposed on students for use of various administrative procedures during their studies. This inference is drawn from the statement below:

“For example, we have many types of the fees paid by students such as registration fees, fees for getting an identity card, dropping and adding academic modules, appeals against students' results, and others” (U8).

However, there are two exceptional universities with a special nature concerning the tuition fees imposed. The first case is the Open University, which adopts a distance learning system, and the Libyan Academy of Postgraduate Studies. The following quote is an illustration of this:

“[...] moreover, we have some other revenues. for example, registration fees, what is known as renewal of registration of 50 Libyan Dinars per semester; an examination fee is 10 Libyan Dinars per module; transfer from department to another you need to pay 10 dinars; if you want to get an equivalent certificate, you have to pay 10 dinars as a fee; also, to get a transcript you have to pay 10; and so on.” (U10).

6.4.2.2 Business sources

Furthermore, some university facilities could be invested to contribute to obtaining own revenue. Thus, the Libyan universities have other forms of internally generated revenues such as engagement in commercial activities, renting available buildings such as cafes,

stalls, photocopying shops, internet centres, and others. All interviewees from universities agreed that such revenues are a part of the own resources of universities. This matter was explained by a senior management member of University (U8), by commenting:

“These own resources are derived from the rental of cafes, shops, libraries and photocopying shops.” (U8).

As mentioned earlier, the Open University depends on distance learning. Thus, it exploits this aspect in increasing its own resources, through selling textbooks and explanatory notes, as per the following:

“Also, the revenue from the sale of systematic books, whether from the university publications or other” (U10).

In addition to the regular internal revenues, several universities have consulting offices and training centres. Those offices have a particular procedure concerning their revenues management; the income generated by such activities, means the universities have the right to manage this type of income based on universities’ plans and their vision, unlike the other own resources that are government restricted. A senior management member at University (U11) was optimistic, as he expected that consulting and training activities would have a bright future in contributing to the development of the university on the scientific and financial level for the both the university and its professors. Also, he pointed to the existence of an opportunity for self-funding through consulting centres without government restrictions on their income. He believes that the university should invest in such advantages because they are a chance to obtain greater freedom from the government restrictions. In this regard, he elaborated that:

“There is a real opportunity to gain a self-financing without government pressures; research centres provide this chance. I believe that the research centres are the first step into the possibility to diversify funding sources of universities. If the university exploits this chance correctly, especially since they obtained the opportunity to get rid of restrictions the government restrictions.” (U11)

This perspective is confirmed by a senior official from the Ministry of Finance, who stated that the government has made an exception with respect to the revenue from consulting offices; according to the internal regulations of those offices, the universities has the right to take advantage of a part of their own income. He claimed that:

“[...] there are some internal regulations applied by universities which have consulting offices; these regulations are given to the universities the right for managing of a part of their consulting offices' revenue freely” (G7).

In general, money generated from those consultants and training programmes is distributed across several beneficiaries: university, work team, the government, and others. For example, a university requires that a certain percentage of the proceeds from activity centres is paid to it because of the staff time and facilities used. The researcher reviewed and compared the available regulations of those offices, and noticed that there is a variation between them, particularly in terms of revenues distribution. For example, University (U4), and according to article No 63 of the internal regulation; the consulting proceeds are distributed as follows:

“Consulting revenues are divided according to the following: University gets 20%, consulting centre's gets 30%, and work team receives 50%; such distribution according to an agreement contains the role and responsibility of each individual”.

Nevertheless, in University (U11), the situation is different; according to article 156 of the internal regulation of the consulting office, the article says:

“the financial returns that obtained by the consulting office for providing scientific research, engineering consulting, training or refreshing courses to official bodies or others; such revenues after deducting the associated expenses, will be distributed as a following: 5% for formation the legal reserves, 25% for university development, and 70% distributed between work group according to their efforts.”.

However, although there are multiple sources of own revenues, the income as a whole from these resources are entirely low scale compared with universities' overall financial needs on the one hand, and compared with government allocations on the other. The low scale of own resources has been confirmed by the participants' responses and the indications from the financial reports issued by the controlling government agencies. The majority of replies showed that the self-revenues are very low. For example, two senior management members of universities emphasised this by stating:

“Our university is one of the government universities, and is funded mainly by the government; where the value of own resources is very limited, do not exceed 5 hundred thousand Libya Dinar a year.” (U9).

“If you compare the self-revenues with university's spending in general including salaries, operational spending, and developmental expenditure. The self-revenues do not constitute anything, but if compared to operational spending only in this case I think, it will not exceed 10% of it.” 21

The financial reports issued by the Finance Ministry show the value of universities' revenues; such reports indicate that the own revenues of the universities are very low. The following table clarify this situation:

Table 6-1: The proportion of own resources to the recurrent expenditure (%)

Year	2001	2003	2005	2006	2007	2009	2012	2013
Own revenue (Thousands)	5233	6748	6910	8661	1892	7803	0	9550
Total expenditure (Thousands)	170020	220545	41950	456577	118242	803981.6	9841191	1646400
The proportion of own resources to the recurrent expenditure (%)	3.07	3.059	1.64	1.89	1.6	1.0	0	.58

Source: The Finance Ministry

The present results agreed with the previous studies (e.g. Ahmad et al., 2015; Newman & Duwiejua, 2015; Okebukola, 2015a; Toguebaye, 2015) regarding the lack of own resources. Nevertheless, although the present results corresponded with the previous studies regarding the lack of own resources, there is still a significant difference between the findings of this study and the literature concerning the sources of own resources. A set of previous studies (e.g. Ahmad et al., 2015; Harvard University, 2015; Johnstone & Marcucci, 2010; Rozmus & Cyran, 2012; Stanford University, 2015) addressed own resource as a part of the funding sources of public universities. They indicated that the donations and endowment constitute a significant contribution to the structure own resources of public universities. However, the present findings revealed that such sources do not have a definitive presence within the structure of own resources for Libyan public universities, despite the fact that the education law allows universities to receive donations and endowments (Education Law No18/2010, Article 61). The reason behind

such an absence could be attributed to the lack of philanthropic culture towards public universities. Such expectations largely correspond with a study conducted by (Jaramillo & Melonio, 2011), it concluded that the philanthropic option for additional revenue for higher education institutions is not currently used in MENA countries, which requires building a philanthropic culture to make this funding form a part of funding sources for public universities.

The imports from the above responses and results of reports obviously indicate that there are low-scale own resources. Therefore, these responses prompted the researcher to think deeply about this issue by asking the question: “In your opinion, what are the reasons behind the low self-revenue of universities?” Thus, based on the participants’ responses, the following section identifies the main causes that are an obstacle to increasing the level of own resources for Libyan public universities.

6.4.2.3 The reasons behind the low scale of own resources of universities

The interviewees’ responses concerning the causes underlying the failure to achieve high rates of own resources within universities were varied. Some of them attributed the decline to the legislative and the government restrictions over universities; such hinder the universities in their search for alternative sources of funding. Others believe that the Libyan universities are not equal in terms of capabilities and available infrastructure; thus, the decline in own resources will be more evident in the emerging universities, which suffer from a lack of infrastructure and facilities. This section highlights these issues with further details.

6.4.2.3.1 Applicable legislations and government restrictions

The universities’ participants were unhappy and extremely frustrated regarding the legislative restrictions and their negative impact on university activities. Such obstacles were identified and explained by several participants. For example, a senior management member of University (U3) exemplified this finding as follows:

“the truth, we can attribute the weakness of our self-revenue to several reasons; the most important of which are legislations and laws that govern the universities work. Such legislations set up restrictions, which limit the universities for searching additional of own revenues; as well as those laws prohibit the use of that revenue by universities.”
(U3).

This opinion was reinforced by a comment made by a senior official at the Ministry of Finance, who confirmed that the inability of universities to use their own resources can be attributed to the current legislation in force, which prohibits universities from doing so. This inference is drawn from the quote below:

“According to applicable legislations, it is not allowed to universities to use their own revenues or deduct part of them, and the universities are obliged to deposit those amounts in the government’s accounts.” (G6).

The views expressed by the respondents above are consistent with what is stated within the account regulations issued by the Ministry of Finance, which prohibits the use of self-revenues in public entities. The article clarifies this as follows:

“[...] is not permissible for ministries and public entities to use their own resources or part of it to make any payment” (Accounts regulation- article) 38.

At the same context, and concerning the extent of updating such legislation; the legislation suffers from a lack of development and modernisation and keeping up with international trends regarding financing universities. This issue has created an obstacle to the universities developing themselves through their own resources; moreover, such legislation makes the universities almost entirely dependent on the government. All of these barriers are a reflection of the responses of many participants, especially the interviewees from the university group. For instance, a senior management member from university (U4) was clearly upset and dissatisfied regarding the applicable legislation when commenting:

“[...], these legislations are out-dated and did not keep pace with the global trends concerning the universities financing. Imagine, the financial law that governs the work at public entities was issued in 1967. Is it conceivable that we are still at the mercy of the law aged nearly half a century” (U4).

The member of the higher education committee in legislative authority reinforced the previous opinion, and he criticised the current financial legislations. The participant linked university freedom with regards to own resources with the increase in scientific activities in universities. In addition, the participant considered that current legislation is an obstacle to improving and developing the universities themselves; in this regard, the participant provided the following explanation:

“Indeed, restrict the universities through imposing that the own resources in government accounts; this restriction hampers creativity and innovation of universities. On the in contrary, when we give them full autonomy, they will search for more scientific activities through exploiting their human and physical capabilities, because the universities will be sure that they can spend their income on themselves” (G1).

It seemed clear to the researcher that most interviewees, whether from universities or being government officials, all agreed to some extent on the principle that the legislation concerning university funding as being out-dated, and it has become an obstacle to universities achieving their ambitions and expanding their activities. As an example, a senior manager at the Ministry of Higher Education was angry in this regard, articulating that:

“[...] this legislation must change, must change (he repeated it twice) because it became out of date. I do not think that there is any country in the world still operated by this futile concept; our problem is the financial and administrative laws are late.” (G10).

In general, the interviewees from government agencies acknowledged the existence of governmental restrictions imposed on universities regarding own resources. However, they provided several justifications as motives for imposing such restrictions. In addition to the issues related to the applicable legislation that has been explained in the previous sections; they argued that corruption is endemic to own resources procedures; another reason is that own revenue is one of the income sources for the national budget.

Regarding the phenomenon of corruption in public entities, this is particularly found institutions that that have own resources, such as universities. Therefore, the government believes that as a control and preventive measure, the own revenue should be under government control. By law, the Ministry of Finance is considered directly responsible for own income derived from public entities, starting with determining the value of the revenue to be collected by each party, and ending with evaluating the revenue collected with its associated assessed revenue. Therefore, the director of the follow-up department at the Ministry of Finance confirmed that most of the financial manipulation cases were within own resources. Concerning this issue, he reported that:

“From my experience, I want to assure you that most of the abuses and manipulations have happened within own resources. Therefore, as a kind of government's control that each university should deposit its

revenue to the government accounts, and then the government will provide to universities their needs according to available sources.” (G6).

The interviewee evidenced several forms used by public entities for perpetrating corruption, as proof of the existence of corruption within the own revenues, he stated that:

“Some entities collect revenues without financial receipts, and therefore, the government agencies cannot identify the actual value of revenue collected. The others do not deposit all revenue in the government accounts, and other problems.” (G6).

Concerning the corruption issue, a senior management member from the Ministry of Planning confirmed the previous statement with actual evidence confirming occurrences of corruption in the past. He recommended that full freedom could not be given to universities with regards to own revenues, so as to avoid the reoccurrence of corruption in the future. The following comment is an illustration of such:

“But the truth, to give full freedom to the universities to spend their own revenue freely has its disadvantages. Through my experiences as a senior official, the government had intended to reduce the centralisation by establishing administrative entities, what is known (Shabeats), and the government provided them full freedom. Unfortunately, the results of such experiment were discouraging, it was one of the corruption entrances, and it was a waste of public money, and recorded high level of corruption, embezzlement and fraud.” (G4).

In addition to the above justifications, another reason for imposing government restrictions is because the own resources of public entities are one of the sources for the state budget. Thus, if such entities neglected to deposit their own revenues with the government, this might cause problems within the state budget, leading to the government’s inability to carry out its targeted activities. The majority of government participants supported this point of view. This can be inferred from the statement quoted below:

“The universities’ revenue is one of the financial sources of the state budget; if we assume that each public party has an own revenue and wants to spend it; in this case how can the government pays its obligations. Therefore, the revenue whether shifts to the government accounts or remains in universities’ accounts, and then deduct it from the university allocations next year when the budget is approved.” (G5).

A further senior official from a government agency stressed the importance of own revenues to finance the state budget. Also, he revealed a new issue related to the necessity of collection of own revenues of universities: namely, that the financial capacity of universities is not equal, and their abilities to obtain income are similarly unequal. This was clearly indicated in his response:

“Let us assume that a certain university has enough own revenue to cover expense; however, how about another university that does not have sufficient funding. In your view, should we close that university? Or ask them to beg in the streets?” (G4).

Inequality of public universities could be attributed to the fact that universities do not receive the same government support. Additionally, it may be because of the government's weak decision making towards the developmental of universities, along with the lack of appropriate physical and human resources.

6.4.2.3.2 Lack of encouragement and seriousness by the government

Government encouragement towards universities is one of the important issues highlighted by the participants during the interviews, which is one of the reasons underlying the weaknesses in own resources. The participants' answers showed that there is a weakness in the government encouragement of universities, and there is a lack of government seriousness in pushing universities to provide proposals that would lead to increases in their own revenues. For example, a senior management member from University (U2) argued that the weakness of government encouragement has made universities more dependent on the government, and made them accustomed to government support. Regarding this issue, the interviewee commented that:

“You do not deserve to be looking for alternative sources of financing as long as the government provides your funds, and this government is willing to pay. The situation will be different if the government is serious about reducing the burden on it, and push universities to fund themselves by their own revenues” (U2).

The issue of lack of seriousness within government to reduce its own financial burdens was not only derived from the university participants; several government agency participants also shared this same opinion. For instance, a senior official at the Ministry of Planning criticised government policy regarding the approval of student grants, which had been decided recently; he considered such a decision to be an indicator of the lack of

government seriousness in reducing its own burdens. He explained his point of view through the following statement:

“At present, the fees collected by universities from students is not worth anything. In 2013, we were surprised that the government decided to grant internal scholarship to universities' students; this is rather than relieving the burden on the government led to increasing the burden on it.” (G3).

As mentioned earlier, the participants' responses and government reports indicated that the own resources are low. The participants attributed this to two main underlying causes that are hindering achievement of high rates of own resources within universities, and influence universities' revenue generation efforts. The obstacles arise from legislation and associated government restrictions, and the lack of governmental encouragement towards universities, and are having a significant impact on such decline.

The results achieved in the literature regarding the own resource of higher education institutions are partially in line with the findings in the present study. For instance, such findings are consistent with the findings of Stachowiak-Kudła and Kudła (2015) in 16 countries of the EU – members of OECD. The study concluded that the financial regulation is one of the factors influencing diversification of universities' income. Moreover, this is similar to results of a study on Portugal's Higher Education by (Teixeira & Koryakina, 2013), which indicated that the financial framework sets restrictions on diversification of universities' income. Furthermore, several other studies (e.g. Gebreyes, 2015; Jacob, Lundqvist, & Hellsmark, 2003; Mowery, Nelson, Sampat, & Ziedonis, 2001; Munari, Sobrero, & Toschi, 2015) have the same perspective, and they believe that policies and laws are significant factors in encouraging universities or erecting barriers to generating non-government revenues in public universities. Also, this is in line with (Estermann et al., 2011a; OECD, 2008a), who argued that more university autonomy is better able to generate funds from different non-government sources.

Concerning the value of tuition fees as one of the components of own revenue of public universities; most participants indicated that the contribution of such income to the total of own resources is particularly low. Moreover, they highlighted that imposing tuition fees is restricted by government regulations; thus, universities do not have the freedom to determine the value of such fees.

Thimposs assertion is supported by the results of a report issued by the European University Association, conducted by Claeys-Kulik and Estermann (2015), which concluded that there is no any contribution from tuition fees in income structures of universities in several European countries such as Finland, Brandenburg, Iceland, Czech Republic, Norway, because of no tuition fees imposed.

However, the result of this study is contrary to that of Garritzmann (2016) findings, which classified the OECD countries into groups in terms of public subsidies and tuition fees. The study concluded that a group of countries are characterised by a high subsidy regime through public grants and publicly subsidised student loans, whilst at the same time, students are charged high tuition fees. Such a category is compatible with the U.S. and other Anglo-Saxon countries. Nevertheless, Korea, Japan, and other Asian countries and several Latin American countries such as Chile constitute this group combination a sparse public subsidy system, with high tuition fees.

Moreover, it might be that the indifference of universities is another reason behind the low scale of own resources. Such indifference is a result of the universities feeling that their internal revenues are not of concern to them because they cannot take advantage of them, as they are obliged to deposit any such funds in government accounts. In other words, the universities are making efforts to obtain income, but to benefit others; such an issue may influence universities negatively, regarding their scientific activities.

Therefore, if the government reconsiders its decisions in this regard, this might be helpful in overcoming the problem of universities' indifference. This might be achieved by providing sufficient flexibility to universities to be able to spend those revenues in agreement with their priorities and their goals. In such a situation, the universities confirmed that the own revenues will directly benefit them. Thus, they will reduce their dependence on the government, and the alternative will be self-dependence even if this is gradual. This point of view conforms to a previous study conducted by Ahmad et al. (2015) which mentioned that sharing the profits generated from universities' own resources between a government and universities may motivate academic staff to produce further income through internal activities.

The clearest evidence was through the responses of the participants about cases of consulting offices of universities. Such offices represent one of a significant source in own resource structure. As an exception, such offices have the right to manage their

revenue in accordance with their plans and vision, without government restrictions, unlike the other own resources. Thus, the universities would do their utmost to raise the income of those offices because they are sure the income will be returned directly to the university, not to the government like other activities.

However, the existence of legislative restrictions on the diversification of income sources of public universities opposes what has been confirmed by many earlier studies (Goksu & Goksu, 2015; Jongbloed & Vossensteyn, 2016; Santiago et al., 2008) and (Teixeira & Koryakina, 2013). Such studies indicated that the global economy liberalisation and shifting socio-economic situations, and changes in the arrangement of funding for public higher education have occurred in most countries across the world. Moreover, diversification of income sources of public universities and generating funds from additional sources other than the government have become acceptable and required.

Regarding government restrictions, the findings of this study are consistent with a study by Jung and Moon (2007), who argue that due to the nature of public money, regulations are attached to government financing under the rubrics of public interest and accountability. Government regulation is often viewed as a double-edged sword, reducing their autonomy in financial management and development program, and interrupting the operations of non-profit organizations. Moreover, based on the institutional theory, legislation and government restrictions are part of coercive pressures that arise from the legal environment; also, the theory argues that coercive pressures occur when an organisation depends on others for essential resources that are crucial to long-term survival (Oliver, 1988; Townley, 1997).

A lack of modernised legislation is another finding of this study. This issue was a point of concern and resentment amongst most interviewees, both from universities and government officials. They all mutually agreed that the legislation concerning university funding is out-dated, and some legislation being obsolete. In addition, it has become an obstacle to diversifying universities income.

It seems the government restrictions on own resources have resulted from the existing legislation; this means that the government agencies might have no role in this regard. Moreover, according to the responses from government's participants, they gave the positive impression that government officials are fully aware of this problem and claim for improving the legislation in force.

Therefore, in response to the repeated claims from universities concerning obstacles caused by legislative restrictions that are exercised over the universities, particularly in terms of financial aspects, the researcher believes that such claims may have influenced the authorities in terms of conducting necessary reforms to the funding system. Such a matter might lead the legislative authority to take further steps towards formulating a new law for universities which will provide for greater autonomy in exploiting own resources.

On the other hand, the government officials provided further comments on the factors identified by universities concerning restrictions over the own resources which serve as justifications for their imposition. The government participants have raised a negative issue which is the rampant corruption associated with own resources as one of the reasons justifying these limitations. In addition, they provided actual examples to clarify corruption forms used by public parties, including public universities. Therefore, the government believes that as a control and preventive measure, the own revenue should be solely under the control of the government. In general, and based on reports issued by Transparency International Organisation, Libya has been ranked as the 7th most corrupt country in the world (Transparency Organisation, 2016). The current conflict might have exacerbated the levels of corruption, particularly in the absence of the state controlling roles on organisation.

Such findings are consistent with Uhumwuangho and Aibieyi (2013) results, who revealed that the Nigerian government experienced cases of corruption in collecting the own resources from public entities. Moreover, the results of this study are similar to an investigation conducted by (Okebukola, 2015b), who asserted that the existence of corruption within the own resources of universities, in particular, associated with commercial revenues. In addition, a study conducted in China by Fengliang (2012), in which he argues for the provision of full freedom to universities in deciding tuition fees, will inevitably lead to corruption and unfairness. Fielden (2008) agreed with this opinion, claiming that the fear of corruption will lead governments to retain control where they might otherwise have delegated to public universities.

Furthermore, one of reasons behind the corruption within the own resources might be due to inadequate government funding to universities, which makes them resort to exploiting their own revenue in illegal ways. Likewise, the government should increase the efficiency of the accountability system, rather than restrict the autonomy of universities

regarding the use of their own resources; this procedure could be beneficial for increasing the universities' revenue and reducing the burden on the government as well.

This opinion is in line to large extent with a previous study by Weber and Bergan (2005), who mentioned that "One of the consequences of continuing under-funding of higher education and the growing public demand for higher education is the growth of corruption." (p. 97). The corruption might result from the inefficiency of the regulatory system in the fight against corrupt practices.

The government participants argued that the own resources of public universities are one components of the state budget; so, if the universities refused to deposit their revenues in government accounts, this might cause problems such as the government's inability to carry out its targeted activities. Thus, they believe that such revenue should be under full government supervision.

This might that due to the fact that the Libyan economy depends mainly on hydrocarbons, its oil and gas revenues being the primary sources of the total government revenue, which accounts for more than 90% of the total financial budget. The remaining revenues come from other sources such as taxes, customs, and others that include the income generated from the universities own activities. Consequently, despite the low university incomes, the government might attempt to diversify budget income and push the universities to contribute to such diversification.

Considering the gaps surrounding tuition fees income, the idea of free education, presented by the Libyan government, was serendipities. Moreover, the situation probably requires parallel measures; the most important of which is raising the living standard and improving related legislation.

In summary, the above sections identified several aspects related to the financial sources of universities, whether in government allocations or own resources from both perspectives (universities and government agencies). Based on interviewees' perspectives and document analysis, the main results show that the public universities are mainly funded directly by the government through two types of budget, recurrent budget and development budget. Moreover, there are also some small amounts of money which fall under complementary income (own resources), which are obtained from tuition fees and various business, consulting and training activities.

From the universities' perspectives, legislation and government restrictions, lack of government encouragement and seriousness for universities to improve their income, are key drivers behind low-scale resources. Nevertheless, the governmental participants provided various comments on the factors identified by the universities. They revealed some fundamental justifications behind government restrictions on own incomes of universities. Such limitations are included within the applicable legislation, which does not give the right to the universities to spend own resources. Moreover, the own resources are recognised as a source of state budget, the restrictions on which is a means used by the government to minimise corruption; lastly, because the universities are unequal regarding their individual abilities to generate income; this reason was consistent with the universities' perspectives.

6.5 Applicable mechanisms and criteria using for financial resources allocations

A key issue addressed in this section is how the government distributes financial resources among public universities; this aspect included the mechanisms and criteria used by the authorities for distributing such allocations. To address this issue, the question posed to the interviewees, as contained in the interview guide in Appendix (6) (see question 3), was "what are the criteria that used by government authorities for distributing financial sources to public universities?" During the review of participants' responses, the researcher pointed out that the criteria used are multiple and overlapping. The participants' answers were sometimes consistent between universities and government agencies, while they were contradictory in other aspects, in particular concerning the characteristics of the criteria used, such as the extent of the clarity, accuracy, and fairness of the criteria used.

In general, as based on participants' responses, several criteria are used for both administrative and development budgets. The results of negotiations and historical basis are considered the main criteria used in addition to other criteria as complementary criteria: inputs, and the importance of universities to the government. Besides, the completion percentage of development projects is used for development budget. The negotiations between government agencies and universities are the most common criteria used, and the results of such negotiations are the key determinant for allocating government resources to universities.

6.5.1 The results of negotiations and historical basis

The majority of respondents indicated that government allocations are based on the estimated budget submitted by the universities to the government authorities as the starting step of the negotiations stage. Such a budget includes several historical indications of previous expenses, as well as the expected universities' needs for next period. Moreover, the negotiations session is interspersed with the justifications and evidence necessary to justify the estimates submitted. The negotiations take place between a government committee known the financial committee, which is formed annually according to the decision of the finance minister, and a group of senior employees from the Ministry of Finance as a decision maker (the first party); universities, as the second party, include the president of the university or his representative, as well as the financial controller (The Finance Ministry, 1973). The evidence stated below is the response of a senior university official:

“And then, the Ministry of Finance forms a committee from several of its senior employees named the financial committee. The task of such committee is for discussing each university about its estimates provided. The Ministry of Finance invites each university separately to attend negotiation session concerning their estimated budget; also, to present justifications behind the estimations submitted” (U2).

The government agencies have a similar perspective to some extent; a senior official from the Finance Ministry asserted that the negotiations should be supported by illustrated notes, which include clarifications, relevant statistics and necessary justifications for enhancing the financial claims and supporting the university's defence. The official summarised the criteria used by the government for distribution of funding in the following quote:

“My point of view, primarily, the criteria applied depend on the historical basis; it means, what has been spent in previous years, in particular, the preceding year. Also, the results of the discussions and negotiations that take place between the universities and the financial committee; as well as the university's ability to justify and defend the required increase, and the extent of the availability of supporting documents to request the increase.” (G8).

Nevertheless, regarding the development budget, the situation is a bit different from the administrative one. For example, the negotiation sessions are conducted by the planning ministry over several meetings, unlike the recurrent allocation which is carried out by the

Finance Ministry over one session. Also, the nature of the items of the development budget has a technical aspect along with a financial one. With regards to such issues, a senior official from the Planning Ministry explained this matter through the following quotation:

“Look, regarding the development allocations; the discussions with the universities do not conduct in a single session, but through several meetings. These meetings are punctuated discussions with specialised technical committees. The Ministry of Planning is careful not to focus only on the financial aspect (cost) but also the technical side, which is the most significant aspect of many projects and programmes.” (G3).

Time allocated for negotiations is a new issue that has arisen due to several participants from the government agencies and universities. They revealed that the time allowed for negotiating is not sufficient to listen to the universities in defence of their claims, and for providing the universities’ documents and plans. For example, a senior official at the Ministry of Finance, and who was a member of the financial committee for several years, commenting on such an issue within the following remark:

“The truth, there is another problem, which is the time allowed for discussing each university is one of the obstacles hindering the negotiation process. It is not logical that the debate's time with a university sometimes does not exceed half an hour. This time is not enough even to display documents, or even a university can present its plans.” (G8).

Finally, a senior management member from (U4) University revealed the existence of a new issue related to the negotiation process, which is negotiation skills. The participant believes that such skills are essential to achieving desirable outcomes, through the ability to convince the members of the financial committee concerning the estimates provided. This is reflected in a quote by the participant:

“[...] as well as negotiations skills, if the negotiator is able to negotiate, this feature makes him affect positively on allocations of his university. Unfortunately, I do not have these skills.” (U4).

Concerning the relevant literature and compared with the findings of this study, the present findings indicated that the results of negotiations are one of the main criteria used by the government for distributing appropriate financial allocations to universities. Such findings are in line with a study conducted by Ziderman and Albrecht (1995), which

indicated that most African countries use the negotiated model for funding higher education institutions.

These results have been confirmed by the World Bank report, Experton and Fevre (2010), which revealed that several African countries, Sudan, Ethiopia, Madagascar Lesotho, Mozambique, Mauritania, and Zimbabwe, use a historical basis for allocating government resources to public universities. Such an approach is dependent on the previous years as a baseline and on incremental changes according to various conditions such as the country's economic, government revenues, or inflation rates. Also, the universities influence allocation decisions through their negotiations with the financial authorities (Experton & Fevre, 2010). Nevertheless, the situation in Ghana is slightly different from the rest of the African countries in terms of pursuing negotiations. The difference lies in the fact that the negotiating partner representing the universities in the negotiations is not a government agency, but a mediator called the National Council for Tertiary Education (NCTE), as obtained from the results of the study conducted by (Newman & Duwiejua, 2015).

Regarding other systems outside the African continent, the findings of the present study are consistent with the results of (Cretan & Gherghina, 2015), who revealed that the government of Greece and Romania's allocation of financial resources to universities is based on a negotiated result, and according to an estimated cost of studies field and the number of enrolled students. Moreover, in Germany, the starting step for budget assessment is the amount a university received in the previous year, and then the stage of budget negotiations. The result of the current study revealed that the Libyan condition in terms of the allocation of the financial resources is different from its African neighbours, and this might be affected by some European countries, at least formally, though not practically.

However, several studies are inconsistent with the present results, which have used in a different approach for the allocation government support. For example, in Italy, the total funding amount by the government is granted to universities as a block and based on their universities' performance, as well as on a historical costs basis (Agasisti & Wolszczak-Derlacz, 2016). Moreover, England has a different funding system, at least to some extent, from other European countries. A study by Claeys-Kulik and Estermann (2015) illustrated that the UK universities obtained part of their funding through the Council for England

(HEFCE), based on the activities of a university and its staff, and then the Research Assessment Exercise (RAE) evaluates such research to identify the funding value of each university.

A few university interviewees believe that there are essential requirements that lead to successful negotiations and desirable outcomes. One such requirement is the negotiators' skills at persuading government officials. This perspective is similar to findings made by previous studies (Experton & Fevre, 2010; Jongbloed, 2000), which mentioned that negotiating skill is an assistant factor in persuading government officials to allocate as much as possible to the university. Generally, due to the allocation of government financial resources not being dependent on absolute facts and figures, negotiation skills might be important in persuading officials concerning the funds required. However, provision of the justification and accurate statistics is more essential, in particular in light of the limited time allocated for discussion of the estimates provided by universities.

6.5.2 Complementary criteria

In addition to the negotiation results as the main criterion, there are several complementary criteria used for providing indicators during the negotiation process; they can also help decision makers determine appropriate financial allocations to each university. According to the participants' responses, the criteria are the historical basis, universities' inputs, the importance of the university to the government, and the completion percentage of development projects.

6.5.2.1 Historical basis

The historical basis is one significant complementary criterion used by the government for allocating its funds, and which works as an accompaniment to negotiation; such a standard is mainly based on what has been spent in previous years as an essential factor. In addition to granting a slight increase because of any changes that might arise in the coming year, such as an increase in the appointment of new labour, enrolled students, faculties, departments, or others. A senior member of management from University (U11), simply described how to use the historical basis concerning salaries as follows:

“Of course, the estimates of the first section as salaries; thus, putting the prior year as a base year, then add several potential changes related to the coming year.” (U11).

The use of the historical criterion has been the subject of criticism from university participants; the criticism is not because of the criterion in itself, but due to the mechanism used to apply it in Libya. The approach concentrates on what is spent, not on what has been allocated in previous years. This made it susceptible to criticism and its description of being unfair by university officials. A senior management member of University (U3) criticised the historical basis as a criterion because it depends on the actual expenditure from previous years; the comment was:

“Indeed, it is unfair and illogical when the government adopts the historical basis for distributing the allocations.” (U3).

This response made the researcher investigate the reasons behind this negative judgment. Thus, the follow-up question was asked: *“In your opinion, what are the reasons behind your judgment that the historical basis lacks to fairness?”* One of examples for the answer was:

“Why? Because when we do not spend all amounts allocated in this year, it will have an adverse impact on the government allocations for us in the coming years.” (U3).

Another senior management member agreed with the previous comment, by saying:

“I see that the Ministry of Finance relies on previous year's expenses and might increase by only a small percentage. This means they depend not on what has been allocated to you in the past year, but on what has already been spent.” (U11).

He added that:

“even though, if they find that you did not spend the whole amount allocated, then you will expect that the allocation will be the same or less than of the prior allocations, as viewed by the members of the financial committee.” (U11).

The above responses and others were given regarding the issue of the inability of universities to spend the full allocations granted. The interviewees' responses led the researcher to ask a more particular question, to obtain further understanding. The question was, *“what are then the reasons behind the weakness of the universities' ability in spending their allocations that granted by government?”*

The complicated procedures and insufficient time for spending allocations are the main reasons that prevent the universities from being able to spend all the funds provided.

Consequently, such a matter gives an indicator to the government agencies that the universities were unable to spend their allocations, or they were not in need of such amounts from the outset. The previous explanation is a summary of the majority of interviewees' perspectives from universities. Also, they were not satisfied because the government does not take those reasons into consideration, and they feel that universities bear the responsibility for the mistakes of others. A senior member of management at (U5) University described this issue in detail by mentioning:

“The best proof of the unfairness of the historical basis criterion is that several years have witnessed a significant delay in the liquefaction (of) the government allocations to universities until almost the end of the year. Logically, a part of the amount allocated will remain without spending. I am sure this is not evidence of not needed to that, but the reason is there is no enough time to complete the legal procedures of expenditure. The strange thing is that the financial committee will tell you that because you did not spend all allocations, this indicates that you did not need them.” (U5).

Another senior official argued that because the government does not provide the financial allocation to the universities on time, the universities do not have enough time to spend all allocation granted. A senior management member provided a long explanation of this issue, when he said:

“I think that we are the only country in the world that does not allocate its allocations on time. The best example is this year 2015, which have not allocated the allocations yet. [...] when we do not spend a significant percentage of the money allocated, then will affect negatively in the next year. The ministries will say that will reduce your allocations due to your inability to spend your allocations; despite the mistake is not our fault.” (U8).

However, the participants from the government have a different view about the extent of the fairness of the historical basis. They justified that the reason behind the universities inability to spend the entire funds obtained was because the universities mismanaged the use of their available allocations. A senior official at the Ministry of Finance presented a general description of the inability of universities to exploit their allocations; he mentioned that:

“There is an apparent imbalance in the inability of universities to utilise the available financial allocations optimally. It can be noted that through the existence of a large part of the allocations have not been

spent, whether concerning administrative and development budget.”
(G8).

Other interviewees from the government added another reason that limits universities' capabilities to spend their allocations; the reason is the overstatement of the estimates submitted by the universities to obtain the greatest possible share of the financial appropriations, which sometimes outweighs the needs of universities and is then larger than their exploitative capacities. A senior official at the Ministry of Finance confirmed this in a statement that:

“The failure to spend all the funds provided, are either because of existing an exaggeration in the amounts required, or it lacks proper study for identifying needs of each budget item.” (G5).

The participants provided evidence to prove that there are inaccuracies and overestimation by universities in requesting appropriate finances for their needs; he said that:

“Based on my experience, I have noted that there are several budget items have been exhausted since the first months of the year, but the other items remain without spending until the end of the year. What this indicates from your point of view, definitely it refers to the mismanagement of some universities.” (G5).

Moreover, a report issued by the Ministry of Planning agreed with the previous replies concerning the weak performance of universities regarding the spending of government financial allocations; the report revealed that the ratio of expenses to government allocations were 86%, 79% and 40% for the years 2008, 2009 and 2012, respectively.

Moreover, the underlying reasons for the poor ability of universities to spend their allocations might be attributed to the lack of an accurate long-term plan for universities on the one hand; on the other, it could be because of the instability of government allocations to universities, which left them in a state of confusion in the implementation of the universities' projects.

This findings of this study are similar to several studies in the literature (e.g. Claeys-Kulik & Estermann, 2015; European Commission, 2010; Experton & Fevre, 2010; Mah'd, 2014; Strehl, Reisinger, & Kalatschan, 2007) which indicated that the historical basis is one of the most common criteria used by governments in supporting universities. This criterion is still used in several countries, such as Sudan, Ethiopia, Zimbabwe,

Madagascar, in Africa; the UK, Denmark, France, Italy, Poland in Europe, and others. These studies also revealed that this criterion depends on the previous year a baseline and further incremental changes based on government revenues, inflation rates, or institutional growth.

Although there is a consistency regarding the existence of this criterion within the set of criteria used by the Libyan government, there is an inconsistency concerning the mechanism applied for distribution of financial allocations among universities. In the Libyan context, the allocations are determined as being dependent on what has been spent, not on what has been allocated in previous years, unlike that used in various countries. However, this result has not previously been achieved. This means that to the best of the researcher's knowledge, there are no studies within the previous literature that indicated that there are governments who use the historical basis criterion, depending on what universities have spent and not what has been granted by government. Therefore, the researcher considers **this result as one of the contributions**. Such a finding contributes to the knowledge and adds something new in terms of government allocation. It also pinpoints the Libyan case as being distinctive in this regard.

6.5.2.2 Inputs of universities

University input is another criterion highlighted by the majority of participants. Such criterion includes various indicators such as the number of students, staff (academic and administrative), departments, buildings, and others. In general, such a criterion is various depending on the type of expenditure. For instance, concerning the first section in the budget (salaries item), this kind of spending is characterised by clarity and ease of application due to its reliance on particular facts and constants (qualifications, experiences, functional degree, and others). Moreover, the salaries allocation is organised by specific governmental regulation identifying the salary of each. It seemed clear to the researcher that most interviewees were satisfied regarding the use of this criterion for the allocation of salaries; also, all respondents somewhat agreed in principle that the formula based input is simple to use and transparent. For example, this is evident, as indicated by the response of a senior management member from (U2) below:

“The first line(salaries), I think there is no problem (a foregone conclusion) because you will provide detailed statements about labour in various categories, employees, academic staff and others, as well as

future expectations of upgrades and bonuses and other variables”
(U2).

Moreover, the government has almost the same perspective regarding salaries expenditure. For example, a senior official at the Ministry of Finance confirmed that the universities have no problem with this type. From his perspective, he summarised this through the following quotation:

“In particular, the salaries, there is no problem in identifying the allocations for this section, because they depend on facts and constants; also, according to the approved statements and national numbers. To be honest, the universities do not complain about such section” (G5).

However, using this criterion does not mean that those inputs can be considered as an absolute term, but based on the participants’ view, the inputs only provide initial indications that could help the decision makers in determining the value of the allocations. For this reason, there is a degree of criticism about the use of such criteria, which are described as unclear and inaccurate. A member of senior management from the University (U9) described this criterion as follows:

“[...] but the criteria used for the administrative expenses are not fixed facts. For instance, when we say the number of students, professors, and faculties is the criteria applied, this does not mean that each student, employee or professor allocated for them a certain amount in administrative allocations. Nevertheless, those figures only provide initial indicators for allocating because there are other criteria used.”
(U9).

It is worth mentioning that the Libyan universities differ in terms of faculties’ distributions; there are branches of the faculties at the same campus, while others are spread over several campuses. Therefore, according to several interviewees' responses, the government takes a geographic distribution of faculties into consideration when it allocates the resources among the universities. A senior official at the Finance Ministry and a member of the legislative authority explained this trend, respectively:

“Also, the geographical area covered by a university is taken into account when distributing the financial allocations. For example, the Open University, all of its faculties at one location; while the Tripoli University covers several branches, it means is a sprawling.” (G6).

“As well as, the distribution of faculties; there is a difference between a university that its faculties exist on the same campus, and another

university its faculties are spaced. Thus, this factor is taken into the government consideration when distributing the funds.” (G1).

This corresponded with the findings of a number of exiting studies (Agasisti & Haelermans, 2016; Ahmad et al., 2012; Chandrasiri, 2003; Federico, 2012). These studies found that higher education institutions in most countries are typically funded through negotiated budgets that focus on input, such as the number of students enrolled. On the other hand, in some instances both input and outputs indicators are used for identifying the allocations for universities, particularly in the European countries (European Commission, 2010).

6.5.2.3 The importance of universities for the government

Some participants have revealed a new factor that surprised the researcher, but which is used by the government as a support for other criteria; the criterion is the importance of the university to the government. It seems that the government does not consider all public universities to be of equal standing. This means there are particular universities that have special, or at least preferential, consideration. There are some political and protocol considerations that effect government decisions for the allocation of financial resources for universities. For example, the government attempts to make specific universities appear as if they are of a high level, especially when political and international delegates tend to visit such universities; thus, these universities obtain a greater share of government financial resources. This can be inferred from the statement of a senior management member of University (U3), who stated that:

“As well as, I think that the importance of university of the government is one of the criteria used. For example, the University of Tripoli as the capital’s university, which they regard as a model of the Libyan universities. Also, when there are formal foreign visitors or delegations from other countries or from international organisations, they will visit this university. Certainly, the government will take into account this aspect when allocating the financial resources. Also, the University of Benghazi as the second-largest city and the capital of the East.” (U3).

A member of senior management at one of the universities that receives special attention from the government confirmed this by saying:

“[...], and the importance of university, for example, our university as the capital's university and the largest university in Libya; hence there is a recommendation from the government for interest in it. Such the special attention from the government because of the government

headquarters in Tripoli; thus, our university is a destination of the government's visitors [...], this feature gives us support to obtain a good government allocation.” (U4).

The researcher has concluded that the criterion of importance of a university to the government could be a factor used by the government to achieve certain political purposes. The findings in the current study concur with what has been achieved in previous studies concerning the existence of political influence affecting the adoption of the negotiation approach. For instance, the results of Ziderman (2016), who argued that in many countries, particularly developing ones, within the negotiation-based approaches, the allocation of financial recourses is adopted largely on the basis of political criteria. Moreover, it is consistent with the findings of studies conducted by (Experton & Fevre, 2010; Jongbloed, 2010), who found that the final amount resulting from negotiations is influenced by political considerations. However, Salmi and Hauptman (2006a) argued that if allocations are awarded to universities depending more on political considerations than on institutions goals then the aims of improved institutions efficiency are not well served. Due to the challenges associated with the negotiations budget, several scholars (e.g. Experton & Fevre, 2010; Jongbloed, 2010; Salmi & Hauptman, 2006a) recommended countries to evolve their funding methodologies and move from the traditional budget negotiations to sophisticated formulae of financing aimed to insulate decisions of financial allocation from political pressures. The use of negotiation, as an approach, for identifying financial resources, will result in criticism on the government's decisions. Since, the negotiation approach lacks facts and figures, whilst depending on the convincing ability of the negotiators. Such decisions could have an influence of the surrounding political and social factors.

As mentioned earlier, the criteria used for assigning the government allocations vary depending on the type of expenditure. The participants' responses revealed that along with the above criteria, there is an additional criterion used specifically for development expenses, which is the completion percentage of development projects. This criterion will be addressed within the following sections.

6.5.2.4 The completion percentage of developmental projects

The completion percentage of projects is one of the criteria used by government authorities concerning the distribution of its allocations for development budget, unlike the administrative budget. Moreover, this type of criterion is used when a project requires

more than one stage to reach completion. It is worth considering how the government agencies can identify such a percentage.

Based on comments by the interviewees and the related documents, the principal indicator determining the percentage of project completion is the follow-up report. Such a report includes a list of the university's projects, the amounts allocated to each project, the completion percentage of each project, and the remaining commitment to each project. A senior official at the Planning Ministry pointed to the role of the follow-up reports as an indicator of an executive situation of projects. He revealed that:

“The follow-up reports required from the universities provide us with an indicator on the projects which their achievement proportions are going rapidly.” (G3).

He also added further details about the report and its components when he stated that:

“Regarding completion percentage, the projects are divided into five types: projects that have been fully completed and remaining have a financial obligation; projects under implementation with various completion percentage; new projects; suspended projects; excluded projects. (G3).

The Ministry of Planning pursues a particular policy in the distribution of financial allocations to the universities with regards to development projects. The applicable policy gives priority in the resource allocation to projects that have already completed with a financial commitment, and then the projects with a high percentage of completion. Pursuing this policy to get rid of as many as possible of the existing commitments on the completed projects; or which are about to be completed, in order that the university is able to take advantage of them. Based on the participants' responses that indicated that the percentage of project completion is the most important aspect regarding developmental allocations to universities. The majority of interviewees believe that the Ministry of Planning pays more consideration to the projects with high rates of completion in order to make use of these projects after paying the whole of their dues. For instance, one senior management member at University (U6) elaborated this:

Also, the Ministry of Planning has a certain strategy with regards to financing the development projects. The strategy recommends that the need to dispose of the commitments first by first” (U6).

A senior official from the Ministry of Planning provided some further explanation about the policy pursued by this ministry with respect to the distribution of developmental allocations to universities; regarding this, a senior management member at the Ministry of Planning made the following statement:

“In fact, the Planning Ministry has a particular policy for development projects funding. The policy requires that the necessary to end the commitments on the completed project, [...]; also, the projects with a high percentage of completion should pay their obligations to take advantage of their services. The remaining of available resources, a university can establish new projects accordance with its vision.” (G3).

He added the justification underlying this policy by stating:

“In fact, the reason for the focus within our priority on projects that is approaching the end; in order to terminate those projects and to give a chance to other ones.” (G3).

The inadequacy of the available financial allocations, to need requests of all Libyan universities, might be left the government to use such criterion for resource distribution. Additionally, it provides relief to the government, from accumulation of obligations over the state. However, the implementation of these criteria might lead to a reduction of an independence of the universities to implement its projects. Nevertheless, earlier studies addressed many criteria for distributing government allocations across the world. To the best of the researcher’s knowledge, no existing studies addressed whether the percentage of project completion is one of the criteria used for distributing governmental financial allocation among public universities. Consequently, the researcher **considers this result as one of the contributions of this research.** This is also new in terms of the distribution of the governmental financial allocation among public universities in the Libyan context. Such a finding might help Libyan authorities to evaluate the policy and regulations relevant findings universities.

It is worth reiterating that the respondents revealed various problems associated with allocation of government funding to universities; such examples only provided flashes and samples of the challenges faced by universities. However, given the importance and complexity of such challenges, it is important to address these challenges and other associated aspects in greater detail to get an in-depth understanding. Thus, section (6.8) has been assigned to investigate these challenges in detail.

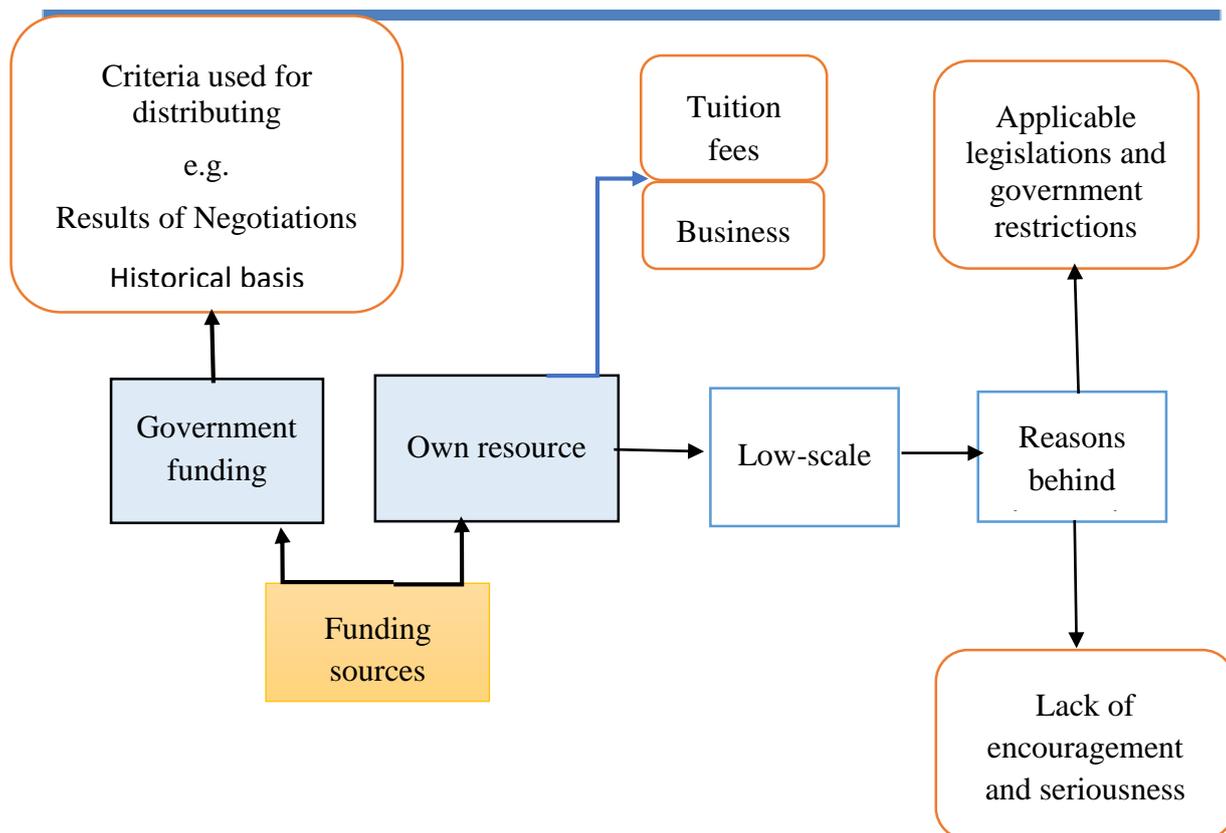


Figure 6-1: funding sources and criteria used for distribution

In summary, the government allocation is mostly based on the criteria of the negotiation results and the historical basis in distributing resources among universities and for all types of expenses (salaries, administrative, and development), despite the existence of differences, to some extent, in the nature of such negotiations. The administrative expenses are more complicated because they contain many items, on the one hand, and they lack the constants that that determination of the allocation of several items can be based upon, on the other. The development allocations, the negotiations conducted through several sessions with the Ministry of Planning; unlike other types of distributions where negotiations are conducted in a single session with the Ministry of Finance. Furthermore, there is the historical basis, which is an essential part of the negotiation process. The historical basis depends mainly on what was actually spent in the previous year, not on what had been allocated. Additionally, the input formula is one of the criteria used as an essential reference in determining government allocations to universities. The inputs include the number of students, the number of employees, academic departments,

faculties, and others. However, the developmental allocations have a specific additional criterion, which is the completion percentages of development projects.

6.6 Government intervention motivations

This section debates the perspectives of different interviewees concerning the government intervention on funding provision for public universities. Various viewpoints were presented concerning the justification for government intervention. During the interviews, the participants were asked about the reasons for government intervention and the dominance of funding of the Libyan public universities. The questions which address this issue are contained in the interview guide in Appendix (6) (see question 5); the question was, “*In your opinion, why do you think government funds universities?*” Therefore, upon participants’ answers, there are several motives, which may overlap somewhat. The motives have been classified into three main groups: economic, social, and political purposes

6.6.1 Economic motivations

This section aims to explore and discuss views of senior university officials and government about the reasons underlying the government funding, which is related to economic aspects. There was a consensus between both perspectives, and then such perspectives are divided into three subsections: human development, the Libyan economic situation, and the cost of university education.

The results of the interviews indicated that almost all the interviewees acknowledged that the Libyan Government wants to meet the workforce demands of the country through the training of students at higher education levels, as well as creating the economic and social development to ensure Libya’s competitiveness in the global economy. For instance, a senior official from the Ministry of Finance and one a senior management member of a university illustrated this trend, respectively, as follows:

“[...] the government also funds universities for qualifying people to be professors, engineers, doctors, and others; in order to serve the community and to promote economic development.” (G8).

A respondent from the university officials supported the previous perspective and added that the government supports universities compensating the Libyan people for the difficult long period of foreign occupation and before the discovery of the oil, which was

associated with deprivation, poverty, and illiteracy. An interviewee summed this up in the following statements:

“[...] Libya passed through hard times before the independence and before the oil discovery. During that period Libya was one of the poorest countries in the world. Thus, the Libyan people were deprived from the opportunity of education, and, therefore, the government has acknowledged its responsibility for educating people to compensate them; also, in order to build human capital in view of the suffering of the people of illiteracy. And therefore, the society needs this educated category to lead development process of all types.” (U1).

Furthermore, the government policy towards higher education is adopting the same trend, whereby it seeks to provide the relevant qualified human resources necessary for the development of the country. This is what was mentioned in article 2-B in the law of education for 2010:

“Providing the state with the scientific capacities and specialised professional and preparing them to contribute to the advancement of society and serve its orientations.” (Education Law No10 /2010).

Within the same context, considering that the universities are one of the institutions of higher education, they are therefore subject to the Ministry of Higher Education with respect to their decisions and plans. The higher education plan 2015 indicated that the government is continuing its financial support of universities to prepare human resources and qualified personnel according to the state policy and introduce disciplines necessary for the labour market needs. This opinion was reinforced by the Ministry of Higher Education's 2015 vision:

“Promotion and development of the higher education and scientific research sector is essential to be able to prepare qualified graduated cadres who are able to meet the different needs of the productive and service organisations for economic, scientific, artistic, social, political, cultural and administrative activities. It also provides academic and applied qualifications to resolve development problems and its associated issues to meet current and future the society needs.” (HE plan 2015).

Regarding with the Libyan economic situation, by the end of the 1950s, after discovering and marketing oil, the Libyan economy changed from being one of the poorest countries to one of the richest economically (Alafi & Bruijn, 2010). Concerning the issue of the economic situation, there were several interviewees who linked the government support of universities with the fact that Libya depends mainly on oil revenue as its major source of national income. Their perspectives were that the government funding to universities is a part of the income distribution among the Libyans. For instance, a senior management member of (U2) University explained this trend as follows:

“The Libyan economy is not based on tax revenues such as other countries, but depends on the sale of oil which is owned by all Libyans, and therefore, this income should be profited by all Libyans. [...], I think the government funds universities as a part of the equity of the income distribution.” (U2).

This view was reinforced by a comment made by another participant who confirmed, with their further explanation:

Besides, considering that the government relies on the oil sale to obtain revenue. Also, a citizen believes that the government is rich and, it necessary to educate his sons.” (G8).

Another reason relates to economic aspect, and underlying the government funding is the high cost of university education on the one hand and the inadequacy of the own resources of the universities on the other hand. Consequently, the universities would be unable to fund themselves without government support; both the government and university officials shared this view. For instance, a senior management member of University (U11) clearly referred to this point as follows:

“Indeed, due to the high cost of university education, it is difficult that the universities are able to finance themselves” (U11).

This opinion was reinforced by a comment made by one of the senior officials of the Ministry of Finance; the respondent revealed that there are universities that are still new in generating income activities, unlike other universities that have enough experience in joining such activities. Hence, according to his perspective, the government is concerned with the emerging universities which might be unable to fund themselves. As an expression of the government’s views about this issue, he revealed that:

“The reason for the government's hesitation to allow the universities to finance themselves because the government is worried concerning the emerging (emerging) universities that would be not able to do so; because they do not have the facilities and a sufficient experience to enable to finance themselves. (G5).

As mentioned at the beginning of the above section, participants’ responses overlapped to some extent concerning the government purposes for university funding; this finding is not unique, and is consistent with the results from previous studies (OECD, 2008b; Toutkoushian & Shafiq, 2010) who concluded that underlying motivations behind government funding are varied and overlapping

Concerning the economic justifications, the majority of the participants and documents relevant shared the perception that the government is seeking to achieve human development through improving knowledge, skills, competencies, which creates added value to contribute to the economic development and sustainability of society. This is in line with what the literature indicates about higher education’s contribution to economic development. This findings of this study are in agreement with earlier studies that have analysed the role of higher education in economic development, such as (Pinheiro & Pillay, 2016), which concluded that government investment in higher education has a great role in economic development. A study conducted by (Boztosun et al., 2016) revealed a dual causality relationship between economic growth variables and human capital. Moreover, the findings of this study are consistent with the study by (Ljungberg & Nilsson, 2009), who observed that human capital had a significant positive effect on economic growth.

Recently, another study conducted by (Lilles & Rõigas, 2017) shows that institutions of higher education contribute to regional economic development and the creation of human capital and knowledge. Moreover, the current results also concur with other studies (Bashir et al., 2012; Gary S Becker et al., 1990; Co-operation & Development, 2010) which concluded that investment in higher education leads to increased skills, improved productively, and which in turn enhance economic development.

The results obtained from this study were also consistent with human capital theory, which argues that there are economic gains that can be realised through investment in people; also, the theory maintains that economic development can be achieved by a

productive workforce education (Hanushek & Woessmann, 2008; Schultz, 1961; Xiao & Lo, 2003) (Mankiw, Romer, & Weil, 1992; Oketch, 2016). The literature also confirms that, theoretically, through human capita, any country that aspires to develop the well-being of its citizens should therefore take its investment in human capital seriously.

The issue of university education cost is associated with the extent of the student's ability to afford the cost of their study. Such an increase may be curtailing access by people from a disadvantaged background. Therefore, the government seeks to ensure that all students are able to enrol in universities, regardless their financial abilities. This is a matter of social responsibility of the government towards its people, which will be addressed in the following sections.

6.6.2 Social responsibility

Considering that university funding is a social responsibility, and many people might not be in a position to pay the full cost of a university education, particularly where the cost of such an education is high, and in light of declining living standards in Libya as well. Therefore, the state support in higher education is necessary to promote access to study at university. Several interviewees argued that the government justify its intervention as that of financial support because of its concern over the issue of students from disadvantaged family backgrounds who have a much lower probability of entering university. For instance, one member of the Parliament and one senior official from the Ministry of Finance both voiced such concern, respectively:

“A significant percentage of Libyans' incomes are insufficient to pay the tuition fees for studying their sons at universities. This would deprive a large proportion to enrol within universities due to their inability to pay the tuition fees especially with the high cost of university education.” (G2).

“[...] on the other hand, as a social responsibility of the government because it is expected that there are segments of the society will be deprived enrol universities.” (G5).

There were several respondents who agreed that the motivation for government support to universities is for the purpose of playing a crucial role in both producing and distributing human capital resources, by acquiring skills and knowledge as a major factor in promoting economic development and eradicating poverty. In addition to this, this financial support comes as a part of government duties to serve its citizens, and as mirror

of a fatherly role. The following are two examples from the government and universities' perspectives, as follows:

"It is a matter of a fatherhood care, is it logic when your son is sponsored by your neighbour; it is one of the rights of the citizen, which means that the state must educate its sons." (G6).

The government has a duty towards their citizens by providing health and educational services and offering security and safety to them." (G8).

Another participant from universities group confirmed the previous comments, and explained the situation by using an example concerning the health care in the UK (NHS), by commenting:

The education in general including higher education as one of the essential needs of the individuals, such as health care. Thus, it is the state's duty to fund education, as it happens in the UK through the health care system (NHS)." (U1-2).

These findings are in line with earlier studies' arguments (Barr, 2003; De Villiers & Ntshoe, 2013; Goksu & Goksu, 2015) which concluded that the government support of higher education could lead the market to a more equitable position concerning the provision of educational opportunities to all citizens. Thus, they believe that government support is actually a means of rectifying inefficiencies, inequities, or failures in the market for higher education.

Moreover, various studies (e.g. Barr, 2004b; Cardoso & dos Santos, 2011; Goksu & Goksu, 2015; Jongbloed, 2008; OECD, 2008b) found that governments have to intervene and support higher education directly, or by offering government's guarantees to ensure payment to lenders in case a student fails to repay their loan. All this aimed at not depriving a category of people from continuing their university education because of financial destitution, which was disclosed through this study. However, the findings are inconsistent to some extent with the perspective of Barr (2004b) who believes that "equity objective is not free higher education, but a system in which no bright person is denied a place because he or she comes from a disadvantaged background" (P. 266). Libyans have free education since independence, so it is difficult to move into paid education, specifically in a sudden short period. Libyans have believed that education has always be free, without thinking about the current situation of the country.

6.6.3 Political motives

The underlying causes behind the government support for universities were not confined to the development of human resources in contributing to economic development. Also, it is not limited to the state meeting its social responsibility towards its people, with regards to equality in the enrolment of students in universities, especially in the light of the high cost of university education. Therefore, based on the responses of interviewees, some believed that there were some other reasons for the government intervention other than the previous reasons. They argue that the pursuit of obtaining political and security advantages through controlling and influencing these vital institutions is one of the government's purposes in its support of universities. For example, a senior management member from (U8) University believed that the government does not have a clear economic goal to achieve behind its funding universities, but rather the purpose of its support is completely political. He attributed this to the retardation of society and the fear of the students' reactions. The interviewee summed this up in the following statements:

“I have a conviction that this issue is more political than economic or developmental, because the Arab societies are still undeveloped, and they still have fear from universities. As they say (carrot and stick), it means that the government finances universities when they want and suspend it when they want. The government considers that what it gives to universities is a gratuity. The issues involving students are the most serious concern for the government, especially the Arab ones. Therefore, we conclude that it is a purely political issue.” (U8).

The participant wants to confirm his perspective by adding that if the government has another purpose other than political goals; why then it does not give the universities full autonomy to finance themselves; but this intention is not available through the government restrictions over the universities. This is how the participant worded it:

“If the reason was not political, why the government did not provide universities with the freedom to finance themselves. The government is able to easily decide that, the matter does not need more than specific legislation approval and it ends.” (U8).

In the same vein, some interviewees raised another aspect related to political motivation, which is the socialist ideology that prevailed for more than four decades, behind the government funding. They believed that this ideology considers that the government should fund vital sectors such as health and education. For example, a senior management

member of the (U4) University and a senior official from the Ministry of Higher Education each presented this view, respectively:

“I think that the socialist system which has prevailed in Libya for more than 40 years is one of the reasons; as well as for imposing the government control over the universities and not to provide complete freedom to determine their strategies and objectives.” (U4).

“Of course, due to the socialist mentality that was prevalent in Libya; therefore, they have their visions and goals, which they are seeking to achieve them, behind the imposition of legislation. The legislations imposed to limit the universities freedom and make the universities at the mercy of the government” (G10).

Similarly, and within the political context, when the participants were asked about the reasons underlying the government funding to universities, some mentioned that there are security issues behind government funding for universities. A senior official at the Ministry of Higher Education focused in his comment on the fear of the government from the students’ ability to contribute effectively to the political change. Also, he quoted as evidence of what happened in France during the era of Charles de Gaulle, and the former regime in Libya. He explained that:

In addition, the students always cause a headache for the government, and they represent the stream of change; students have overthrown even Charles de Gaulle in France. For this reason, the government imposes a strong security grip on universities. (G9).

The participants indicated that the underlying causes behind the government support for universities were not confined to the development of human resources to contribute to the economic development. In addition, it is not limited to the state meeting its social responsibility towards its people, concerning justice in the enrolment of students in universities, especially in light of the high cost of a university education. Therefore, there are some other reasons related to the political aspect, such as the pursuit of obtaining political and security advantages through controlling and influencing these universities being one of the government purposes in its support for universities.

This submission is consistent with the findings revealed by previous studies such as (da Costa Marques, 2015; Devarajan et al., 2011; Jongbloed, 2008, 2010) which found that government subsidisation is one of the intervention instruments in public higher education institutions. Moreover, the current findings correspond to an earlier study by

Johnstone (2009b), who concluded that there are several governments adopt particular political ideological; such ideologies argue that government should run vital organisations including institutions of higher education; besides, the government should provide funding for them, and the identifying the prices of services presented.

Therefore, the political ideology is one of the issues raised by the interviewees as a motivation for government financing. Specifically, the participants revealed that the socialist ideology, which prevailed for more than four decades in Libya, is behind the government funding. They believed that this ideology considers that the government should fund vital sectors such as health and education. These findings agreed with Barr (2004a) results, which revealed that one of the political ideologies is that of socialism; such an ideology believes that to achieve the central government's responsibility of equality and freedom in higher education, the government should fund the institutions. Likewise, he mentioned that the socialists believed that the production and financing of higher education should be under government control (Barr, 2004a). Moreover, the findings are consistent with the results of (Nagy et al., 2014) study where countries influenced by the socialist ideology believed that governments should restrict the involvement of students in bearing the costs of higher education.

Nevertheless, another study conducted by Fuhui Li (2016) concluded that although China adopts the socialist ideology, the government is continuing to encourage the private sector to increase its investment in higher education.

Similarly, and in line with the political context, some participants attributed the government funding of public universities to security issues, where the government fears that the students have the ability to contribute effectively to political change, so it wants to set the universities under its control. These findings are consistent with a number of studies (Balsvik, 1998; Renton, 2009).

In summary, the respondent showed a greater understanding of the motivations underlying the government funding for universities. The universities are funded mainly by the government for economic development in the first place, through the development of human capital. Moreover, the government has another purpose behind its funding, which is to avoid depriving low-income people of access the universities. This is a kind of social responsibility towards its people, as well as a means of gaining a political and security advantages for the government.

6.7 Factors influencing the allocation of financial resources to universities

The Libyan working environment is influenced by a wide range of different elements. In general, those factors that affect Libyan decision making have arisen from the Libyan economic socio-cultural and political environments. Thus, this section examines the factors affecting the distribution of resource allocations to universities. The researcher faced difficulties in dividing such factors into groups because of overlapping among the relevant issues.

However, an attempt has been made to present some of these influences under the three principal categories outlined, which are economic, social, and political factors. It is important to highlight unrest within Libya regarding the conflict that began in mid-February 2011; in particular, it has been noted that this unrest had economic, social, and political implications. The data analysis regarding the influencing factors introduced in this research depends on the proposed research question and the objective the researcher wishes to achieve.

The questions which address this issue are contained in the interview guide in Appendix (6) (See question 6). The aim of the question was to investigate and explore the question: what are the economic, social, political and other factors that influence the allocation of financial resources to universities? In addition, how did they affect this? Moreover, considering the current situation of unrest, the question was: What is the extent of the impact of the current political situation in the distribution of financial allocations to universities? How? Besides, some follow up questions have been asked when the need for further clarification about a particular issue arose.

6.7.1 Economic factors

This high degree of economic dependency of such in Libya means oil production and oil price movements dominate the Libyan economy. Concerning the impact of the economic factor on financial resource allocations, the majority of participants indicated that the economic factor influences the decisions behind resource allocation to universities. For example, a senior management member from (U2) university mentioned the factors that affect this; the participant made the following statement:

“There is no doubt; the economic factor has an effect. For example, due to the budget funded by the government, so when there is a decrease in country's imports will impact the resources allocation for all sectors including Higher Education” (U2).

The participants' responses disclosed that several elements related to economic factors. The researcher believes that those aspects can be classified into three main subsections, which seem important through repetitive mention by the majority of interviewees, which are the available state resources, governmental priorities, and the instability of the economic status in Libya.

6.7.1.1 The resources available

In reference to the Libyan economy, which mainly depends on oil revenues as its source of national income, on the one hand, the universities rely on government allocations as a primary source of funding on the other. This means the economic factor has a significant influence on the distribution of financial resources to universities. The interviews revealed that there is a substantial impact of the economic factor on the allocation the financial resources. In addition, the majority of respondents on both levels (universities and government agencies) believe that the oil revenues are the influential aspect. In such an instance, two senior management members from the universities group presented a brief description respectively:

“The economic factor and economic conditions are critical factors, and they are overshadowing on all other factors. The policy makers, who decide that the general budget is 50, 60, or 70 billion, are taken into account the economic factors.” (U11).

“Well, for the economic factor, it is the most importantly effective. For example, the national revenues is the main determinant of general budget; then the question imposed now is what determines the income in Libya? In this case, you have to say that the oil; because the Libyan economy almost entirely depends on oil revenues; consequently, the economic factor is so important.” (U3).

The participants believe that any change in oil revenue, whether positive or negative, will influence the financial allocations to the universities. Moreover, there is an agreement among all respondents that the current conflict has provided clear evidence of the importance of the economic factor in terms of resource allocations to *all* sectors, including the universities. A senior management member from (U3) University provided evidence that the change in oil income has a significant influence in financial resource allocation.

He cited the example of what happened in the nineties when the international oil prices collapsed. As well as his inference of what is going on due to the current conflict. He commented that:

I give you an instance, what happened in the nineties, when the oil prices collapsed, which affected the allocations of the general budget. Moreover, the current events caused a significant drop in oil exports, and what associated with a decline in oil prices to more than half. This impacted to the point that developmental budget did not allocate to the sectors entirely.” (U3).

These findings are consistent with the results shown in earlier studies (Perna et al., 2014; Sangiumvibool & Chonglertham, 2016; Weerts & Ronca, 2012) that suggest that the availability of national revenues is one of the most important influences that determines the government funding level for public higher education institutions. Similarly, these findings are in line with an earlier study conducted by (Adams, 1977), who argued that countries have to balance their budgets (income and expenditure) each year; thus, under better economic conditions, governments are able to increase their expenditure. A clearest evidence of the impact of petroleum income is, the significant reduction in government allocations to the public sector including higher education, in the last six years. This decline is due to a decrease in oil revenues that resulted from the current conflict. The financial reports revealed that the government’s expenditure on development dropped sharply from 28,903.3 in 2008 to 1,398.3 Million LYD in 2016.

6.7.1.2 The government priorities

The government has a particular policy in terms of the identifying the funding priorities among the sectors. Determining such priorities depends on economic, political, and social conditions within the country; and then the government might give priority to universities, or favour other sectors. In general, the government pays particular concern to the higher education sector. This was reported by participants from the government agencies and universities. For example, regarding the government’s attention for universities, a senior official in the Planning Ministry argued that:

“Concerning the distribution of the allocations among sectors; in general, the importance of a sector plays an essential role in giving priority to this sector or other. This means whenever the sector was necessary for the society its allocations would receive more attention. For example, the education sectors whether higher education or

general education is considered as one of the essential sectors; thus, it enjoys a larger share in all development plans [...]. My words do not mean that the other sectors have no importance, but I mean less important than education.” (G4).

In the same context, a senior official from the Ministry of Finance and a senior management member from (U9) University provided evidence that clarified that the government sometimes directs the spending for solving a particular problem into one of the sectors, sometimes on account of other sectors. In this regard, they stated that, respectively:

“As for the political side, sometimes the value of allocations depends on the government orientation concerning the spending. For example, in 2006, the government tended to solve the housing crisis; thus, the housing sector obtained the lion's share of the budget. Therefore, this policy will certainly be at the expense of other sectors, such as education, health, security, and others.” (G6).

“[...], for example, in 2009, the former regime had a particular political orientation, which gave particular interest in the region of [...]. This orientation and the recommendation issued by the head of the regime, affected positively on the allocation of financial resources to [...] University, because it is the only university in the region of [...].” (U9).

These results are similar to a study conducted by Amy (2016) results, who revealed that government priorities and policies have an impact on governmental financial allocations to vital sectors (e.g., education, health care), and in reducing out government support for higher education. Similarly, these findings are consistent to a large extent with studies that concluded that other budgetary demands affect government support for higher education (Tandberg, 2008, 2010a; Weerts & Ronca, 2012). Nevertheless, several studies (e.g. Amy, 2016; Delaney & Doyle, 2007; Ferlie et al., 2008; Fowles, 2014) generally agree that during times of financial stress, the first category of government discretionary expenditure to receive cuts is higher education; this is because higher education is more capable and resilient to generation of its own revenues, unlike most other public organisations. Such has made higher education being known as the “balance wheel” of governments’ budgets (Fowles, 2014, p. 275).

After giving an overview of the economic factor influence, which has been inferred from the participants’ perspective, the following section address particularly several issues that emerged accompanying the current conflict in Libya and related to the economic aspects.

6.7.1.3 Instability of economic and political status in Libya

The conflict that accompanied the revolution had a severe impact on the economy, which is heavily dependent on hydrocarbons. A senior government official explained how the current conflict has affected the financial allocation to universities; concerning this he provided the following:

“Of course, we know that the budget is financed by 98% from the oil. For example, why the salaries have not allocated so far? Because of there is no financial coverage. Libya was selling 1.6 million barrels per day, today only about 400 thousand barrels and intermittently. Unfortunately, for the Libyans, even the oil prices dropped by more than half.” (G4).

Moreover, there are other sovereign revenues that contribute to the total national revenues; for instance, various taxes, customs, port and airport fees, commercial and industrial fees, and other taxes and fees. All these revenues have been affected due to current events. The poor security conditions that made the government institutions incapable of collecting their income and punishing the evaders contributed to the decline in those revenues. Moreover, the deterioration of economic activities has correspondingly decreased the national income due to the reduction in the related revenue. For instance, a senior management member at the (U7) University attributed the cause of the government’s inability to implement the applicable legislations with regard the revenues collection to the security vacuum associated with the current conflict. He commented that:

The impact of the current political situation has a direct influence, regarding the state's resources [...], not only on oil revenue but on the tax income as well. The government cannot impose its control due to the security vacuum, and the presence of armed militias which cannot impose the law on them.” (U7).

The current unrest, led to a decline in the level of national revenue, leaving the government unable, to meet the sectors' needs. Therefore, the government was obliged to take some steps for alleviating this issue. The most important measures taken were to pursue a policy of pressure over expenditure, whether recurrent or development expenses. For example, suspending the whole development budget to several sectors, temporarily cancelling several items that were less important in the recurrent budget, etc., in addition to reducing resources allocated in general. Overall, a senior management member of University of (11) presented a general overview about the austerity followed by the

government in line with the current situation, in the example of the year 2015. He stated that:

“[...] for example, for this year, we do not expect for this year to have development budget, and the allocations are limited to the first section (salaries) because of its extreme importance. If there will be remaining allocations, they will be spent on the second section (administrative) according to the items' importance. This means that there are several items which may be deleted.” (I1).

Despite the importance of development budget in developing the universities, the government decided that the disruption of the majority of capital expenditures, because of the current conflict and as a result of the decline in available financial resources, would be least harmful. Therefore, the universities only obtained salaries and several items within the administrative budget. The following quote from a university group demonstrates the perceptions of the interviewees regarding this issue:

“[...] for the years 2014 and 2015, all universities, and even all entities across Libya were not allocated development budget, due to the crisis that experienced by the country.” (U2).

Based on the austerity policy over the expenditure, the government cancelled some of the budget items, which were not considered essential for institutional survival in accordance with the government perspective. In relation to this, a senior official at the Ministry of Finance, who is one of the actors involved in the development of these policies, made the following comment:

“In the event of any decline in revenues, the government pursues a particular policy. We resort to the other party of the budget, which is the expenses. We exercise pressure over the expenses, without causing an obstruction the university's work. Thus, a set of items can be cancelled because their existence does not have a significant impact on university survival.” (G6).

The responses and the reports indicated that the impact of current Libyan unrest, on the attitude of decision makers in the government agencies, toward the distribution of government support to public universities, is significant. The political unrest in Libya, further sensitises the stakeholders (the government, universities, and students) regarding the seriousness of dependence mainly on government funding, for which an explanation has been contributed by the present study.

Moreover, this result could relate to the impact of economic crisis on higher education funding in others countries. For instance, (UNESCO, 2012) investigated about Asian countries, that despite the increase of government allocation for higher education in 2008, the corresponding growth rate dropped to 26.2 %. It was 4.2 % lower the previous year 2007.

6.7.2 Socio-cultural factor

This subsection focuses on two main elements that have been revealed by the interviewees, namely tribal influences and social relationships. Overall, the majority of the participants, whether from universities or government agencies, indicated that the government's decisions had been affected by the external environment, and tribal and social relationships. For instance, a senior official from the Ministry of Finance, when asked about the influence of the social factor he confirmed the existence of the effect of the social factors on financial resource distribution among universities, and took multiple patterns. He considered that the social impact is part of the dominant culture. In this regard, he remarked that:

“It should not exist, but in fact, it exists, and we cannot say otherwise. The social relations such as kinship, friendship, and cronyism; which cannot be devoid of Libyan society; also, they are part of our culture, and therefore all of them affect resource allocation decisions.” (G8).

Another interviewee, but this time from within the universities group, confirmed the existence of the effect of social factors, but he believes that this is invisible and is conducted behind the scenes. Concerning this, he stated that:

“In general, the social factor in Libya plays a significant role. The social factor constitutes kinship, friendship, and others. The effect of such factor usually is unseen, but it is under the table and behind the scenes.” (U6).

As mentioned previously, different types of respondents from various positions within universities and government agencies expressed their views regarding those social factors that impact financial resources; they emphasised that the most important of these are tribal influences and personal relationships.

6.7.2.1 Tribal influences

From the interviewees' narratives, there is consistency between universities and the government agencies' perspectives, which illustrated that the tribal influence is one of the

factors that impacted decision making regarding the resource allocation to universities. For example, a senior official at the Ministry of Higher Education believes that the tribal mentality is the greatest problem facing education in Libya. He clarified his opinion as follows:

“The biggest problem experienced by the education in Libya is giving priority to tribes rather than science and logic. Therefore, tribal and regional preference instead of other factors is the destruction of modernism; thus, it definitely does not exclude its effect on the decision on determining financial resources to universities.” (G9).

Another eyewitness from the Ministry of Planning presented evidence of the influence of the tribal factor, which reached the highest levels of the government. When there are meetings for distributing development projects among the various geographic areas, the officials seek to establish those projects in an area which belongs to them. He voiced his perspective stating:

“Frankly, I cannot identify a specific factor, I do not know how I should classify them, could be the effect of tribal and regional, or otherwise. Sometimes, altercations occur among ministers during the meetings of the council of ministers when discuss establishing some development projects. Those altercations are not for the projects’ feasibility, but because of tribal and regional influence, to which this minister belongs or not” (G4).

This example was reinforced by a comment made by another interviewee who believes that the tribal affiliation imposes pressure on government officials to pay more attention to certain universities than others. He claimed that:

“There is no doubt that the social factor is existing. For example, a particular minister or even a member of the finance committee who is from a particular area would have an ability to influence by exploiting his position. Thus, they would seek to allocate more resources to a particular university because it is serving the region to which they belong.” (U8)

Additionally, even the establishment of universities was not excluded from the influence of tribal and regional influences. Sometimes the government makes decisions, but these informal influences hinder the government in implementing its decisions and plans. Concerning this, a senior management member from (U2) University indicated how such factors have made the government fail to implement its decision on the reduction of the number of universities. The interviewee provided an explanation of the issue as follows:

“The universities in Libya are established because of compliments and tribal pressures. There are several government studies prepared and recommended the need to reduce the universities to only five universities, but the government has been unable to execute that [...], all because of the courtesies and social influences.” (U2).

Another participant from the universities group agreed with the previous opinion, and he revealed the existence of the non-feasibility of establishing universities in some cases, due to the purpose of their establishment only being to meet regional pressure. He mentioned that:

“In addition to some of the impacts that may exercise over the higher education ministry; for example, the opening of new branches, sometimes would be in vain, this is only for pleasing a particular tribal or regional.” (U3).

At the level of government documents, the Libyan government has issued several decisions regarding restructuring its universities. For example, in 2004, according to government decision No. 118/2004, the number of universities became 12 distributed across Libya. In 2007, the government modified its decision and identified the number of universities to be 14. After that, the number reduced to 7 based on further government decisions; this was then followed by numerous other decisions in this regard. This, in line with the previous comments, confirms an instability in government decisions that might due to the impact of various factors.

In the same context, a senior management member from (U7) University presented a real problem that happened between two universities. This is in order to prove that tribal pressure can affect the implementation of the government’s decisions. The problem concerned the government decision to incorporate a set of faculties. The participant introduced this issue in detail, as follows:

The prime minister issued a decision included incorporating the faculties that located within the geographical scope of [...] city. Thus, the burden of our university became bigger than before, because the number of faculties has increased, but at the same time, the financial allocations remained the same before. The University of [...] refused to transfer the allocation related the faculties incorporated [...]. Here, we can say that the regional influence was. Such as, this from [...] city, and that from [...] city. Hence, the city [...] has stronger impact than our city; which made the influence over the officials in the government circles. The influence has made us that did not receive our appropriate

allocations; despite it is a legitimate right in accordance with all legislation.” (U7).

6.7.2.2 Personal relationships

Based on interviewees’ responses, which indicated that the social relationship is one of the factors influencing the decisions making regarding the value of government resources allocated to the universities. For instance, a senior management member of (U7) University echoes the notion, by saying:

“The allocation of resources also depends on the relationships; for example, when I know you as an official; then thus you will help me in departments of government agencies. Although, we are a public university, we need social relationships to achieve our procedures.” (U7).

According to many interviewees, a university could get more allocations if there is a good relationship between university officials and decision makers of government agencies. A senior management member from (U5) University presented a concrete example through attending the negotiations with the Ministry of Finance regarding the determination of financial allocations. He witnessed a situation reflecting the impact of friendship on the resource allocation process; the influence was that of the financial controller who is basically an employee at the Ministry of Finance, and he was appointed to the task of financial controller at a university. The participant clarified his perspective of the influence of relationship by saying:

“Indeed, I have attended the budget discussions with Ministry of Finance for several years. I noted that the financial controller has informal role in distributing allocations [...]. For example, in a particular year, the controller’s relations with the ministry employees were weak. But in another year the financial controller of the university has good relations with his colleagues at the Finance Ministry; thus, he could use his relations to influence allocations, where he could increase the allocations of our university, even by a little percentage.” (U5).

Nevertheless, in regard to the relative importance of social factor, it is notable that the significance of the factor regarding its effects on the decision – making process for the distribution of the government financial allocations. The government’s interviewees indicated that the impact of social factor, whether tribal or social relationships as weak because decision making will be by consultation among the number of members of the

financial committee. For instance, a senior official at the Ministry of Finance stated at the end of his speech about the influence of the social factor:

“[...] if we believe there is social influence such as kinship or personal relationship or so on, but its impact would be weak. Why, this is for one main reason. The financial committee does not consist of one member, who makes a decision alone; the committee consists of some members, sometimes reaches ten people; directors of departments, experts, and others. Each member of the committee has an independent opinion; thus, there will be a balance and fairness in distributing the allocations; even there is an influence, it will be very simple.” (G5).

Regarding the previous studies related to social factors, as mentioned in section (4.7), a set of prior studies (e.g. Dar, 2012; Dar, 2015; C. Jensen, 2011; Nooruddin & Simmons, 2006; Sanz & Velázquez, 2007) have attempted to examine the impact of political factors on government higher education allocations. Other studies (Amy, 2016; Ness & Tandberg, 2013; Perna et al., 2014; Tandberg & Ness, 2011) have investigated the influence of political and economic factors on government financial allocation to higher education institutions. The third group in the study (Dreher, 2006; Dreher et al., 2008; Michael K McLendon et al., 2011) focussed on the effects of mixed factors (globalisation, demographic). However, social factors have not been taken into consideration as factors influencing the decision as to government resources allocation to higher education institutions.

Therefore, and as to the best of the researcher’s knowledge, the influence of social factors on government financial allocation to public universities has not previously been investigated. Consequently, the researcher considers this result **as one of the contributions to this research**. Such a finding contributes to the knowledge and adds something new in terms of government allocation. It also might help Libyan authorities to evaluate the decision concerning distribution of the government allocations to public entities including universities. Moreover, other countries can take advantage of these results, especially developing countries.

Despite developments in most areas of life, the Libyan society remains fundamentally traditional and consists of the main social elements based on family, tribe, clan, and village; thus, the people have a loyalty to their kin, tribe, and region that is stronger than allegiance to other aspects (Hajjaji, 2012; Tarhoni, 2011). This reason might be one

reason underlying the existence of the influence of tribal and personal relationships within the factors affecting the government allocation to public universities.

6.7.3 Political factors

The following sections highlight the participants' responses and then evaluate such results in the light of the previous relevant literature. Several factors can be included under the political factors group: legislation and government restrictions, government interventions, political clout, government pressures, and others, in addition to the accompanying aspects of the current unrest that themselves fall under political factors.

In general, these findings are consistent with a study by Perna et al. (2014), who argued that several aspects associated with political systems may affect the government funding decisions for higher education, such as legislative professionalism, party affiliation of the governor, political ideology, gubernatorial power, party control of the legislature, and electoral competition.

6.7.3.1 Government intervention

The majority of universities and government participants revealed the existence of government intervention regarding the financial allocation. A senior official from the Ministry of Finance confirmed that there is interference by the government in the resource allocation decisions. The following quotation describes how the allocations approved by the financial committee could be subject to change by the government during the budget adoption stage. Regarding such intervention, the official mentioned, in details:

“Indeed, the social and political factor has an impact on resources distribution. We are as a financial committee discusses the estimates submitted by public entities. [...] after that, the financial figures (results of negotiations) are forward to the Minister of Finance, who transfers them to the Prime Minister for preparing the final draft of the budget. The next step, it is moved to legislative authority for approval and for issuing the budget law. To be Frank, [...], sometimes we are surprised because of that those figures that have been provided by us, have been changed. [...]. Such changes occur due to the intervention by the government or the legislature; this could happen in order to favour a particular region or for passing a certain policy. We don't know!” (G7).

A senior official from the Ministry of Planning mentioned another example when he narrated a story concerning the establishment of a particular government university. This is what the official had to say, whilst he was clearly frustrated regarding the government interference in the ministries affairs. The interviewee stated bitterly that:

“Yes, the political factor has an effect as well. I think this example is the best proof. Here is a real instance despite its bitterness, but this is the reality. In 2013, we received a decision regarding to establishing a new university in [...] region. Notwithstanding the presence of a university in the former known [...]. The city where is the university is a small and with low- density cities population. The decision for establishing the university was accompanied by an oral recommendation from the Prime Minister.” G3.

A legislature member answered the question concerning the factors influencing the distribution of financial allocation to universities; he highlighted a new issue as a cause for government intervention, which is the national unity of the country, as he put it he stated that:

“You have an example, as we mentioned earlier that the allocations of university [...] outweigh the allocations to [...] University, despite its less number of students. The reason in this case for pleasing [...] city and behind it a political cause, which is for the sake of the national unity. The county of [...] including [...] have a sense that the government marginalises them. Therefore, they allocated them more for kind of appeasement.” (G2).

Concerning the relevant literature, the findings of this study are consistent with several studies in terms of noting that there is government intervention whilst making decisions regarding the allocation of financial resources to universities. For example, a study conducted by Tandberg and Ness (2011), which concluded that several factors significantly affect the decision making concerning state capital allocations to higher education institutions; the factors are political culture, competition of electorate, legislative professionalism, interest groups, voter turnout, budgetary powers of the governor, and higher education governance structures. Another aspect of political influence is the political ideology. Moreover, a study by Potrafke (2011b) revealed that right-wing governments expend more on universities, whereas leftist governments show very slightly increased public spending for higher education institutions. However, the current findings are inconsistent with a study conducted in Thailand by Sangiumvibool

and Chonglertham (2016) which indicated that political influence is not a statistically significant factor in budgeting decisions for higher education institutions.

Therefore, the findings are consistent with results of several studies (Boland et al., 2008; Gonzalez et al., 2009; Levy, 2006; Townley, 1997), which concluded that public agencies, such as public universities, that are financed by the government can expect to be subject to political pressures. Notably, a study (World Bank, 2000, p. 63) conducted by UNESCO and the World Bank into higher education in developing countries states that:

“The tendency of politicians to intervene in higher education left many institutions hostage to factional policies, with decisions on student selection, faculty appointments and promotions, curriculum design, and similar matters being made on political grounds rather than on merit. In addition, many country leaders undoubtedly saw universities as sources of political danger, with students playing a relatively active political role. Governments may fear students because they know that these young people could, under certain circumstances, overthrow a regime.”

The findings also are in line with resource dependence theory, which supposes that organisations that receive their finance from a single source will be significantly dependent on that supplier, and such dependence might exercise great impact on those organisations (Pfeffer & Salancik, 1978; Pfeffer & Salancik, 2003).

6.7.3.2 Exploitation of political influence

One of the issues raised by interviewees is the influence that comes from political clout. For instance, some officials exploit their special relationship, whether kinships or friendship with the ruling authority and, therefore, they use such influence on the decision makers to bias decisions in their favour. This was mentioned by several interviewees from universities perspectives when they cited the case of one of the public universities in which the president was the nephew of the former president of Libya. As a consequence of exploiting this relationship, his university got significant allocations, unlike other universities. A senior management member from University (U2) presented this instance as follows:

“[...], for example, the president of the University [...] was a nephew of President Gaddafi; therefore, due to the political clout will receive

the allocations requested. Also, I can say that he was able to dismiss the minister if he did not fulfil his requests.” (U2).

However, at other times, the political influence might take another pattern, which is abusing public office to achieve certain purposes. Some officials in government agencies or members of the legislative authority exploit their positions and their power to exercise influence over the decision makers in charge to biasing towards a particular university rather than others, or rather than do what is right, which is confirmed by many interviewees from universities and government agencies as well. The following quotes from a senior official from the Ministry of Finance and a senior management member from University (U11) are observed this issue as follows:

“In fact, there are interventions and recommendations in favour a particular entity without another. The legislative power intervenes in some cases through imposing pressure on the government, and it recommends increasing a certain amount to this entity or that. The reason behind that could be political, social or regional.” (G5).

“The political pressure such as which occurs on the Ministry of Higher Education; for example, a particular region has an active representative in the legislature, this member can exercise pressure on the minister in one way or another for increasing allocations to a university which located in the region where he lives.” (U11).

There is a complete lack of studies addressing informal influence on resource allocation to higher education. These findings concur with the findings of (Sangiumvibool & Chonglertham, 2016), who revealed that some members of the legislative authority, who also are members of a university’s executive at the same time, may exert influence on decisions makers. However, concerning another sector, the result of this study is consistent with a study by Bercoff and Meloni (2009) which conducted studies on the factors impacting the distribution of federal funds among provinces in Argentina. The study found that the capital expenditures distribution is affected by presidents’ pressure who favour allocating more funds to their home provinces and provinces administered by governors affiliated with their parties. Moreover, it could be the nature of Libyan society has a role in allowing this kind of influence to exist.

The level of political stability is one of the factors influencing decision making concerning the resource allocations; not only for universities, but also for all sectors in the Libyan context. This argument reflects the perspective of several participants. For

example, a senior management member of the University (11) argued that the political situation influences financial resource distribution. His comment was:

“The political situation and the government trends pursued, certainly have an impact on the allocation of financial resources. Starting with expenditure priorities, the extent of political stability; because the instability will certainly affect the economic and social factors.”

The above quotation can be considered entrance beginning to clarifying the relationship between government decisions related to allocating financial resources and prevailing political conditions. With the 2011 uprisings and the fall of Gaddafi’s regime, Libya has experienced the radical transformation of its political system with significant social and economic changes in the state and society. This issue led the researcher to investigate the impact of the current situation on financial resource allocation to universities.

6.7.3.3 Political instability in Libya

The Libyan political unrest has had various impacts; economic, social, security, and other aspects of life have been drastically affected. Although the level of the associated influence varies from an aspect to other, there is sometimes an overlap. The participants’ responses highlighted that the current conflict generates various negative issues such as the deterioration of security conditions, the weakness of the government’s performance, increased exploitation of political influence, and other challenges. For example, a senior management member of (U8) University clarified that the current conflict has increased the impact of political influence on the ability of officials to make decisions, unlike the period before the revolution. Regarding such an issue, he claimed that:

“Well, the political factor has already existed during the previous regime, but it was simple. The official was able to make courageous decisions and had the ability to implement. Unfortunately, because of the current conflict, the severity of impact has increased. [...], even a minister became has not an ability to exercise his power.” (U8).

Furthermore, in terms of the security conditions, the ongoing conflict leads to a worsening in the security stance at the universities. As a result, the universities have become obliged to deal with armed militias to provide security for the students and faculty members. This service is not free of charge, and the universities are being forced to pay for it and its allocation. A senior management member presented an explanation for this; he explained that:

In addition to that, the current conditions have made the university spend amounts for solving certain problems. For example, due to the poor security situation, the university was compelled to deal with one of the armed battalions to maintain security in the university's head office and faculties. Thus, the university has to the salaries to such people from its allocations, which led to increasing the burden over the university.” (U5).

For confirmation of the weakness of security in universities, and how this issue creates various pressures for the decisions makers whilst practicing their powers. A senior management member at University of (U8) recounted a story that happened to his friend, a university official, who was kidnapped by an armed group who pressurised him to be biased in his decision regarding a particular issue. The story was:

“Here this is a realistic story. My friend was a senior official in one of the universities. He was in charge of a specific committee to evaluate specific files. While he was doing his job in all transparency and without bias, an armed group attended and they had kidnapped him to force him to bias to a particular file. After that, he submitted his resignation immediately and refused to comply with their demands.” (U8).

Government officials have a similar perspective to that of universities’ opinions regarding the security vacuum resulting from the current conflict in that it has impacted negatively on the sovereignty of state institutions and their abilities to do their tasks. This weakness gives citizens the chance to evade fulfilling their duties to the government. Regarding this issue, a senior official at the Ministry of Finance noted:

“[...], in addition, the citizens are not committed to pay taxes because of the weakness the government agencies, and their inability to follow up and punish the violators.” (G7).

The responses indicated that the current conflict is one of the principal causes that has led to the increased burden on the public treasury. For example, there are additional appointments in the public sector including the universities; despite, sometimes, there being no need for those employees. A senior management member at University (U10) was speaking about this issue, and he seemed dissatisfied with what was happening at his university as a result of the Libyan unrest, referring to how the government imposed an increase in employees without identifying the benefits. He commented that:

“Although we are not in need to increase the staff, the ministry has exercised pressure that we should accede to accept extra staff. As a matter of alleviating the tension prevailing in the street, and to contribute to the reduction of work seekers. Concerning increasing the branches number, it is the result of the courtesy for some regions and some people, whether within the government and legislature and who belong to these areas.” (U10).

Moreover, because of the current conflict, there are a lot of public and private institutions which were exposed to the damage in varying degrees because of the ongoing conflict, including universities. Therefore, such issue has forced the government to follow an emergency policy of expenditure, through reprioritizing in accordance with the requirements of the current period. Concerning this issue, a member of parliament, a senior management member, and a senior official from the Ministry of Planning explained this issue, respectively, as follows:

“The country went through a very critical period and is accompanied by a significant destruction of the infrastructure of hospitals, schools, roads, communications, airports, and private properties. Therefore, the budget will be stressful for years, to repair, to rebuild, and compensate.” (G2).

“These conditions have forced the state to change its financing policy for the public sectors. I mean that the government has to reconsider the expenditure priorities; I expect that this contingency policy will continue for years. For example, the government is forced to repair the infrastructure that damaged as a result of the conflict; such as airports, [...], and universities Sirt and Benghazi.” (U4).

“Of course, it has a significant impact. Now the state has priorities that are different from the previous and future. Thus, the financing will be allocated in line with the current period requirements. I do not think that one will reject to it, although we wish to allocate sufficient funds to address the bottlenecks faced by the universities.” (G10).

To summarise, it is clear from the previous sections, three factors have an influence on distribution of resource allocation, are economic, social, and political. Firstly, the economic factors (e.g., the high degree of dependence on the oil revenues as a source of finance for the state budget, and the dependence of the government allocation as a primary source of income) have a significant influence on the distribution of financial resources to universities. The current conflict in the country provides a clear picture regarding the impact of such factors. As a result, the government has been obliged to take certain steps

to alleviate this issue. The most important measures taken have been to pursue a policy of pressure on expenditure, and reordering its priorities in line with the country's requirements which themselves are those immediately resulting from the implications of the crisis.

Secondly, due to nature of the Libyan society, the social factor has also been identified as a key influence on the decisions making related to allocating financial resources to universities. Concerning the impact of such a factor, the government agencies agreed with the universities about the existence of influence, though most government's participants disagreed with the strength of its influence as a social factor. Finally, the state owns the universities; thus, the political factor has also been indicated as being a significant impact on the distribution of financial allocation to universities. According to the participants' responses, political influence has several forms such as government restrictions where most result from legislation; political clout, which overlaps with the social factors in some cases; government intervention, and the issue of corruption that contributes to influencing the decision regarding resource allocation. Moreover, the political instability in Libya has increased the impact of political influence. For example, it has led to a worsening in the security stance of the universities as well rendering government agencies unable to implement their decisions.

6.8 Challenges facing higher education concerning financial aspects

As mentioned at the end of Section (6.5.2.4), the respondents revealed that there are various problems associated with government funding to universities; such examples only provided flashes and samples of challenges that face universities. Therefore, over the following sections these challenges and other associated aspects will be considered in greater detail in order to get a more in-depth understanding of them.

Concerning the government and the universities perceptions about the challenges they are facing with regards to the financial issues have to be understood. The questions that are addressed in terms of this issue are contained in the interview guide in Appendix (6) (see questions 8). Therefore, this section develops the answers these questions: *what are the challenges that face the universities concerning the financial aspects?* In general, the majority of the respondents highlighted the fact that public universities are facing multiple challenges at several levels, such as inadequate funding, inflexibility of process,

government intervention, adoption of line-item budgets, excessive bureaucracy, and others.

6.8.1 The lack of diversity in funding sources

As the Libyan universities are mainly reliant on the government as, effectively, their single source of funding, thus, the lack of funding diversity would lead to an increased government influence over the universities. One of the senior officials at the Ministry of Higher Education and a senior management member from (U11) University gave a general review of the importance of diversifying sources of funding for universities, by stating:

“[...] there is a critical point that must be mentioned, which is the diversification the funding sources for universities. One of the reasons for developing the international universities is the interest to the multiple sources of financing, and finding the alternative sources instead of government funding. The dependency only on the government source is unhealthy situation.” (G10).

“As the universities are funded by the government; thus, it has an opportunity to exercise influence and pressures on the universities, concerning decision making. Thus, it will affect the university's autonomy negatively. The government is the domination over everything due to it is convinced that the money is belonged the government.” (U11).

The above statements were corroborated by a third interviewee who clarified several aspects had been affected. The reasons underlying this are because the government gives itself the right to interfere in university affairs. A senior management member of (U8) University summed up this trend through the following comment:

“Because university dependence on a single supplier which is the government. Therefore, the government gives itself the right to appoint the professors, to appoint the university president and even the appointment of faculty's deans. [...], and many other forms of the government interventions. This confirms the impact of government on university autonomy” (U8).

However, the government's participants have a somewhat different perspective concerning the extent of the enjoyment the universities have to sufficient autonomy. They indicated that the universities are autonomous entities; they also revealed that there is no correlation between reliance on government funding and the university

autonomy. That is, as stated by a senior official at the Ministry of Finance as an example that reflects the government's point of view in this respect:

“Regarding the university autonomy, according to my point of view, that universities have adequacy autonomy. Their autonomy does not affect due to dependence on the government funding. Moreover, not allowing the universities to diversify their income sources is the result of implement the legislation; the government has nothing to with this regard. It means it is an entirely legislative issue.” (G5)

The mutual agreements between the participants indicate the lack of diversity of funding sources on the one hand, and that this increases the burden of the government on the other. Almost complete dependence on the government creates the opportunities for intervention and cooperation; despite government agencies having a somewhat different opinion.

The universities' perspective mentioned above is consistent with the results of several studies. For instance, a study by Estermann et al. (2011a), concluded that increased generation of funds from different non-government sources leads to better university autonomy. Moreover, the current findings are in line with (Etomaru et al., 2016) study, that argued that institutions that derive a majority of their income from government sources enjoy less autonomy than institutions that depend heavily on non-government sources of financing. In line with the similar results, a study conducted by the European University Association (EUA) (Estermann & Pruvot, 2011) has found that there is a positive correlation between a distribution of funding from different sources and the degree of autonomy.

Moreover, the above results are consistent from the perspective of resource dependence that supposes that organisations that receive their finance from a single source will be significantly dependent on that supplier, and such dependence might have a great impact on those organisations (Pfeffer & Salancik, 1978; Pfeffer & Salancik, 2003). However, several studies were agreed with the government perspective, in that they found that diversification of funding sources and reduced dependence on the government does not mean that institutions obtain full financial autonomy (e.g. Akalu, 2014; Etomaru et al., 2016; Lebeau & Papatsiba, 2016; Rostan, 2014).

6.8.2 Inadequacy of funding

There was considerable diversity in the perspectives of university and government agencies concerning the details of the inadequacy of funding. This is evident from the

responses of universities' interviewees who indicated that the universities do not always receive all the allocations required to cater for all the needs of each university. For instance, a senior management member at (U1) university, when asked about the strengths and weaknesses of the funding system; the answer was somewhat pessimistic. The interviewee described dealing with the government regarding the universities funding as conflict, with reference to the inadequate financial allocations granted by the government. He summed up his perspective through the following quotation:

“In my view, there are no strengths; how there are strengths and you are in a permanent conflict with the government for obtaining the funds; however, you only get less than the minimum.” (U1-2).

The above statement was corroborated by a senior management member of (U3) university, who began the conversation about the weakness of the applicable funding system by mentioning the problem of inadequate funding. Also, he stressed that insufficient funding is a permanent problem occurring every year. He stated that:

“The most significant weaknesses are that the financial resources are not enough. There is no one year that we have witnessed that they allocated to us what we asked. The best proof of inadequate funding is the apparent lack of many of the basic requirements for universities and the lack of the most basic amenities for either a professor or a student” (U3).

This opinion was reinforced by a comment made by another interviewee, who was upset because of the insufficient funding. The participant added that the inadequate funding has become an obstacle to officials being able to exercise their power. He summed this up in the following statement:

“The truth is this situation made us fed up with the position in which we are. Also, it made us think of leaving the responsibility, because I am no longer able to see the problems and unable to solve them, because of the inadequate funds.” (U1-2).

However, the government officials have different point of view about this regard. They believe that when the universities do not receive all the money that they asked for, this does not mean that the allocations are insufficient because the universities exaggerate their requests. According to the government's perspective, the best proof of the adequacy of funding is that the universities do not spend all the amounts granted to them. A senior

official from the Ministry of Finance presented a comment which mirrors what the government participants stated about this issue by stating:

“The fact, we are as a Ministry of Finance cannot deny that the funding to universities is not enough. I mean here that the funding is not sufficient compared to what required by universities, not compared with the allocations granted. Many universities have kept amounts without spending in several items.” (G5).

However, the universities’ participants indicated that the extent of spending allocations is not evidence of inadequate funding. Also, they justified the weakness of the expenses due to the extensive procedural requirements that must be followed to spend the allocations. A senior management member from university (U3) commented on the reason presented by the government as evidence of adequate funding, and he described the reason is an illogical, by mentioning:

“[...], the government think that the amounts allocated to universities are sufficient; their justification is the remaining values without spend until the end of the year. But, in my view that those reasons are illogical because of sometimes the allocation and liquefaction of amounts would be before a short period the end of the year. Therefore, it is hard to prepare the offers and complete the procedures before the end of the year. Thus, it is natural that there are remaining amounts without actual spend.” (U3).

The inadequacy of government allocations becomes a common phenomenon in many countries, regardless of the level of their development. Thus, the results of this study are similar to several earlier studies. For example, a study conducted in Zambia by (Masaiti & Shen, 2013) which found that higher education financing in the Southern African Development Countries was often inadequate. Another study by (Chandrasiri, 2003) disclosed that the budgetary allocations for institutions of higher education in Sri Lanka were inadequate. (Dao, 2015) showed that within the study’s results that finance in Vietnamese higher education also suffered from inadequate government funding.

According to what the majority of universities’ participants stated as the most significant reasons underlying the inability of universities to spend their allocations is the complexity of procedures. Given the importance of bureaucracy as a challenge facing universities, the next subsection will provide details of those challenges.

6.8.3 The bureaucracy and complexity

Bureaucracy and complexity are part of the challenges that face the funding system of public entities including the universities, and which affects the university autonomy. All of the universities' interviewees indicated that the inability of the universities to spend all allocations could be attributed to the multiplicity of stages within the spending process and the short duration between the allocations' liquefaction and the beginning of expenditure. In general, a senior management member presented the overall picture concerning the complexity of government procedures, by stating:

“Do not forget the complexities in the state procedures, due to the legislation and restrictions imposed. Such complexities make a university although it has allocations, but it does not able to spend them on time.” (U2).

In contrast, the majority of government participants indicated that the centralisation and the issue of bureaucratic procedures would disappear once the resources are allocated to universities. After that, the universities have full freedom to spend their resources as classified in the budget items. However, two senior officials from the Ministry of Finance and Ministry of Planning denied the existence of bureaucracy or that the government is pursuing centralisation; they described their opinion by saying:

“I do not think that universities suffered from bureaucracy or centralisation because each university has allocated its resources; the Ministry of Higher Education does not have authority over a university concerning the financial allocations.” (G6).

“There are those who believe that the government is pursuing centralisation. Anyone says that I tell him that you are a liar (sorry for this word). I am telling you how. Immediately after the budget issuance, then it would be issuing authorisations to universities regardless of their geographic locations. All of them have the right to spend their allocation” (G3).

Moreover, the universities' participants raised a new issue, which they believe is one of the critical challenges facing, which is related to a function of the financial controller at universities. The financial controller is one of the financial system elements for government-funded entities including universities. He basically follows the Ministry of Finance, but is appointed to undertake a controlling role in universities; as such, he will supervise and monitor all the phases of spending government allocations, and the extent of compliance with the legislations in force. Moreover, he prevents any financial

wrongdoing, and if such does happen then he reports this to the Ministry of Finance. However, in this respect, the issues raised by the interviewees from the universities group are problems and complexity associated with the work of the financial controller. They argued that the financial controller exercises several practices, which would hinder the work of universities on the one hand, and would negatively affect the university autonomy, in particular the officials being able to do conduct their work on the other hand. For example, a senior management member from (U10) University criticized the role of the financial controller, and he considered him to be a strange body at universities.

“There is a foreign body in the universities which is called a financial controller. His role is to approve the spending; this work is governed by legislation and regulations. However, this role has become the complexity of the procedures not to facilitate them or control spending.” (U10).

The above quotation was corroborated by another interviewee who pointed out that the financial controller was an obstacle to achieving university autonomy. Regarding such a problem, he mentioned that:

“Do not forget the existence of the financial controller as a body from outside the universities. He is considered a stumbling block to the autonomy of universities. Also, he became as if a president of the university. He places obstacles in the way of the university concerning spending its allocations, under the pretext of violation of the legislation.” (U4).

These findings are similar to the findings achieved in earlier studies (Cremonini et al., 2013; Salmi & Hauptman, 2006a, 2006b; Schiller & Liefner, 2007), which found that the bureaucratic restrictions and the complexity of the procedures are problems experienced by public universities, which hinder the development of the financial system; as well as universities attempt to get rid of these obstacles.

Answers regarding the inadequacy of government funding included two main relevant issues; the bureaucracy and complexity that was addressed within the previous sections, and the lack of transparency, which is discussed in the following sections.

6.8.4 Lack of transparency

There are annual cuts by the government, which have become a familiar phenomenon to which the universities have become accustomed. Drawing on his experiences to confirm

the inadequacy of government allocations to universities; a senior management member made the following comment:

“I am in this position since 2002, the government has not allocated to us what is equal to the amount requested by us, but always the allocations less than required.” (U6)

This opinion was confirmed by a comment made by another interviewee, who was unhappy regarding the government policy that is not dispersing sufficient allocations to universities. He presented a comparison between the amount allocated and the university’s needs, in order to present the proof of inadequate government appropriations. The interviewee made the following assessment:

“In general, the government allocations are nothing compared to the universities’ needs. Imagine, they allocated to us 12 million for our three branches [...], how can we distribute these allocations, the needs equal to fold times what has been allocated to us.” (U1-2).

The previous participant added a certain criticism the government justifications concerning the reasons underlying the insufficient funding. In this regard, stated that:

“The government always justifies that the state resources are insufficient to meet the needs of universities. I believe that, if the government is unable to finance the universities, it should close them because it is better than the situation experienced by the universities today, between life and death.” (U1-2).

The insufficiency of public funding is attributed to the annual government cuts for universities' estimation, and to the need for additional facilities and infrastructure to meet the continuous expansion of student enrolment. The majority of participants, whether from the government agencies or universities, indicated that the estimates submitted by the universities are subject to reduction. For instance, a senior management member clarified this aspect:

“After the discussion with the financial committee and the defence on our estimates, then the allocations will be approved for the next year. Our estimates that submitted usually subjects to reduction; sometimes, the reduction ratio reaches to 40% of the estimates provided by us.” (U5).

One of the main reasons underlying the reduction policy adopted by the government is the lack of the government trust in the estimates submitted by the universities. The universities' officials justified their overestimation in needs requested from the government because the government will not allocate them the funding they requested. For instance, a senior management member from (U2) university was completely clear in his reply by saying:

“The universities including our university have conviction, which is we should increase your estimates because we sure it will be subject to reduction. Thus, as the saying goes (you will get exactly what you need). This measure indicates the existence of mistrust between the government and us.” (U2).

The issue of the government cut for university estimates have frequently been reported. Therefore, this led the researcher to ask a follow-up question about the reasons for pursuing this policy. The question was “*what are the reasons behind the government to pursue a policy of reduction of estimates submitted by the universities?*” Many government officials' responses confirmed that the universities exaggerate their needs to obtain as much of the allocations as possible; this is the leading cause of the government cuts. For example, a senior official at the ministry of finance explained this trend by saying:

“I think that the primary cause is because the public entities including universities are submitted exaggerated and untrue estimates. They have an idea, if you need half million, you should request one million; because of if the financial committee reduced your estimates, they would not decrease more than half of the value; thus, you reach the desired.” (G5).

This point of view was reinforced by a comment made by another interviewee, who added further evidence concerning the fact that the universities are overestimating their needs. This reflects the views of many government officials, stating:

“Sometimes, the universities do not spend all their allocations because basically their claims were exaggerated. They justify their inability to spend all allocations by illogical justifications sometimes.” (G7).

The above results are in line with those that have been shown in earlier studies (Kvale & Brinkmann, 2009) who argue that the negotiation budget has been criticized as being a

non-transparent system, and the negotiation results are typically uncertain, which leaves room for questions concerning the government's decision about allocations granted.

6.8.5 The inflexibility of line-item budgets.

The budgeting system in Libya is line-item rather than block grants, in particular, the recurrent budget. Such a system restricts the latitude of the universities to shift resources from one budget line item to another. Concerning this respect, the issue that was raised by the majority of interviewees is the inflexibility of line-item budgets. They believe that public funding affects institutional autonomy as it lacks flexibility and has many constraints which impede universities from doing their jobs properly. A senior management member described the university freedom regarding shifting the resources among the budget items as non-existent stating:

“The government grants allocations to you in accordance with particular sections and items. You are not entitled to spend from all items freely. The transfer of resources from one item to another, sometimes requires getting approvals up to the Minister of Finance. Therefore, it is fatal centralisation, and there is no freedom.” (U1-2).

Referring to the complexity of the funding system, and in the same vein as the restrictions on the transfers among items, another participant revealed that a university is unable to transfer any amount of money to another item even if addressing a deficit in a particular item. The interviewee from the university explained this trend as follows:

“For limitations, lack of flexibility, there is no possibility to transfer resource from item to another, even if you have a deficit in a certain item, and you have a surplus in another item, you cannot move any amount. If you do such move, it will be contrary to the law.” (U8).

The lack of flexibility is not limited to the process of transfers between budget items, but it also influences even identifying and naming the budget items themselves. Although the budget preparation goes through certain stages, the most important is the estimated budget submitted by the universities, the decision as to determining the resources for items always in the hands of financial authorities and not according to the universities priorities. The following is an example to which several universities interviewees referred:

“The weaknesses is the process of developing the budget items. Such items are designed by a committee, which is often not scientific [...]. It is not reasonable that the items are not developed by the university.

How can those be aware of the nature of our work, our needs, and our problems?” (U1).

He concluded his protest by a short sentence stating that the government decides on behalf of the universities; he stated that *“the sense that they decide on our behalf.”* (U1).

Furthermore, of the challenges that accompany the adoption of the line-item budget, it has become mandatory for public entities, including the universities, to declare any unused funds at the end of the financial year. The government does not take this money away from universities, but it deducts an equivalent figure from the subsequent year’s budgetary allocation to the university. Thus, a senior management member from university (U8) explained this issue as follows:

“Here it is another large suffering experienced by universities. According to the prevailing laws, it is strictly prohibited spent after 31/12.” (U8).

He added further clarification to the steps involved in restricting the spending after 31/12:

“When the committees of the Audit Bureau come to the university and then sign on the last check that has been spent. Therefore, you are not entitled to use any check after it until the subsequently approved budget, and send you permission for starting the spending.” (U8).

One of senior officials from the Ministry of Finance presented a comment that is consistent with the previous answers, by stating:

“[...], according to the laws in force, a university does not have the right to spend one dirham after 31/12, even though it has millions of leftovers.” (G8).

This is confirmed by what is stated in the legislations through the article 30 - the budget regulation. The provision of the article is:

“For transferring any amount from item to another, should submit a request to the finance minister who would move it to the financial committee for initial investigation. After that, the finance ministry presents the result of investigation to the Council of Ministers, then to the parliament for deciding” article 30 (343)

As based on the previous studies that addressed the line-item budget as one of allocation methods. The majority of studies (Estermann & Pruvot, 2011; Estermann, Pruvot, & Claeys-Kulik, 2015; OECD, 2008a; Orr, Jaeger, & Schwarzenberger, 2007; Salmi & Hauptman, 2006a) findings are consistent with the findings of this study. Such studies

indicated that this approach is typically subject to restrictions as to how universities spend funds obtained from governments; furthermore, the extent to which universities can reallocate among budget items is controlled centrally.

6.9 Summary

In summary, the perceptions of participants indicated that universities face complex and demanding issues, notably from a funding point of view. These issues have a negative influence on universities' work towards achieving their goals. For example, lack of diversifying funding sources; inadequacy of funding; bureaucracy and complexity; lack of transparency; and adopting the line items budget. It is notable that there is diversity in the perceptions of the different groups of universities officials and government officials on some of these issues such as complexity and bureaucracy, inflexibility of line-item budgets, and inadequacy of funding. It can be argued that there was a mutual agreement regarding the financing system and the problems that seriously affect it as they all suffer from lack of diversity of funding sources, reconsidering providing university education free for all, transparency and the lack of trust between the government and universities regarding universities estimates. The factors were many and overlapping, yet the impacts will affect the university performance in the long term unless a miracle happens, though this is unlikely to happen at least now.

Chapter 7 - Conclusion and Recommendations

7.1 Introduction

In the previous chapter, the data retrieved from qualitative findings were presented, analysed and interpreted; also, these results were discussed in connection to the relevant theoretical and empirical studies. This final chapter draws together the conclusions, possible contributions, and recommendations of this study. It starts by presenting an overview of the research aim, objectives, and research questions. This chapter briefly revisits the research questions put forward in Chapter 1. Then, a brief outline of the main findings and conclusions is provided. The chapter also presents the study main contribution to theoretical and empirical research. Finally, the limitations of the study are addressed together with recommendations for further studies.

7.2 Research questions and key findings

As a conclusion, the findings suggest that the operations of public universities are not only contingent upon government funding but also on the exploitation of universities' resources. Besides, the findings reveal that there are certain factors behind the low levels of universities' resources, such as legislation, government restrictions, lack of government encouragement and seriousness for universities to improve their income. The study also identifies various motivational factors behind government funding decisions. Furthermore, the findings confirm that, for universities and government agencies alike, economic (that is, resources available, government priorities, and instability of economic and political status in Libya), social (tribal as well as personal influence) and political factors (i.e., political clout, government and legislations restrictions) influence the distribution of resources. The following sections provide more details concerning the key findings of this research.

As mentioned earlier in Chapter 1, the aim of this research was to explore, understand and examine the government funding policies of public universities in Libya. In order to achieve this overall aim, the present research used a qualitative design.

RQ1. What is the current model of resource allocation of funding for Libyan universities in terms of

- i. Funding sources,
- ii. Criteria used for distributing resources, and

iii. Motivation for governmental funding?

RQ2. What are the economic, social, political and other factors that influence the allocation of financial resources to universities?

RQ3. What are the challenges faced by the universities concerning the financial aspects?

Based on the findings and discussion provided in Chapter 6, which was achieved by analyzing the data collected from the interviewees from various government agencies and public universities and the documents analysis, the most significant of these findings can be summarized as follows.

- Concerning the first question (i) of this research, which investigated how the universities are acquiring their funding. The key outcomes revealed that the public universities are mainly funded by the government, through two types of budget: recurrent and developmental budget. Moreover, some small amount of money which falls under complementary income (own resources), was obtained from tuition fees, and several business, consulting and training activities. The participants also presented several causes underlying the failure to achieve high rates of own resources for universities, which were varied and inconsistent. With reference to universities' perspectives, legislation and government restrictions, and a lack of government initiative, are key drivers behind lacking resources. However, government officials dealing with such issues justify the above from the perspective that government is deliberately restricting own-incomes of universities.

Such limitations are included within the applicable legislation, which does not give the right to the universities to spend their own resources. Moreover, such restrictions have been used by the government for minimising the corruption;

- In relation to the first question (ii), a key issue addressed in this section is how the government distributes financial resources among public universities. In summary, the government is mostly based on the criteria of the negotiation results and historical basis in distributing resource allocations among universities and for all types of expenses (salaries, administrative, and development), despite the existence of differences, to some extent, in the nature of such negotiations.

Furthermore, there is the historical basis which is an essential part of the negotiation process. The historical basis depends mainly on what was actually spent in the previous year, not on what had been allocated. Additionally, the input formula and the completion percentages of development projects are complementary criteria that are also used for allocation of financial resources.

- Regarding the first question (iii), this section explored the perspectives of different interviewees concerning the motivations behind government intervention on funding provision for public universities. The universities are funded mainly by the government for their economic development in the first place, through the development of human capital. Moreover, the findings revealed that the government is attempting to deprive low-income people access to university, as well as to gain political and security advantages for the government itself.
- The findings concerning second question (RQ2) confirm that, for universities and government agencies alike, economic factors (e.g., resources available, government priorities, economic instability in Libya) are the core factors influencing the distribution of resource allocation. Besides, the tribal influence and personal relationship are the main social factors influencing the decision as to resource allocation to public universities. The political influence takes several forms, such as government restrictions, most of which arise from legislation; political clout, which overlaps with the social factors in some cases.
- Concerning the third research question (RQ3), which addressed the challenges facing universities in terms of financial aspects, the results revealed that universities face complex and demanding issues, notably from a funding point of view. These issues have a negative influence on universities' work for achieving their goals. For example, lack of diversifying funding sources; inadequacy of funding; bureaucracy and complexity; lack of transparency; and adopting the line-items budget. It is notable that there is diversity in the perceptions of the different groups of university officials and government officials on some of these issues such as complexity and bureaucracy, inflexibility of line-item budgets, and inadequate funding.

7.3 The research contributions

7.3.1 Empirical contributions

This study, with its concentration on government policies and Libyan public university funding, provides a significant contribution to knowledge in the following ways:

- While the interest in higher education funding practices has been present within earlier research, there are very few studies, which have been carried out on Arab and North African regions, and none on Libya. However, apart from a number of empirical studies (El-Sheikh et al., 2012; Mah'd, 2014) which were conducted on Jordanian private universities, and several studies in various Arab countries (e.g. Abdessalem, 2011; Bougroum & Ibourk, 2011; Kabbani & Salloum, 2011; Kanaan et al., 2011; Nahas, 2011), such studies were descriptive, theoretical reviews and lack of empirical evidence.
- Specifically concerning the Libyan context, to the best of the researcher's knowledge there is no study on the academic or government level that considers the funding of Libyan public higher education institutions. Thus, the present study is considered to be the first study addressing the subject of public higher education finance.
- With regards to the perspectives of the participants, the majority of studies that addressed issues of public higher education funding (Ahmad et al., 2015; Claeys-Kulik & Estermann, 2015; Dao, 2015; De Villiers & Ntshoe, 2013; Mutiso et al., 2015; Schiller & Liefner, 2007; Toguebaye, 2015) have concentrated on the points of view of higher education officials, namely professors, students, and others (beneficiaries of financing); while they have not paid sufficient, or any, attention to the perspectives of government (funder). However, this study is one of a tiny body of research that has covered both perspectives (government and higher education institutions) in a single study.
- Moreover, the present study has contributed in terms of theoretical underpinning; the previous studies were varied regarding theoretical underpinning, and can be categorised into several groups. Studies have not adopted a theory (e.g. Agasisti & Haelermans, 2016; Agasisti & Wolszczak-Derlacz, 2016; da Costa Marques, 2015; Dao, 2015; Ochwa-Echel, 2016); studies have adopted Agency Theory (Ahmad & Farley, 2013; Bolli et al., 2016; Sangiumvibool & Chonglertham,

2016; Schiller & Liefner, 2007); other studies have used Resource Dependence Theory as a theoretical framework (e.g. Cruz-Castro & Sanz-Menendez, 2015; Fowles, 2014; C. Jensen, 2011); and the final group, the authors of such studies have adopted Human Capital Theory (e.g. Ahmed, 2015; Oketch, 2016; Owings et al., 2012). However, this study uses four theories (Human Capital, Agency, Resources Dependence Theory, and Institutional Theory) as a complementary theoretical framework in order to guide the study's analysis and discussion.

- The factors that are investigated and derived from the analysed data may also provide a valuable contribution; in particular, the majority of earlier studies (e.g. Amy, 2016; Dreher et al., 2008; C. Jensen, 2011; Lacy et al., 2017; Ness & Tandberg, 2013; Sanz & Velázquez, 2007) were conducted in OECD countries, in particular the United States. Furthermore, such studies used econometric techniques, and the main data source was secondary data. Though those studies intended to contain all the variables affecting government allocations to higher education institutions, there may be other factors not included in the investigation. However, this research uses the qualitative approach, which is based mainly on interviews and documents analysis; therefore, the interviewees have mentioned as many relevant aspects as possible due to the nature of interviews as a data collection instrument.
- In the same context of influencing factors, a number of prior studies (e.g. Dar, 2012; Dar, 2015; C. Jensen, 2011; Nooruddin & Simmons, 2006; Sanz & Velázquez, 2007) have attempted to examine the impact of political factors on government higher education allocations. Another set of studies (Amy, 2016; Ness & Tandberg, 2013; Perna et al., 2014; Tandberg & Ness, 2011) have investigated the influence of political and economic factors on government financial allocation to higher education institutions. A third group of study (Dreher, 2006; Dreher et al., 2008; Michael K McLendon et al., 2011) focused on the effect of mixed factors (globalisation, demographic). However, social factors have been not taken into consideration as factors influencing the decision of government resource allocation to higher education institutions.
- The study revealed two new and significant social factors of relevance to Libya, including tribal influence and personal relationships as influences on resource allocation to universities, as well as the unstable political and economic situation

in the country. Consequently, such result represents a unique contribution to the knowledge and adds something new in terms of government resource allocation to universities.

- Moreover, the findings revealed that a percentage of project completion is one of the criteria used for distributing governmental financial allocation among public universities. Therefore, the researcher considers this rare result as one of the contributions for this research, due to there being no evidence within the previous studies that this criterion has ever been used before.

7.3.2 Contributions to policy making and wider implication

- The understanding of the current model of government funding is, arguably, the initial step in attempting the possible evolution or change according to the stakeholder's view. Therefore, it is expected that study on crucial areas like this would have wider policy implications, not only for Libya but for other Arab and North African countries.
- As this is a relatively new phenomenon in Arab higher education, so the expanding knowledge on such topic is necessary and provides a better understanding. Moreover, considering that one of the study's objectives is identifying factors influencing resource allocation; a better understanding of how such factors influence government allocations to higher education institutions can help policymakers and institutional leaders forecast future funding trends.
- Development and improvement will only occur if officials feel that there is a requirement for change. Various stakeholders might be motivated for change when essential information and analysis, persuasive evidence, is provided, showing that there is a need for that change. Therefore, it is expected that the results of this research will be useful to policy makers, universities leaders, government officials, scholars, and other key players in the higher education field.
- Moreover, Libya lacks clear and accurate public policies and future trends regarding higher education funding. Thus, this research attempts to identify relevant policies through research instruments (interviews) with policy and decision makers leading to establish a substantial policy about higher education funding. The study should help institutional leaders, policymakers, and various stakeholders in higher education to explore and identify effective methods for

transferring public financial resources to higher education institutions and their students.

- Furthermore, a better understanding of how several factors, including political ones, influence government allocations to institutions of higher education can help administrators and policy makers predict future funding levels.
- The findings of the present study could also apply to other countries that share similar economic, political, and socio-cultural values as Libya, and that face similar challenges in the financing of higher education. The contributions that will be obtained from this study towards providing alternative mechanisms of resource allocation for higher education can be applied globally to other states, especially countries that share similar conditions.

7.4 Limitations

Although the present research has achieved its objectives and answered the main research questions, there is no doubt that one study alone may not be able to present all the answers to any particular question. While a study could concentrate on a specific aspect of a topic, the remaining sides could well need further investigation to obtain a full picture in such a scientific area. Thus, as with any research study, this study is subject to several limitations that should be mentioned for consideration by the users as believed by Robert K Yin (2003). Moreover, N. Denzin (2009) asserts that researchers should clarify weaknesses and strengths of their research for there to be opportunities for future investigations, despite the limitations to the scope of the present research. However, the researcher makes his best effort to overcome such limitations and ensure that his study has been carried out smoothly and with high quality, but it was difficult to control all the aspects that were likely to affect the quality of the research. Consequently, in spite of the contributions described in the last section, this study nevertheless has a number of limitations:

- The subject of this research, higher education funding, is a very extensive field. It is evident that coverage of all related aspects to higher education funding goes beyond the scope of this research. For instance, the study does not seek to empirically investigate other major issues (e.g., implications for equity and access, quality, productivity, others) that are potentially causes for the emerging adaptations for scarcity of resources. The present research has some critical

aspects to analyse and it is difficult to cover further issues, hence these dimensions are left for future studies.

- The study has addressed the policies of higher education financing by using semi-structured interviews as instruments of data collection in the Libyan context, to reach the answers to the research questions. However, the generalisation of the findings obtained to other countries may be limited due to the use of data from only one country, particularly in light of the political instability in the region (Bryman & Bell, 2015).
- The time allocated for collecting data is also considered to be one of the study limitations; alongside some financial difficulties for travelling among Libyan higher education institutions, which are distributed over a very wide geographical area. Therefore, for these reasons, the research is limited solely to public universities instead of all institutions of higher education including colleges and high institutes.
- While the study has targeted all public universities in Libya, data for two universities could not be obtained because of the on-going conflict, lack of security, and lack of security in the area where these universities were located (Chivvis & Martini, 2014); even though the researcher tried many times to conduct interviews by telephone, all such attempts were unsuccessful.
- A qualitative strategy was adopted as the most appropriate for conducting this study and has been justified in the methodology chapter. However, several issues and limitations were experienced such as: interviews and documents analyses were the most important instruments for collecting the data, and these approaches usually depend on language and meaning (Saunders & Lewis, 2012; Sekaran & Bougie, 2013). As a result, due to the data being collected by carrying out the interviews in Arabic translated into English, this translation process may influence the analysis of collected data. As well as, data collection and analysing in this study lasted long time and difficult in terms of personal cost and effort.

7.5 Directions for future research

As has been emphasised, the subject of higher education funding is a very extensive area, especially in the absence of studies on this topic concerning the Libyan context. Therefore, this a single study cannot cover all relevant aspects of this issue, and an

expansion of research in the field would be both required and desirable. The following section addresses a number of studies proposed as areas for future research.

There is an abundance of earlier studies in support of the suggestion that universities have to move away from traditional (government) subsidies to embrace funding initiatives and innovative approaches (Claeys-Kulik & Estermann, 2015; B. Clark, 1998; Cremonini et al., 2013; Estermann & Pruvot, 2011; Gebreyes, 2015; Liu, 2007; Massy, 2009; Rozmus & Cyran, 2012). Hence, the extent of willingness for change between universities and the government as moving towards a diversification of income in universities intensify needs investigation; for example:

- Future studies should investigate the climate that is created by the Libyan government to encourage philanthropic organisations, and the private sector to take part in higher education financing, in particular because Libya is in transition at all levels, political, economic, institutional.
- As an initial stage for public universities to rely on their own resources, and to reduce the burden on the government, there is a need for small universities to collaborate with each other; thus, this direction calls for an investigation.
- Further research can could investigate the perceptions of other stakeholders (students, parents, non-governmental organisations and industry), whom universities involve in their revenue diversification and sharing the cost of university education.

It would be interesting to extend the scope of the study to target other higher education institutions (high institutes, colleges, and private institutions) in order to obtain further empirical insights. As such, it allows policies makers to set the appropriate policies and strategies for developing higher education sector.

Further research could take a closer look at the perspectives of the deans of faculties, heads of department, as well as individual academic staff members. In the current study, the interviews included senior officials in universities and government agencies, and it was noticed that there was a divergence in perceptions between them concerning various matters. Therefore, the extension of perspectives could shed more light on the issues under investigation.

Moreover, there are several opportunities for conducting comparative studies: between various higher education institutions, between high and low performers, and emerging

universities and new universities. Likewise, a comparative study could be conducted from an international perspective; Libya can be compared to similar developing countries, to countries with recent funding reforms or to countries that have more experience in income diversification, as well as to identify how such governments could participate in financing higher education institutions.

This study has also revealed that the funding model used in Libyan public universities is a negotiation/ historical model that depends on previous spending and does not consider universities' performance or quality aspects. Thus, it might be worthwhile to explore which new methods in Libya might be linked to the universities' performances.

7.6 Recommendations

Based on reviewing the relevant literature and the findings of the current study, a number of recommendations are provided regarding higher education funding within the Libyan context. These recommendations could be implemented by policy makers and all stakeholders in order to improve and broaden the current strategies for funding of higher education institutions in Libya. It worth mentioning that these recommendations may not completely overcome the challenges associated with higher education, but might be an initial step for reforming its financing, which is better than continuing with the current situation. However, the researcher believes that higher education funding cannot be reformed with a single policy option or over a short period; reform will require a set of parallel policies issued by the government, universities, and the public, as well as requiring a long-term run to fully implement. These recommendations are outlined as follows:

- The results have showed that government allocations are the main funding sources for all Libyan public universities. However, as it has been pointed that the financial resources for the universities are insufficient to cater for their expenses, and the main funder (the government) is unable to increase funding to an adequate level from one year to another; thus, this requires primarily paying closer attention to the universities' future funding strategies to overcome such issues.
- In general, it is recommended that government should continue to support universities financially in the short term, and then this support can be gradually withdrawn to be replaced by universities' self-financing policy until the

universities reach the stage that they can be self-funded entirely without governmental support.

- Specifically, one of the recommended strategies is to impose tuition fees as a means of cost sharing; it should be emphasised that such fees would be used to complement government funding, not as a substitute to it. Moreover, considering that the Libyan higher education institutions do not have history of tuition fees, highly subsidised feeding and living costs would be necessary. These issues would be sensitive, and must be dealt with carefully to avoid any negative responses from the stakeholders; thus, it is recommended that the government should phase these subsidies in; also, students, their families, and all interested parties should be involved in the decision making. Moreover, to achieve success the imposition of tuition fees should be as a means of cost-sharing; it is recommended that the government and universities should educate stakeholders about the advantages of such programs, such as increasing capacity to enrol more students and improvement in the quality of university education; the process of setting tuition fees should be made transparent. To avoid the equity issues associated with tuition fees, the government should establish student aid programs such as student loans, student vouchers, and scholarship programmes targeted towards more needy students.
- Due to the own resource of universities being low-scale, the researcher recommends that Libyan public universities need to be open to innovations in the area of sourcing for non-government income to contribute efficiently in the structure of university income.
- There are several universities that are still relatively small and hence with limited facilities and experience; such universities can improve their own resources through forming alliances with other universities, which have more capabilities; also, they can utilise universities that have been successful in dealing with a diversification of their revenues.
- To achieve the above suggestions, the government should provide universities their well-deserved autonomy, which will encourage universities and will drive them to become more sensitive to their consumers' demands for relevance. However, university autonomy should not negate the important role of the government; this role lies in promoting access, providing subsidies, and ensuring

quality assurance. In addition, there is the need for government coordination regarding setting some form of a price ceiling for tuition fees.

- Moreover, with regards to the budget used for universities, the researcher recommended that the government restrictions should be reduced through a shift away from line-item towards block grant financing; this provides universities more autonomy and helps them spend funds granted according to their priorities; at the same time, the appropriate laws and regulations that may require adjustment to accommodate such a transition from a legal perspective.
- It is recommended that the government strive to create an acceptable balance between providing support to higher education institutions directly, and making subsidies available to students (by vouchers, student loans and scholarships).
- This is best achieved through an accurate and transparent formula which protects the decisions of allocations from social and political pressures and includes incentives to shape universities' plans consistent with national goals. Thus, it is recommended that performance-based funding be enhanced to creating a competitive environment for higher education institutions; also, this formula would contribute to achieve more differentiation in funding, quality, and pricing in higher education. However, this strategy should be implemented gradually in consultation with higher education stakeholders and the appropriate government agencies.
- Foster the development of a private sector of higher education, which could contribute to reducing the burden on the government, as well as leading to the creation of a kind of competition between the public and private supply, regarding the cost and the quality of university outputs.
- It may not be easy to change the existing behaviour of universities after years of old practices. Thus, the researcher recommends the establishment of a new university of excellence, based on the model of top universities in Europe and the US. This can lead other universities to emulating this centre of excellence and even seek improvements, in particular concerning funding issues.

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APPENDICES

APPENDIX -1: Ethical Approval

9/11/2017

Mail – Anwar.Elbashir@hudd.ac.uk

RE: about ethics committee – BUSETHICS14/15-018

Anwar Elbasir U1274660

Tel: 01482 477520

anwar.elbasir

to: Alex Thompson <alex.thompson@hudd.ac.uk>

Dear Alex,

Thank you so much for your efforts and your understanding.

Best regards

Anwar Elbasir

From: Alex Thompson
Sent: 19 March 2015 10:30
To: Anwar Elbasir U1274660
Cc: Eleanor Davies; Kalim Siddiqui; Hannah Spencer
Subject: RE: about ethics committee – BUSETHICS14/15-018

Dear Anwar,

I have been asked to forward the following to you:

Following consideration of the updated letter and information sheet, the Ethics Panel is now satisfied that this meets ethical requirements and confirm approval of the review.

Dr Eleanor Davies
Chair of the Business School Ethics Committee

Regards,

Alex Thompson

Course Administrator

01482 477520

a.thompson@hudd.ac.uk

www.hudd.ac.uk

University of Huddersfield Business School

University of Huddersfield | Queensgate, Huddersfield | HD1 1TA



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Twitter - https://twitter.com/hudd_business

From: Anwar Elbasir U1274660
Sent: 18 March 2015 17:03
To: Alex Thompson
Cc: Kalim Siddiqui; Hannah Spencer
Subject: about ethics committee

Dear Alex,

I have already fulfil the requirements through attached file (information sheet).

Best regards

Anwar

University of Huddersfield inspiring tomorrow's professionals



This transmission is confidential and may be legally privileged. If you receive it in error, please notify us immediately by e-mail and remove it from your system. If the content of this e-mail does not relate to the business of the University of Huddersfield, then we do not endorse it and will accept no liability.

APPENDIX -2: Ethical Approval Claim Form

THE UNIVERSITY OF HUDDERSFIELD

Business School

POSTGRADUATE STUDENT / STAFF RESEARCH ETHICAL REVIEW

SECTION A: TO BE COMPLETED BY THE APPLICANT

Before completing this section please refer to the Business School Research Ethics web pages which can be under Resources on the Unilearn site (Ethics Policies and Procedures). Applicants should consult the appropriate ethical guidelines.

Please ensure that the statements in Section C are completed by the applicant (and supervisor for PGR students) prior to submission.

Project Title	An investigation of the current Libyan government policies relevant to universities funding resource allocation: An Exploratory Study
Applicant	Anwr Elbasir
Award (where applicable)	PhD
Project start date	10/2013

SECTION B: PROJECT OUTLINE (TO BE COMPLETED IN FULL BY THE APPLICANT)

Issue	Please provide sufficient detail for your supervisor to assess strategies used to address ethical issues in the research proposal. Forms with insufficient detail will need to be resubmitted.
Researcher(s) details	Anwr Elbasir

Supervisor details	Dr Kalim Siddiqui
<p>Aims and objectives of the study. Please state the aims and objectives of the study.</p>	<p>The principal aim of this research is to explore, understand and examine the government policies relevant to higher education funding in Libyan context.</p> <p>The objectives are:</p> <ul style="list-style-type: none"> • To provide an analytical view and find the necessary information needed to establish a full picture of the current model of funding allocation mechanisms in public university financing concerning funding sources, the criteria used for distribution of funds, and motivations behind government funding • To identify the economic, social, political and other factors influencing the allocation of financial resources to universities. • To identify the challenges and prospects faced by Libyan public universities with respect to funding.
<p>Brief overview of research methodology</p> <p>The methodology only needs to be explained in sufficient detail to show the approach used (e.g. survey) and explain the research methods to be used during the study.</p>	<p>The research method will be based on the qualitative approach. The qualitative approach will be employed because it enables the researcher to consider the whole situation and seeks to understand, what are the elements that are "inter-acting" and determining the research phenomenon.</p> <p>Accordingly, the method of data collection will be Semi-structured interviews with key people from different government agencies who have involved in the funding system of higher education. In addition, related people in universities.</p>
<p>Does your study require any permissions for study? If so, please give details</p>	<ul style="list-style-type: none"> • Yes: Letter from Libyan embassy and letter from supervision team.

<p>Participants</p> <p>Please outline who will participate in your research. Might any of the participants be considered ‘vulnerable’ (e.g. children)</p>	<ul style="list-style-type: none"> •Members of the legislative authority (Parliament). • Officials at Ministry of higher education • Officials at Ministry of finance • Officials at Ministry of planning • officials at Universities
<p>Access to participants</p> <p>Please give details about how participants will be identified and contacted.</p>	<p>The population of the study includes those responsible for financial allocation for universities, starting with members of higher education committee at Libyan parliament, officials at finance and planning ministry, and officials who participate in the financial resource allocation. I will send email to the participants requesting face to face interview and attached invitation letter, information sheet and consent letter.</p>
<p>How will your data be recorded and stored?</p>	<p>All data will be digitally recorded using Dictaphone.</p> <p>The record and transcription will be saved in password protected files by then all the files will be stored in a secured place (the researcher K driver) and will be used only by the researcher for his own research purposes. In case the participant does not agree to be recorded, I will ensure the participant that any notice taken or papers as well as any confidential information and data will be stored in a locked place.</p>
<p>Informed consent.</p> <p>Please outline how you will obtain informed consent.</p>	<p>The participants for face to face interview will be approached via email and attached invitation letter, information sheet and consent letter.</p>
<p>Confidentiality</p> <p>Please outline the level of confidentiality you will offer respondents and how this will be respected. You should also outline about who will have access to the data and how it will be stored. (This information should be included on Information your information sheet.)</p>	<p>No names will be identified and cods will be used.</p> <p>Data generated by the study must be retained in accordance with the University’s policy on Academic Integrity and therefore will be kept securely in paper or electronic after the completion of the research project.</p>

<p>Anonymity</p> <p>If you offer your participants anonymity, please indicate how this will be achieved.</p>	<p>No names will be identified and cods will be used.</p> <p>All information provided by interviewees will be strictly confidential and used for the purpose of the study, the result will be presented in a comprehensive form, thus, interviewees' anonymity is guaranteed.</p>
<p>Harm</p> <p>Please outline your assessment of the extent to which your research might induce psychological stress, anxiety, cause harm or negative consequences for the participants (beyond the risks encountered in normal life). If more than minimal risk, you should outline what support there will be for participants.</p> <p>If you believe that that there is minimal likely harm, please articulate why you believe this to be so.</p>	<p>N/A</p>

Retrospective applications. If your application for Ethics approval is retrospective, please explain why this has arisen.

N/A

SECTION C – SUMMARY OF ETHICAL ISSUES (TO BE COMPLETED BY THE APPLICANT)

Please give a summary of the ethical issues and any action that will be taken to address the issue(s).

- No names will be identified and cods will be used.
- Data generated by the study must be retained in accordance with the University's policy on Academic Integrity and therefore, the record and transcription will be saved in password protected files by then all the files will be stored in a secured place (the researcher K driver) and will be used only by the researcher for his own research purposes.
- Participant's information anonymity and confidentiality is assured according the university of Huddersfield Data Protection ethics *Act 1998*.

SECTION D – ADDITIONAL DOCUMENTS CHECKLIST (TO BE COMPLETED BY THE APPLICANT)

Please supply copies of all relevant supporting documentation electronically. If this is not available electronically, please provide explanation and supply hard copy.

I have included the following documents

Information sheet	Yes	<input checked="" type="checkbox"/>	Not applicable	<input type="checkbox"/>
Consent form	Yes	<input checked="" type="checkbox"/>	Not applicable	<input type="checkbox"/>
Letters	Yes	<input checked="" type="checkbox"/>	Not applicable	<input type="checkbox"/>
Questionnaire	Yes	<input type="checkbox"/>	Not applicable	<input checked="" type="checkbox"/>
Interview schedule	Yes	<input checked="" type="checkbox"/>	Not applicable	<input type="checkbox"/>

SECTION E – STATEMENT BY APPLICANT

I confirm that the information I have given in this form on ethical issues is correct. (Electronic confirmation is sufficient).

Applicant name: Anwr Elbasir

Date 11.03.2015

Affirmation by Supervisor

I have read the Ethical Review Checklist and I can confirm that, to the best of my understanding, the information presented by the Applicant is correct and appropriate to allow an informed judgement on whether further ethical approval is required

Supervisor name: Kalim Siddiqui

Date 11.03.2015

All documentation must be submitted electronically to the Business School Ethics Committee Administrator Alex Thompson at alex.thompson@hud.ac.uk.

All proposals will be reviewed by two members of SREP. If it is considered necessary to discuss the proposal with the full Committee, the applicant (and their supervisor if the applicant is a student) will be invited to attend the next Ethics Committee meeting.

If you have any queries relating to the completion of this form or any other queries relating to the Business School's Ethics Committee in consideration of this proposal, please do not hesitate to contact the Chair, Dr Eleanor Davies (e.davies@hud.ac.uk) ☎ [47] 2121 or the Administrator Alex Thomson (alex.thompson@hud.ac.uk) ☎ [47] 2529

APPENDIX- 3: Libyan Embassy Approval

Libyan Embassy Cultural Attaché - London	 وزارة التعليم العالي والبحث العلمي Ministry of Higher Education & Scientific Research	سفارة ليبيا الملحقية الثقافية - لندن
<hr/>		
02-03-2015 : التاريخ 2015-03-14050 : الرقم الاشاري 9107 : رقم الملف 469/2009 : رقم قرار الإفاد: 01/11/2012 : بداية الصرف 31/10/2016 : نهاية الصرف 48 : اشهر المنحة		اسم الطالب : أنور عبدالكريم الزرقاني البصير الدرجة العلمية : دكتوراة التخصص : تخطيط مالي
<hr/>		
السيد / مدير إدارة البعثات الدراسية بعث التالية ،،		
الموضوع / تعريف طالب لدراسة حقلية		
<p>تشهد الملحقية الثقافية بأن الأخ / أنور عبدالكريم الزرقاني البصير أحد الطلبة الموفدين لدراسة الدكتوراه في مجال التخطيط المالي على حساب الدولة في الساحة البريطانية من الفترة 2012/11/01 إلى 2016/10/31 م . يرغب الطالب في جمع بعض البيانات والمعلومات المتعلقة ببحثه العلمي لذا يرجى تسهيل مهمته وإبداء المساعدة في هذا المجال.</p> <p>أعطيت له هذه الإفادة بناءً على طلبه لاستخدامها فيما يخوله القانون و تعتبر رسمية بعد التوقيع و الختم.</p> <p>وشاكرين حسن تعاونكم معنا مسبقاً .</p>		
والسلام عليكم ورحمة الله وبركاته ،،،		
أ.ج. صلاح الدين أبو بكر الملاحق الثقافي		
		
<hr/>		
Printed On: 02/03/2015		Printed By: FA042
61-62 Ennismore Gardens, London, SW7 1NH T: +44(0)20 3006 9891 F: +44(0)20 7584 6961 W: culturalaffairs.libyanembassy.org		

APPENDIX-4: Consent Form

Consent Form

Research Title: An investigation of the current Libyan government policies relevant to public universities funding resource allocation: An Inductive / Exploratory Study

Student (researcher): Second year PhD student, Business School, University of Huddersfield

Anwr Elbasir

Please read and tick the boxes below if you agree

1. I confirm that I have read and understand the Participation Information Letter explaining the above research study and I have had the opportunity to ask questions about the research.

2. I understand that my participation is voluntary and I am free to withdraw at any time without giving any reason.

3. I understand that if I decide to withdraw from this study, or if the researcher withdraws me from this study (prior to the final version of the PhD), then any collected data would be retained and used in this study only if I give my permission.

Please read (4) and (5) and tick yes or no as appropriate

4. I agree to take part in the above research study.

Yes	No
-----	----

5. I agree to the interview being audio- recorded

Yes	No
-----	----

6. I agree to the use of anonymised quotes in publications

Yes	No
-----	----

Name of Participant

Signature and Date

Name of Researcher

Signature and Date

Dear Participant,

I am undertaking a research on “financial resources allocation for Libyan universities” as part of my PhD under the supervision of Dr Kalim Siddiqui. The study is: An investigation of Libyan government policies towards the public universities funding resource allocation: An inductive / exploratory study.

I would like to spend around 60 minutes with you for the interview, which would explore your opinion on the how the financial resources are allocated for universities in Libya. All information provided by you will be strictly confidential and used only for the purpose of this study. The result will be presented in an aggregated form; thus, your anonymity is guaranteed.

I thank you in advance for your anticipated cooperation and participation in this study. If you have any questions, please free to email me by (u1274660@hud.ac.uk) or call me by (00 218928099591- Libya) or (0044 7596422301 – UK). Also, you can contact directly the supervisor of this research as named above by his email (K.U.Siddiqui@hud.ac.uk) .

Yours Sincerely,

Anwr Elbasir

PhD Researcher

APPENDIX -5: Information Sheet

Information Sheet

Research Title: An Investigation of the Libyan Government Policies Towards the Public Universities Funding Resource Allocation: An exploratory study.

Prepared by: Anwr Elbasir

This study investigates and explores the motivation behind supporting universities by government. In addition, to explore the applied mechanisms used by government for allocating funds to universities, along with the challenges and the various aspects of the process with the objective of understanding what helps or hinders such process and its direct/indirect impact on universities; furthermore, in the light of international tendency toward rethinking of public support for higher education institutions.

The principal aim of this research is to explore, understand and examine the government policies relevant to higher education funding in the Libyan context. This aim will be achieved by meeting the following objectives:

- To provide an analytical view and find the necessary information needed to establish a full picture of the current model of funding allocation mechanisms in public university financing concerning funding sources, the criteria used for distribution of funds, and motivations behind government funding
- To identify the economic, social, political and other factors influencing the allocation of financial resources to universities.
- To identify the challenges and prospects faced by Libyan public universities with respect to funding.

The study targets people who are directly involved in funding of universities, starting with policy makers (legislators) for these policies, passing through executives (government agencies), and ending with beneficiaries (universities) of funding policies. According to your position, and as you hold an important role in this system, you are selected for an interview as the most significant person and most relevant to this area.

All information collected will be kept strictly confidential in order to protect the anonymity of each participant. The audio record will be saved in password protected computer files accessible only by myself. The University provides each Researcher with space on the secure University computer server which is, itself, password protected, and accessible by the researcher only. The University also provides each Researcher within their office with an individual secure locker. Any physical notes and the audio recorder will be within this locker. No material will be left unattended on my desk. Access to my office is by a coded door entry. If you prefer not to be audio recorded but allow hand written notes – these will never be left unattended and always secured in my personal locker.

All research material will be used only by the researcher for his own research purposes.

Thank you very much for taking the time to read this information sheet, I would be most grateful, if I could arrange an interview with you to devote a little time from your valuable duties.

I strongly believe you will provide valuable information, wealth of knowledge, constructive ideas and positive help for developing and completing the undertaken research.

Finally, if you have any questions about this research study or your potential participation in this study, please contact me.

Anwr Elbasir

Doctoral Candidate, Department of Strategy, Marketing and Economics

Business School, University of Huddersfield

Queensgate,

Huddersfield, UK

HD1 3DH

Email: U1274660@hud.ac.uk

An.basir@gmail.com

Mobile No. (+44) 07596422301

APPENDIX -6: Interview Questions

Section (A): Financial resources allocation model

Q1. Could you please tell me, where does your university secure funds from? If there are different sources, what contribution does each makes to the total revenue? If no, why?

Q2. What mechanisms are adopted by the authorities to allocate financial resources to the public universities?

Q3. What is the criteria used by the government authorities, for distributing financial sources to the public universities?

Q4. From your perspective, up to what extent plans, objectives, priorities, statistics, data sets, are considered by universities for financial resource allocation?

Q5. In your opinion, why government fund universities?"

Section (B): Factors

Q6. What are the economic, social, political, and other factors that influence the allocation of financial resources to universities? Also, how do they affect it?

Q7. What is the extent of the impact of the current political situation in the distribution of financial allocations to universities? How?

Section (C): Challenges

Q8. Could you please tell me, what are the challenges universities face, concerning the financial aspects?

Q9. In your view, what are the main strengths and weaknesses of the existing system for funding universities?

Q10. In your opinion, can the current political unrest and conflict in the Libya, be one of the issues, which hinder the distribution of financial resources for universities? If yes, how?

Section (D): Conclusion

Q11. If you had the opportunity, to alter the way universities are funded, what changes would you make?

Q12. Would you like to add anything to the discussion? Is there anything, in your opinion that has not been covered within previous questions?