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Higher education, funding, polices and politics: A critical review

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Abstract. This paper intends to critically examine the existing literature on the funding of the higher education and also trying to analyse this issue in Libyan context, which is a developing and oil dependent economy. The discussion will try to establish a full picture of the current model of funding allocation mechanisms in public university and the criteria used for distribution of funds, and motivations behind government funding. With recent globalization, the cross border movements of goods, services and people have increased in recent decades and it has brought new challenges to the higher education funding. The findings suggest that by looking at other factor such as motivation, which in Libyan case, to win over supports from different tribes and this seems to be for political purposes. The government in Libya seems to be seeking to achieve political purposes through the financing of higher education institutions.
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1. Introduction

This paper intends to critically examine the existing literature on the funding of the higher education and also trying to analyse this issue in Libyan context, which is a developing and oil dependent economy. The aim of this study is to analyse the current model of funding allocation mechanisms in public university, the criteria used for distribution of funds, and motivations behind government funding.

The amount of human capital that a person acquires depends on both public and private decisions. The nature of state funding in higher education is clearly important. Around the world, the higher education sector is considered to be a major contributor to the development of skills, labour productivity, 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; Pinheiroand 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

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revenues from tax, productivity and workforce flexibility, and the availability of financial support from both the public and private sectors (Peercy & Svenson, 2016). Perhaps economic and social motivations are not the sole motivations behind governments in funding higher education institutions. This study also examines another factor such as motivation, which in Libyan case to win over supports from different tribes and this seems to be 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); they believe that government subsidisation is one of government's instruments of intervention.

A number of theories and opinions have been presented on the higher education funding and here the study will review some of the most prominent theories such as agency theory, resource dependency theory, human capital theory, and institutional theory. The intention is to analyse various perspectives concerning higher education funding on fast changing globalised world. 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.

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 (Kim, Horta, & Jung, 2017; Ochwa-Echel, 2016). A number of scholars (e.g. Bevc & Uršič, 2008; Salmi & Hauptman, 2006) have emphasised 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 (Siddiqui, 2012). 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. The issue of the diminishing availability of public funding to higher education institutions has become a topic of discussion in many countries (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 (World Bank, 1994). 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).

With recent globalization, the cross border movements of goods, services and people have increased in recent decades and it has brought new challenges to the higher education funding. 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; 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' (Siddiqui, 2009). 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). The Middle Eastern and North African (MENA) countries have also faced additional challenges such as the youth demanding for better opportunities in terms of higher education and employment. Seeking financial sustainability for educational demands should be a priority for systems of higher education (Jaramillo & Melonio, 2011).

Moreover, a number of scholars (e.g. Hyslop-Margison & Leonard, 2012) have attributed the problems of higher education funding to political causes such as neoliberalism. For example, Hyslop-Margison & 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 (Siddiqui, 2012). These scholars added that "neo-liberalism 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, 2012:3).

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). Due 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 (Andeßner & Greiling, 2017; Jongbloed & Vossensteyn, 2016).

2. A survey of the literature

There have been extensive debates on the role of higher education in the economic development. There seems to be 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, 2004).

In the same context, (Barr, 2004) 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, 2004, 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, 2004). 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.

Agency theory was first developed by Gill & 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).

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. 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.

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" (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. 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 & Chonglerttham (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, 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 & Chonglerttham (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). These authors have 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. 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 (2008) 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 (2008) 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. Within the higher education sector, institutions may signal information about teaching quality and research activities Kivistö (2008). 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.

Hastor (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 (Hastor, 2015). 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 & 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. Another study by Eckwert & Zilcha (2004) also found that information symmetry enhances screening and improves human capital.

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 (Eckwert & Zilcha, 2010).

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. 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 & 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 (e.g. as in the case of Libya) will be significantly dependent on that supplier, such dependence might exercise a great impact on those organisations. 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, 2003).

Mudambi & 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. It is believed 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. 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, 2003).

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 (Oliver, 1988). The procurement of external resources is an essential component for the strategic and technical management of any organisation.

Education is defined as a form of human capital. Human capital is viewed as a stock of knowledge and the characteristics of the worker which contribute to his or her productivity. Human capital theory is discussed from two perspectives, the micro and macro level. The macro level emphasises the link between higher education and growth (Bloom, Canning, & Chan, 2006). For instance, (Bloom, Canning, & Chan, 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 & 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 following benefits of investing in higher education could be: 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 *et al.,* 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 (OECD, 2010).

Concerning the role of education in decreasing the unemployment rate, Tamasauskiene & 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 *et al.,* (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.

More recently Suhonen (2014) found that higher education quality impacts graduates' earnings. The theory also assumes that human capital is the ability to acquire formal education. 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 (Spencer, 1973).

Institutional theory has been widely applied in the investigation of practices and structures in non-profit organisations, such as universities, various non-government organisations (Decramer *et a.l,* 2012; 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;

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 (Decramer *et al.,* 2012). For example, Mizruchi & Fein (1999:657) 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".

Such coercive pressures in most cases are exerted by a government's laws, policies, and government regulations (Decramer *et al.,* 2012). Legal or regulative pressures guide organisational actions by threat or coercion of legal sanctions (Scott, 1995). Concerning this regard (Townley, 1997:261) 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, 1997:261) argues that *"coercive – as the result of formal or informal pressure exerted by those organisations on which there is (usually financing) dependence".*

Moreover, (Townley, 1997:264) 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."

Normative isomorphism is created from within the organisation itself, as well as maybe being based on values and professional roles or norms. 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).

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.

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. 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 (1995:574) 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 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.

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; 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

(World Bank, 2000). Notably, the World Bank study (2000:63) 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 & 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).

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.

3. Funding of higher education in Libya

This section focuses on issue concerning higher education funding particularly the public universities in Libya. Its economy is largely based on oil exports, and it is classified as one of the upper-middle income countries (Alsanousi, 2017). 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). Libya is one of the countries where the degree of state intervention is higher in the economy and the economy is managed by the state planning and government intervention for more than four decades. 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 (John, 2008).

Higher education in Libya, as elsewhere in the developing countries, 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).

Libya depends on its public sector to run and finance its higher education sector; this is because of the abundance of funds and the nature of the oil-based economy (Gallali, 2012). The 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 in Libya. 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 LYD 17.9 million, and increased again to LYD 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 LYD 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 (Otman & Karlberg, 2007). Along with the change in the country's political scenario, public spending reached more than 2 billion LYD in 2013. (Ministry of Finance, 2013)

Financial sustainability is the key challenge to public universities, especially for the developing 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 in the developing countries. Moreover, since the 2008 global financial crisis, international financial institutions have been putting pressure on the developing countries to take measures to reform funding policies in higher education. These 'funding reforms' have included performance-based budgeting, budget cuts, and incentive funding to encourage commercialised research (Sangiumvibool & Chonglerttham, 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).

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 & Ibourk (2011) explores the policy of higher education financing, in particular concerning the equity issue. 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. Also 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 report (Jaramillo & Melonio, 2011) 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).

Research on the higher education has emphasised the impact of three critical factors: political influence, economic conditions and student headcount (Sangiumvibool & Chonglerttham, 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. 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). 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 recent studies (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?.

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.

4. Conclusion

An overview of the theoretical literature concerning higher education funding has been provided in this study. 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.

The findings suggest that with increased globalisation and movements of people and goods and services, it is important to critically examine at funding polices in the higher education. Libyan example is important due to both reasons of its highly dependent on oil revenue and also a developing economy. The international oil prices are very unstable which had impacted on Libya’s oil revenues and thus government’s ability to fund higher education. Therefore, there is an urgent need to diversify funding source and to minimise uncertainty.

The study concludes that by looking at other factor such as motivation, which in Libyan case, to win over supports from different tribes and this seems to be for political purposes. In other words, there is a belief that governments seek to achieve political purposes through the financing of higher education institutions.

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