

**T.C.
ISTANBUL OKAN UNIVERSITY
INSTITUTE OF SOCIAL SCIENCES**

**ROLE OF BANKING SECTOR IN SUSTAINABLE
DEVELOPMENT ENHANCEMENT VIA GREEN
FINANCING PROSPECTS
(A CASE STUDY OF LIBYA)**

MARIAM M. ALI FRIAISS

**DOCTORAL DISSERTATION
DEPERTMANT OF BUSINESS ADMINISTRATION
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ADVISOR

Prof. Dr. HALİT TARGAN ÜNAL

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Abstract

It is increasingly recognized that green financing has considered as a positive shift in the global economy's transition to sustainable development by financing green investments and eco-friendly in all fields and addressing climate change; that recognised as one of the most global contemporary issues of concern.

It can be said that green financing links the financial industry with environmental improvement and economic growth. This research begins by identifying the key concepts of Sustainable Development and green finance strategies and the possibility of applying them in Libya, in addition to identifying the importance of the government's endorsement for green financing policy.

The research was carried out through employing the quantitative descriptive methodology. The descriptive method was represented by reviewing books, previous studies and several articles that were directly related to the current study of primary data collection. Reviewing literature has indicated that there is a lack of literature in this field of studies, especially in developing countries. As well as, the researcher designed a questionnaire forms that were distributed over a randomly selected sample of staff and some clients of the banks in Tripoli.

The collected data were analyzed using statistical methods to answer the study questions, test the hypotheses and reach to the results. And Through which several recommendations were suggested. several recommendations were suggested such as that government's should encourage banks to stimulate sustainable financing and to step further to green financing , As well as raising the efficiency of the Libyan banking sector and building capacities with international expertise and application of governance to ensure the safety of banks and support their role in the national economy

This study concluded that the initiative of the banking sector in a promising new period of green financing may be the way to achieve sustainable development in Libya.

Keywords: Green Finance, Libyan banking sector, sustainable development;

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ABBREVIATIONS

CBL	Central Bank of Libya
UN	United Nations
SDGs	Sustainable Development Goals
CO2	Carbon Di-Oxide
MDG	the Millennium Development Goal
UNDP	United Nations Development Programme
UNEP	the United Nations Environment Program
IUCN	International Union for the Conservation of Nature and Natural Resources
SD	Sustainable Development
UNCSD	The United Nations Conference on Sustainable Development
NSDS	national sustainable development strategy
IDGs	International Development Goals
GABV	the Global Alliance for Banking on Values
Eurosif	The European Sustainable Investment Forum
FEBEA	The European Federation of Ethical and Alternative Banks
CBD	Convention on Biological Diversity
UNFCCC	the United Nations Framework Convention on Climate Change
UNPRI	UN Principles for Responsible Investment
UNEP	finance initiative"
EITI	Extractive Industries Transparency Initiative
GRI	Global Reporting Initiative

CDP	Carbon Disclosure project
ILO	International Labor Organization



Chapter 1

Introduction

1.1 Introduction.

World is now faced with a enormous environmental, economic and sociological change impacts and threats that are rendering numerous areas susceptible to adverse sequels.

The speedy global population growth stresses the demands on the natural resources as a result to the increased consumption and production patterns in the economic field all over the world. So, the global economy ought to explore alternative approaches to its operations that consider the social and environmental aspect of their impacts.

Concerning the green financing and sustainability, this needs the support of the Government and private sector to govern the sustainable development integration as part of the economic growth model. In parrall, the viability of applying sustainability was dependent on the benefits to the banking sector.

In acordance with the above mentioned criteria, this research explores the real statement and viability of applying these concepts in Libya as a developing country struggling out of an economic recession in the past decade and where the literature review indicated a shortage in literature on developing countries and particularly Libya in terms of green banking and promoting sustainability through the financial sector. Also, to bridge the gap in studies between sustainable development and access to finance in developing countries, and present an attempt for policy recommendation to promote and enforce sustainable development in Libya.

The research was conducted in a qualitative, descriptive approach using different methods as observation, online review of publications, and surveying banks in Libya. Global case studies were explored as good case practices to support the findings obtained from the conducted surveys with banks in Libya. This allowed comparison and contrasting established approaches in other countries with similar realities, and compensated the shortage of literature on Libya.

1.2 Libya: As a case Study.

Based on the country aspects revealed in literatures, Libya was selected as the country case study for this research as it considered to be one of the key players in the North Africa economy and its banking sector is of vital importance in terms of its

contribution to the overall economic growth of the country and the region (Poshakwale and Qian, 2012).

With the current economic challenges facing the region generally and Libya specifically, incorporating sustainability in banking is a key approach out of the economic crisis and reduces the risks of defaults for banks.

Alongside the economic significance of the country, it is also highly vulnerable to the effects of ecological changes, and adverse environmental and social impacts. Therefore, actions need to be taken to combat the potential threats. Therefore, this research serves to clarify the challenges and possible mechanisms to achieve sustainability effectively with the help of banking sector funding and green economy policies.

Focusing on Libya as a case study allows for an in-depth analysis to assess the existing economic, political and social factors that can enable or hinder green finance in the country. It provides a scientific background for detailed assessments and analysis to accommodate the reality of the country and the banking sector to manage sustainability effectively.

Libya is a developing country with potential in the field of sustainable development, thus this research is an attempt to bridge the gap in the literature on developing countries and social and environmental risk assessment in banks.

1.3 Research Problem.

During last decades, incorporated governance system played a good role towards the rapid population growth that has adverse consequential impacts on the economic growth, environmental health and social welfare. Moreover, national and international communities, are committed and trying up till now to reach a global solution on finding the right balance between economic development and keeping a healthy environment. The issue that seems actually to be the main core of the green finance.

According to the United Nations Department of Economic and Social Affairs (UNDESA), by the year 2050, the world population is expected to reach 9.7 billion with Africa accounting to more than half of the population growth (UNDESA Report, 2015). In turn, and as a geographical located African country, Libya country is characterized by the growing economy that results in an excessive surge in demands on natural resources, economic development, and production required for coping with basic needs of people.

On the other side, most of developing countries –and Libya among them- struggle to strike a balance between the shortage, conflicting policies and conducting sustainability demands via green financing. The later issue i.e. green finance meet with some constrains from banks and banking systems due to their insufficient and inconsistent internal and external policies and practices governing this issue deals that in turn address somewhat tensions between financial community and business actors that currently may represent a barriers for sustainability investments. Most of these tensions and problems were adopted regionally and locally by some countries according to their political and economic status.

Coincident with these efforts, the enforcement of sustainability regulations and principles requires supporting from: 1) The private sector and 2) Governmental authorities to increase the capacity, widen outreach and ensure more effective enforcement mechanisms (Ruggie, 2014).

Concerning Libya, a new governance and enforcement mechanism ought to be introduced to the system. So, the thesis problem is mainly structured in finding an answers to the questions about the relationship between Banking and businesses and financial actors in how Libyan policies become involved in governance and banks how becomes more oriented towards green sustainability. More specifically, The focus of the research is to promote sustainability through the banking sector.. Furthermore, delivering implications and recommendations for responsible parties and banks To achieve green funding policies.

1.4 Research Questions.

The main question for this research that directed the case study is:

“Is there a strong sharing of green banking approaches in Libya to enhance sustainability development in Libya?”

The question aims to explore the willing and viability of the banking sector in Libya to be involved in the governance of sustainability to promote and develop soft enforcement mechanisms that can support economical, sociological and environmental efforts towards green sustainability establishment.

In other words, this research is conducted in an attempt to answer the following sub-questions that may address the major question as follow:-

- 1) What is the real status of sustainability patterns in Libya?

- 2) What are the major obstacles facing sustainability development progress in Libya?
- 3) Could this patterns be included and merged with the appointed present efforts to fulfill the desired requirements of UN standards and measurements?
- 4) Is there a structurally definite green financing strategy in Libya towards green sustainability establishment?
- 5) What about the real state of the banking sector participation in this strategy?
- 6) What are the main activities of banking in green financing issue?
- 7) What are the prospective plans in relation, either for Libyan government or banking sector?

1.5 Research Hypotheses .

According to the nature of the study, Research Problem, research questions and objectives. Study Hypotheses could be formulated as follow:-

H1: There is no significant difference in the mean score for the level of Libyan banks knowledge, implementation and practicing of "Green Finance" policies.

H2: There is a statistically significant relationship between Libyan government policies and banks practices concerning sustainable development financing during the last three decades.

H3: There is a statistically significant relationship between the level of prior knowledge about the Green Finance and the level of investing and implementation in Libyan Banks.

1.6 Research Objective.

Relaying on the now being based sustainability mainstreaming activities in Libya evidenced by the analysis of the literature on incorporating social and environmental sustainability in the banking field in Libya, and in relation to the achieved progressions all over the majority of worldwide countries concerning the green finance issue, it seems that Libya has a special status that should to be carefully investigated. So, the main objective of this study that could be addressed here is to explore if Libya, the country case study, has a governance framework for sustainability enforcement, and to evaluate the limitations of adverse social and environmental impacts through green financing.

This main objective may be explored through studying the interaction between the state of the current financial system and sustainable value in banking sector in Libya. This could be done by examining tensions between the financial community and business actors that may provide barriers for sustainability investments.

Under the previously mentioned main objective of this study, four minor objectives could be summarized as follow:

- 1) Assessment of the real status of Libya in relation to sustainability issue.
- 2) Assessment of the real status of the relation between sustainability development and banking activities.
- 3) Exploring the major obstacles facing sustainability development correlated to banking policies.
- 4) Reporting the green finance policies, activities and trends either in the past, present or in future in Libya.

1.7 Study Importance.

Importance of the present study emerged from being:

- 1) It will be devoted mainly to explore the nature, forms, tools and mechanisms of sustainability practices in Libya.
- 2) It will make to extend the line of research in the above mentioned issue and identifying the relationship between now being sustainability activities and future strategies both of government and banking sector.
- 3) According to the collected literature review manuscripts, it is noticed that attended researches on behalf of Libyan green financing activities are scarce, so this research will represent a transitional step in this research field.
- 4) May provide policymakers with a framework that help to design and improve strategic development policies.
- 5) Since this study will be applied on the Libya, it will represent a good model for the fore coming studies that will be done later.
- 6) May represent a conceptual and basic model for green financing research line especially in the developing country economic model like Libya.

- 7) On an academic level, the review of the literature revealed the need for this research to cover part of the gaps for this topic on both a global and national level.

1.8 Study Organization.

The present study will be organized as to include seven main chapters that will be classified as follow:

Chapter (1): Introduction.

(Will include the research problem, questions, objective, importance and organization in addition to case study description)

Chapter (2): Sustainability and sustainable development.

(Will include theoretical concepts, terms, definitions, history strategies, challenges and risks of the sustainability).

Chapter (3): Green Finance and Sustainability.

(Will include theoretical concepts, terms and definitions of the main research topics i.e green finance and sustainability, in addition to their correlations and interchangeable issues such as economical, ecological and social factors either globally and in Libya)

Chapter (4): Libyan banking system and its role in sustainability.

(Will include the past and present patterns of sustainability in Libya, history, construction and characteristics of banking system in Libya, in addition to banking system role in sustainability and green financing in Libya. Lastly, the state of green financing in Libya in present and in future).

Chapter (5): Methodology: Clarify the method of data collection and statistical methods for analysis.

Chapter (6): Data analysis and results.

(Will describe tools, programs, equations and models used to analyse data output collected via questionnaire. Additionally, will represent and comments on primary results lied out from the statistical process).

Chapter (7): Discussion and Recommendations.

The results of the study and the vision for its implementation and recommendations for the importance of Libya's adoption of the green financing strategy.

Chapter 2

Sustainable Development

1.1 Introduction

Sustainable development is a socio-economic term dealing with the development of tools of production in ways that do not lead to the depletion of natural resources to ensure the continuation of production for future generations (meeting the needs of the current generation without wasting the rights of future generations). So, the domain area of the process of sustainable development is not confined to the environment with its human components, plants, animals, fertilizers and air, including renewable and non-renewable sources of energy. Since many of these resources are non-renewable resources in the sense that they are decreasing or depleted, especially the energy, which is almost needed more than the day before. The progress in industrial sector had the greatest impact on increasing the demand for energy and raw materials. That in turn led to air pollution and warming. Consequently, the planet is threatened with rising temperatures, melting snow in the poles and sea level rising, which threatens to flood large areas of land. For these reasons, the major industrialized countries have been alarmed to the importance of preserving the environment, including the atmosphere, because of the multiplicity of sources of pollution that damage the environment.

In other words, an ecological disruption was mostly evident as all forms of economic growth and human activity cause stressed the natural resources of the planet. Consequently, people where they are part of the system - nature - begun to re discover the outcome risk after centuries of industrialism and urbanization. But on the other hand, the positive outcome of this situation was the global acceptance that the economic drawback and environmental harm was a confirmation to the limitation of development. Through the late decades of the past century, the response of the international community was intense since the two individual fields (environment and economic development) were viewed as interdependently intertwined.

All those issues and others enforces countries to limit pollution and promote the principle of sustainable development. This efforts were organized by the United Nations activities and declarations on sustainable development calling for the

definition of universal goals that ultimately aimed to integrate the economic, environmental and social components of sustainable development in a balanced way.

The present chapter particularly aims to provide a comprehensive presentation of sustainable development concept, history, functioning, challenges and risks.

2.2 Concepts and History.

By its meaning, Sustainability could be defined as the possibility that humans and other forms of life flourish on Earth forever(John R. Ehrenfeld,2009).

Sustainability or Sustainable development has been commonly defined as “Economic and social development that meets the needs of the current generation without undermining the ability of future generations to meet their own needs” (Brundtland Report, WCED 1987, p. 43). This definition brought together what is now known as the three pillars of sustainable development; economic, social and ecological development under one societal goal of sustainability.(Howarth, 2012).

Recently, scholars suggest a change in the definition of sustainable development to be "Development that meets the needs of the present while safeguarding Earth’s life-support system, on which the welfare of current and future generations depends" (Griggs et al., 2013).

This definition implies two main concepts: firstly, the concept of 'needs', in particular the essential needs of the world's poor, to whom overriding priority should be given; and secondly the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs.(Paul,2008).

Conceptually, Sustainable development is about integration: developing in a way that benefits the widest possible range of sectors, across borders and even between generations.(Strange,2008).

According to the UN General Assembly, the concept outlined and make attention towards two important meanings:

1st.: The well-being of the environment, economies and people are firmly linked.

2nd.: Sustainable development involves co-operation on a global scale.

2.2.1 Historically

Starting by 1960s until now, sustainability concept go pass through several nomenclatures , terms, actions and practices, (Figure 2.1). The following section will discuss step wisely this time lined actions as follow:

During the year 1968, a group of scientists, economists, national and international civil servants, and industrialists representing a fifty three countries founded a think tank of what is known as " Club of Rome" loaded with a heavy background of the over-exploitation of natural resources that accompanied economic and demographic growth. They considers the complicated problems facing industrialized and developing societies. By 1971, this private international association sounded an urgent alarm through publishing an issue under the title: 'The Limits to Growth'. The later article addressed that economic development as being incompatible with the long-term protection of the planet.(Kumar,2017).

During the 2nd. half of the past century, the foundation of the concept of Sustainability and Sustainable Development was emerged through a multi-disciplinary approaches where correspondents have tried to modulate an agreement on how to tackle the "burning issues" of the 21st Century: poverty, increasing inequality, environmental and human health degradation.(Bâc Dorin Paul,2007). This action was positively enforced especially where the concept of environmentalism as a concept becomes sounded after the pollution resulting from the industrial era and economic changes.

During this time period, environmentally, the world had received several economic and environmental changes through the economic recession and the pollution that resulted before where ecosystem was troubled due to climate changes that alter natural properties as for example increased weather temperature and conditions, sea-level rise and floods due to melting icecaps, and the deterioration of different ecological species (Caradonna, 2014):

Figure (2.1): Showing main Sustainable Development Strategies

Source: Designed by researcher based on different reviewed literatures and references.

Sustainable Development The History

During 1970s

- By 1971, the private international association "Club of Rome" published an issue under the title: 'The Limits to Growth', which addressed the economic development as being incompatible with the long-term protection of the planet
- The main ideas of the Sustainable Development concept were structured and formulated during the "Conference on the Human Environment" (1972), this action was the first truly international trial exclusively devoted to environmental issues.
- The term sustainable development came into prominence in 1980, when the International Union for the Conservation of Nature and Natural Resources (IUCN) presented the World Conservation Strategy (WCS) with "the overall aim of achieving sustainable development through the conservation of living resources".

During 1990s

- Convergence of three pillars (economic development, social equity and environmental protection)
- United Nations Conference on Environment and Development addressed the first steps towards initiating Sustainable Development across local, national and international levels .
- Rio + 20 conference addressed strategy that "should contribute to eradicating poverty as well as sustained economic growth, enhancing social inclusion, improving human welfare and creating opportunities for employment and decent work for all, while maintaining the healthy functioning of the earth's ecosystems"

During 2000s

- Establishment of the UN Millennium Development Goals (MDGs) as the biggest movement that were packaged in a set of eight understandable goals.
- The MDGs were established between the years 2000 and 2015 and the SDGs were a continuation of the MDGs building on their principles between the years 2015 and until 2030.
- G20 summit was hosted by China during 2016 as to discuss economic and financial issues, the global governance.

The main ideas of the concept were structured and formulated during the "Conference on the Human Environment" (1972), the event that has been attended by 113 states and representatives of nineteen international organizations. This action was the first truly international trial exclusively devoted to environmental issues. Where, a group of twenty seven correspondents articulated the relations between environment and development issues stating that: "Although in individual instances there were conflicts between environmental and economic priorities, they were intrinsically two sides of the same coin" (Vogler, 2007, p. 432).

During that time, the United Nations Environment Program (UNEP) was established and has been involved in numerous global conferences since then (Doyle, Mc Eachern and Mac Gregor, 2015; Caradonna, 2014). Where the mission of this newly formed organization is: "to provide leadership and encourage partnership in caring for the environment by inspiring, informing, and enabling nations and peoples to improve their quality of life without compromising that of future generations".(BâcDorin Paul,2007).

The term sustainable development came into prominence in 1980, when the International Union for the Conservation of Nature and Natural Resources (IUCN) presented the World Conservation Strategy (WCS) with "the overall aim of achieving sustainable development through the conservation of living resources"(IUCN, 1980).

The broadcasting of the sustainable development concept since this time has begun in different political callings "through rising public concern in the developed countries over the new and alarming phenomenon of global environmental change, and in some ways it replaced fears of nuclear war that had prevailed in the early 1980's" (Vogler, 2007):

Till that time, which is coincident with the involvement of the United Nations (UN), the term 'Sustainable Development' was first introduced where it means "development that meeting the needs of the present without compromising the future generation's ability and share to meet their own" in the World Commission on Environment and Development in the Brundtland Report in 1987 (Caradonna, 2014; Jabareen, 2008) that introduced the need for the integration of economic development, environmental protection, and social justice and inclusion.(Quick Guide,2015).

The above requirement was approved and translated into documentary by the United Nations Environment Program (UNEP) through UNEP's concept of SD that was articulated and popularized as to encompass: (Tolba, 1984a).

- 1) Help for the very poor, because they are left with no options but to destroy their environment.
- 2) The idea of self-reliant development, within natural resource constraints.
- 3) The idea of cost-effective development using nontraditional economic criteria.
- 4) The great issues of health control, appropriate technology, food self reliance, clean water and shelter for all.
- 5) The notion that people-centered initiatives are needed.

Since the early 1990s, sustainable development concept has been come to the front of global development paradigms (Lele, 1991) That calls for convergence of three pillars i.e economic development, social equity and environmental protection (Baker, 2006). aiming for meeting the “needs of the present without compromising the ability of future generations to meet their own needs”.

Since then, environmental health and economic development were not seen as an opposed or contradictory elements and were conjoined together under the umbrella of the new term Sustainable Development (Jabareen, 2008). Additionally, a series of such meetings were hold to justify the rights of people to adequate food, to sound housing, to safe water, to access to means of family planning. The recognition to revitalize humanity’s connection with Nature, led to the creation of global institutions within the UN system (Stofleth,2017).

In 1992, Program of action called Agenda 21 was signed during the United Nations Conference on Environment and Development, that addressed the first steps towards initiating Sustainable Development across local, national and international levels as the world moved into the 21st century. (Strange and Bayley,2008).

In The United Nations Conference on Sustainable Development (UNCSD), under the theme "The future we want," the Rio + 20 conference is considered one of the most important events of the 21st century when it aims to seek consensus on a number of issues, particularly on Sustainable Development Goals after 2015, the year of

completing the Millennium Development Goals. An important strategy has been recognized as one that “should contribute to eradicating poverty as well as sustained economic growth, enhancing social inclusion, improving human welfare and creating opportunities for employment and decent work for all, while maintaining the healthy functioning of the earth’s ecosystems” (UNCSD, 2012).

Although sustainable development was the main topic of the Rio conference, there was disagreement about its meaning and implications. Since the UNCED process attempted to provide guidance in implementing sustainable development by laying out a set of principles and a plan of action based on the concept. Indeed, Rio was less about debating the definition of sustainable development than it was about developing approaches to ensure its implementation (Prizzia, 2007).

Parallel to that concern, some voices call for “implementing the principles of equity and living within ecological limits can only be accomplished if social, political, and economic systems have the flexibility to be redirected toward sustainability as well as integrated with each other and the environment” (Prizzia, 2007).

"Connecting Environment and Development" came to address the international event that represent one of the indicative actions of North–South bargaining at the UN, in which demands for international action on the environment were set against claims for additional development aid and technology transfer” (Vogler, 2007).

World Summit on Sustainable Development (2002) in Johannesburg, South Africa, came to confirm the attitude of the UN and national and international organizations towards sustainable development either as a concept, as a goal and as a movement that is considered as a mission of countless international organizations, national institutions, corporate enterprises, “sustainable cities,” and locales.(Kates,2005).

During this Summit, a Program of action called Agenda 21 was signed, that put another stone in the building towards initiating Sustainable Development across local, national and international levels as the world moved into the 21st century.(Strange,2008).

Then, the UN Millennium Development Goals (MDGs) was established as the biggest movement that were packaged in a set of eight understandable goals (Sachs, 2012)

and considered as the base foundation for the widely known Sustainable Development Goals (SDGs).

The MDGs were established between the years 2000 and 2015 and the SDGs were a continuation of the MDGs building on their principles between the years 2015 and until 2030 (Griggs, Stafford-smith, Gaffney, Rockstrom, Ohman, Shyam-Sundar, Steffen, Glaser, Kanie and Noble, 2013; Sachs, 2012).

According to what has been described previously, urgency of sustainability led it to be put first on the political agenda by the UN and national governments, that resulted in world leaders in 2015 agreed to adopt the SDGs as part of the resolution for sustainable development towards 2030 (United Nations, 2015).

As a type of follow up, In 2016, G20 summit was hosted by China as to discuss economic and financial issues, in addition to the global governance and pressing current events.(Qian Wu,2016).

In Conclusion, one can say that, in 1987, the Brundtland Report was published by the UNWCED, aiming to create a sustainability route. In 1992, the “Earth Summit” (Rio+92 meeting) was held in Rio de Janeiro, Brazil to turn the sustainability goals mentioned in the Brundtland Report into step to step plans and action points (UNCSD, 2012). The Rio+92 meeting, organized by the UNCED secretariat, 172 governments and 2,400 representatives of non-governmental organizations (NGOs) makes together to emanate a major strategy i.e “*eco-efficiency.*” Eco-efficiency simply incorporates ethical, environmental and economic considerations into the linear production model to achieve sustainability, *doing less bad* (McDonough & Braungart, 2010).

Sustainable development from an Islamic perspective

Sustainable development is not a new concept to Islam, sustainable development principles have existed for centuries in the Holy Qur'an and the Hadith.(Aburounia, 2005)Islam is not just religion; it represents an entire sense of community and a way of life. It defines both a world view and a guidance framework for actions in all spheres of life (Ahmed, 1988).

Sustainable development is not a new concept to Muslims. The Qur'an and the Hadith provide the framework for the spiritual and physical welfare of humanity.

There are over 500 verses in the Qur'an giving Muslims guidance on matters relating to the environment and how to deal with it, and there are numerous examples from the prophet Mohammed's life (PBUH) and his sayings, which provide a model for justice and equity (Hassan,2002).

2.3 Sustainable Development Goals

Sustainable Development Goals (SDGs) posted as a universal set of goals, targets and indicators that UN member states have committed to use to frame both domestic and international development policies. These goals are diagrammatically represented in the following Figure (2.2):

Their implementation considered to be a continuation of the Millennium Development Goals (MDGs) that has been addressed at the beginning years of the present century and aims not only to protect the planet, but also to promote prosperity.

This foundation is relying on the belief that all future strategies will be designed to address societal and environmental challenges that contribute to build economic growth. According to the Global Opportunity report issued by DNV GL, SDG number eight, continuous work and economic growth is the goal (DNV GL, 2016).

Figure (2.2): showing Sustainable Development Goals (SDGs) U N The Sustainable Development Goals Report, New York, 2017 (Designed by researcher)

Sustainable Development Goals (SDGs)

- G1: End poverty in all its forms everywhere.**
- G2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture.**
- G3: Ensure healthy lives and promote well-being for all at all ages.**
- G4 Ensure inclusive and equitable quality education and promote life-long learning opportunities for all.**
- G5: Achieve gender equality and empower all women and girls.**
- G6: Ensure availability and sustainable management of water and sanitation for all.**
- G7: Ensure access to affordable, reliable, sustainable and modern energy for all.**
- G8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.**
- G9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.**
- G10: Reduce inequality within and among countries.**
- G11: Make cities and human settlements inclusive, safe, resilient and sustainable.**
- G12: Ensure sustainable consumption and production patterns.**
- G13: Take urgent action to combat climate change and its impacts.**
- G14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development.**
- G15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.**
- G16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.**
- G17: Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development.**

The SDG process provides a unique opportunity to create a unified framework for enhancing human prosperity in an era of growing evidence of rising global environmental risks (Glaser, 2012). This could be achieved through activation of the strategic target of SDGs to change the economy pathway from a carbon fueling to a more sustainable economy. For example, the finance sector should play a central role in this shift, by helping to facilitate investments in renewable energy and efficient technologies (Richardson, 2009).

It is known that achieving sustainability is the main objective of sustainable development (UNESCO). Also, it could be considered as the model for development across the globe in the long term, the goals of sustainable development are achieving environmental and social developments in a symmetrical way, while protecting the environment.

Empirical evidence ascertained that the SDGs fits well into the three spheres of sustainable development, as it is a system that supply with resources needed for manufacturing, while promising opportunities for economic development which will in turn improve the quality of life (Ellen MacArthur Foundation, 2013; 2015; Murray, Skene & Haynes, 2015; Wijkman & Skånberg, 2015). The main features that ensures implementation and achievement of sustainability goals are (1) the closed material loops and (2) the designing of products with the possibility of reusing them in mind (Murray, Skene & Haynes, 2015).

2.4 Sustainable Development Dimensions.

According to the intentional and commitments of the UN institutes, national and international, governmental and civil organizations; after 1987, academic and non academic literatures, policy makes, decision makers involved the three pillars concept of the sustainable development into sustainability wizard so as to refer to the economic development, social development and environmental protection (U.N. General Assembly).

Those three main areas or domains of sustainable development (Shown in Figure 2.3) could be identified and discussed in details as follows (Patr, 2003) :

- 1- Economic domain: including growth, capital adequacy and economic justice.
- 2- Social domain: That includes equality, cultural diversity and sustainability of institutions.

3- Ecological domain: including energy, climate changes, pollution and biodiversity.

Economic Domain:

Many authors view stated that economic development, wealth sharing and justice has no fair distribution either on the national or international levels between different countries and north and south. This currently existing world economic systems for sure and their correlations necessitate an integrated approach among different strategic plans clarifying the standpoints to pave the way for a long range responsible development in addition to guaranteeing that no state or society is falling behind(Abu Joudeh,2011).

Figure(2.3): Showing the three main areas or domains of sustainable development.



Source: CTIP

Environmental Domain:

Preserving natural and environmental resources for future generations constitute the axial issue of the Brandtland report,1987. However, to achieve this goal, this requires finding economically sustainable solutions with the aim of limiting the consumption of resources, decreasing pollution and preserving natural resources. Sustainability development programs should to make what comply to this needs by setting laws, roles, legislations and an effective policies that enrolled into the actions of different localities like states, governments, institutions and UN organizations(Abu Joudeh,2011).

Social Domain:

The report of the international committee for development and environment (Our future together – UN) confirmed the tight correlation between economic and social development while preserving the environment. Also, it indicated that there is no way to implement a sustainable development strategy without taking into consideration the requirements of economic, social and environmental development (Abu Joudeh,2011). According to this simplest view, social development for countries around the world represent an important corner stone among the three pillar mechanisms of sustainability development either on the local, national or international level.

This mechanisms ought to guarantee work opportunities, food, education, energy, health care and clean water, housing for all people whatever their locality, gender, ethnicity, religion, culture,.....etc. Meeting all these needs for any person in any community means ensuring the proper respect for social solidarity in spite of cultural and social diversity, keeping the workers' rights and enabling all the individuals to play their role in determining their future.

Many technical and political difficulties in integrating social, economic and environmental objectives and in adequately addressing the intergenerational dimension of sustainable development. In general there is little documented experience in most countries of developing such mechanisms and there are no tried and tested methodologies.

Integrating and making trade-offs between those three sustainable development objectives also requires strong legislative and judicial systems that are often very weak in developing countries.

Both of global (e.g. climate change and ozone depletion), national (e.g. economic, fiscal and trade policy or legislative changes) and the local level challenges need also to be addressed. The impacts of decisions taken at different levels need to be taken into account in an integrated and coherent way. Also, their consequences and implications across different sectors and for different interest groups must be considered.

All these issues need to be taken into account in settling a track towards an integrated sustainable development that require a strategic approach (OECD, 2001).

2.5 Sustainability communication

Focus on sustainability has increasingly been reflected in firms' external communication, which includes all contact with stakeholders.

Sustainability communication is not only important to attract the right investors, but is also tied to firms' internal governance structures and implementation of ESG factors.

The following description introduces means of communicating and an overview of the most acknowledged and commonly used sustainability initiatives today. Today, there is an extensive range of initiatives by non-profit organizations, global bodies and networks that firms can adopt in their efforts to become a truly sustainable company. However, there is no standardized system for sustainability communication which is sufficiently adopted by both firms and financial institutions. A range of attempts have been made to solve the problem, including different kinds of initiatives like CDP, Integrated reporting, UN PRI and UN Global Compact.

A common approach to external communication is consideration of sustainability issues in a company report as a part of making and assessing corporate sustainability strategies.

Integrated reporting is here a combination of a traditional, financially oriented annual report with the material parts of a corporation's sustainability report, showing the relationships that exist between the different dimensions of performance (Eccles & Krzus, 2014).

2.6 Sustainable Development Strategies.

As practical practice, Sustainable Development should to be good managed, frame worked, enhanced and monitored. Each of the previously mentioned issue should to be, strategically organized and recognized. Summary of this strategies may be stated here diagrammatically represented in following figure (2.4).

2.6.1 Definition:

According to what has been mentioned in the OECD guidance, strategy for sustainable development could be defined as to be: "A co-ordinated set of participatory and continuously improving processes of analysis, debate, capacity-strengthening, planning and investment, which integrates the economic, social and environmental objectives of society, seeking trade offs where this is not possible" (OECD,2001).

A set of principles including different desirable processes and outcomes are likely to help ensure success of strategies for sustainable development have to be settled such as: local ownership of the strategy process, effective participation from all levels, and high-level commitment. In addition to the importance of convergence and coherence between different planning frameworks, integrated analysis, and capacity development.

Figure (2.4): Showing main Sustainable Development Strategies



Source: Designed by researcher based on different reviewed literatures and references.

2.6.2 Functioning:

In practice, effective and efficient strategy for sustainable development is devoted to:

- Brings together the aspirations and capacities of government, civil society and the private sector to create a clear vision for the future, and to work stepwisely and progressively towards achieving it.
- Identify and builds on 'what works', improves integration between approaches, and launches a framework for choiring where integration is not possible.
- Focusing on what is realistically achievable.
- Modulate comprehensive understanding and positioning comprehensive actions whatever\whenever needed.
- Mainstreaming sustainability concerns, focusing on only a few priority objectives.

- Imply initiating completely new or stand-alone strategic planning projects in rare occasions.

2.6.3 Characteristics:

Dynamic strategies enables bringing existing initiatives closer to an effective strategy for sustainable development might involve complementing them with a broad ‘umbrella’: a vision and set of co-ordinated mechanisms and processes to improve their complement, smooth out inconsistencies, and fill gaps when needed.

Strategy flexibility helps many countries taking the approach of building on whichever strategy models have been found useful either development plans, poverty reduction strategies or action plans, national green plans, decentralized planning and consultation processes – or the national exercises that have proliferated over the last two decades connected to international agreements.

In addition, sustainable development strategy flexibility with different circumstances configured it as to be viewed as a system comprising components as to met the variable forms of conditions of different countries and capacities, this components may include:

- Assigned multi-stakeholder and negotiation context team at national and decentralized levels, with links between them.
- A shared vision and set of broad strategic objectives.
- A set of mechanisms to pursue those objectives in ways that can adapt to change (notably an information system; communication capabilities; analytical processes; international engagement; and co-ordinated means for policy integration, budgeting, monitoring, and accountability).
- Principles and standards to be adopted by sectors and stakeholders, through legislation, voluntary action, market-based instruments, etc.
- Pilot activities, to generate learning and ownership.
- A secretariat or other facility with authority for co-coordinating these mechanisms.
- A mandate for all the above from a high-level, central authority such as the prime minister’s office and, to the extent possible, from citizens’ and business organizations.

2.6.4 Assessment

Flowing up and assessment is a principal component of strategies. That it mean, processes (such as the quality and coverage of participation and information systems),

outcomes, and the changing baseline should be surveyed and covered. Taking into consideration that it is not a separate exercise. But, process and outcome indicators need to be considered on a regular basis at the same time as vision and objectives.

Their existed somewhat systems such as International reporting and information-sharing (as part of a harmonized international system of monitoring of all IDGs) that must be agreed before introducing strategy into action.

2.6.5 Support:

In general, strategy support provides opportunities for countries to explore sustainable development options and in sometimes influence strategy process, its timing, and its outcomes — and replacement of strategy with another.

Support not confined in financial and technical aspects, but may include external partners strategies also that may play a catalytic and supplementary role, using and developing local capabilities, and methodological support. This is a challenging approach, which will require changes in the policies, procedures and capacities of development cooperation agencies as a supporter.

Particular commitment for any strategic framework that has its conceptual or institutional origins outside the country in question, so as to improve coherence between international frameworks and to strengthen and improve synergies with existing national strategies. For example, some appointed strategic planning approaches such as National Conservation Strategies and Poverty Reduction Strategies have had financial and technical support from development co-operation agencies.

In some cases, development agencies can communicate international stakeholders (such as external policies and institutions interested in trade and investment) as to compromise some situations of strategies for sustainable development prepared by individual developing countries.

2.7 National Sustainable Development Strategies.

Conceptually, national sustainable development strategy (NSDS) could be defined as: “A coordinated, participatory and iterative process of thoughts and actions to achieve economic, environmental and social objectives in a balanced and integrative manner.”

NSDS practicing mainly needs five objects as to progressively activated, those are:

- Country ownership and commitment.

- Integrated economic, social and environmental policy across sectors, territories and generations.
- Broad participation and effective partnerships.
- Development of the necessary capacity and enabling environment.
- Focus on outcomes and means of implementation. (UNDESA (2002)).

In general, countries need to have a vision of progress and where they want to go in the future. Such a vision must reflect the country's history and core values and be widely shared among the public as well as economic and other actors across the political spectrum. They also need multi-stakeholder assemblies (including representatives of government, business, labor and civil societies) to examine available policy options and translate the broad vision into specific short and long term objectives at the national and local levels (OECD, 2001).

It should be mentioned that establishing NSDS is one of Rio commitment and one of the seven international development Goals. i.e. at the 1992 UN Conference on Environment and Development held in Rio, governments made a commitment in Agenda 21 to “adopt national strategies for sustainable development which should build upon and harmonize the various sectoral, economic, social and environmental policies and plans that are operating in the country. Its goals should be to ensure socially responsible economic development for the benefit of future generations”.

Then, OECD's “*Shaping the 21st Century*” strategy (1996) called for the *formulation and implementation* of a sustainable development strategy in every country by 2005. This is one of the seven International Development Goals (IDGs) agreed by the international community.

Where in 1997, the Special Session of the UN General Assembly met to review progress since the Rio Summit, and noted that there had been continued deterioration in the state of the global environment under the combined pressures of unsustainable production and consumption patterns and population growth. This assessment led to set a target date of 2002 for *introducing* NSDS.

2.8 Sustainable Development Challenges

Due to the increased development progress in developing countries over the past thirty years, many trends all over the life have been altered. Such trends are represented by; life expectancy that has been risen by more than 20 years; infant

mortality rates have been halved and primary school enrolment rates have doubled. Food production and consumption have increased around 20% faster than population growth.

Although, there were a huge and prominent exerted efforts, there still many challenges that needs to be faced among sustainable development plans and actions. The most peculiar broad area- wide challenges that could be addressed here are:(G8,2008).

- Macroeconomics, Population Dynamics, and Planetary Boundaries.
- Poverty eradication and peace-building.
- Challenges of social inclusion: gender, inequalities, and human rights.
- Early childhood development, education, and transition to work.
- Health For All.
- Low-Carbon Energy and Sustainable Industry.
- Sustainable Agriculture .
- Forests, Oceans, Biodiversity and Ecosystem Services.
- Smart, Sustainable and Resilient Cities .
- Good Governance of Extractive and Land Resources.
- Global Rules and Mechanisms for Sustainable Development.
- Redefining the Role of Business for Sustainable Development.

The pace of improvements in income levels, as well as in health and education, has exceeded that in industrialized countries. In spite of this remarkable progress, there remain many complex and urgent challenges for sustainable development that could be represented as follow: (OECD,2001).

Extreme poverty:

Where it badly affect the lives of one out of every five persons. Since diseases, family breakdown, crime, and the use of narcotic drugs, represent the social features associated with poverty.

Population growth:

When one know that over 95% of the estimated increase of 2 billion people over the next twenty years will live in the developing world. This in fact represent another form of consumption levels.

Political instability: Where inequality of income both within and between countries, marginalization of ethnic and other minorities contribute to this instability.

Sometimes instability lead to violent conflict, hinders socio-economic progress in many countries and regions.

HIV-AIDS and malaria:

The most serious diseases which erode the productive capacity and social wealth of nations where:-

HIV has already had a profound impact on existing rates of infant, child and maternal mortality.

Nearly 500 million people suffer from acute malaria a year, of whom 1 million will die.

Marginalization.

Combined weight of slow economic growth, a heavy external debt burden, corruption, violent conflict, and food insecurity. Also, actions taken in the North such as trade protectionism and global warming. All the above factors makes countries struggling under marginalization from the global economy.

Environmental deterioration:

Where Pollution and Natural resources depletion (soil erosion; loss of forests, habitats, biodiversity and depletion of fish stocks) are clearly evident in most developing countries.

Global climate change and current patterns of production and consumption are all raise questions about the continued capacity of the Earth's natural resources.

Declining of Earth's ecosystems and renewable natural resources by over 30% over the last 30 years while demands on them have increased by 50%.

Although their current contribution to the problem is small. developing and the least developed countries, are expected to be the most vulnerable to the impacts of global climate change.

There is also a strong scientific consensus that global warming- the most prominent complex problem- is induced by human behavior, predominantly by fossil fuel use and, to a smaller extent, by changes in land use and deforestation. The extent of future global warming will therefore primarily depend on successfully using the sustainability levers by reducing the energy intensity of GDP growth and the carbon intensity of energy, assuming that GDP per capita and population continue to grow (Raupach et.al., 2007). These challenges must be faced by local, national and global institutional systems (OECD,2001). All the above individual challenges could be categorized and grouped according to management style as the following

Figure (2.5): Showing Sustainable Development Challenges categorized according to their management pattern.



Source: Designed by researcher based on different reviewed literatures and references.

2.8.1 Decentralization and globalization

Practically, for the first time when dealing with Decentralization and globalization trends, it seems that they may reinforce or contradict each other. This confusion is actually not true since most social and environmental issues are most effectively dealt with at a decentralized level, many are linked to globalization and require global rules governance systems. But, when planning for sustainable development strategies it should to determine which issues are best addressed at which level, ensuring coherence between policy options pursued at different levels, and finding ways of keeping local people involved even where the policy agenda is best addressed at the national or international level (OECD,2001).

2.8.2 Challenges Confronting.

Based on the sustainable development delivered definition of Brundtland Report, the main core of the SD concept is the belief that over the long term, social, economic and environmental objectives should be complementary and interdependent in the development process. On the base of this belief, the Rio Summit in 1992, established sustainable development as the guiding vision for development in both industrialized and developing countries, and for international development co-operation.

When talking about SD challenges confronting, three main objectives should be taken into account as follow: (OECD, 2001).

- 1) Integrating between economic, social and environmental objectives.
- 2) Reflection of each country's unique circumstances.
- 3) Recognizing importance of governance

Integrating between economic, social and environmental objectives.

Environmental issues are not only the targets of sustainable development, but the three dimensions (economic, social and environmental objectives of society) were the actual principals. Work on those three dimensions should to be balanced, integrated and mutually supported wherever possible through policies and practices, and making trade-offs where it is not possible taking into account the options and needs of future generations..

Developing approaches which reflect each country's unique circumstances

Since the diversity of the social, economic and environmental challenges faced by developing countries are a reflection of the approaches of sustainable development. This explain why there are many interpretations of sustainable development, deriving from different values and interests in different societies.

This means that the relative priority given to the three dimensions of sustainable development will vary in individual countries, societies, cultures and situations, and over time. Thus, while sustainable development is a universal challenge, practical responses can only be defined nationally and locally. For example, in some countries, sustainable development is defined as holistic development which involves six dimensions: economic, social, environment, politics, technology and knowledge, and mental and spiritual balance.

While in others, there is a particular emphasis on political dimensions (e.g. good governance and participation) and on the cultural and spiritual identity of diverse indigenous peoples

Recognizing importance of governance

Areal fact should be considered here, i.e. achieving sustainable development is essentially a task of transforming governance. The later aspect means reaching agreement on how to address the challenges that countries face requires a degree of mass grouping and respective negotiation. The ability to reach consensus on how the challenge of sustainable development can be met will depend on factors such as peace and security, prevailing economic interests, political systems, institutional arrangements and cultural norms.

However, it must be conceded that all these objectives cannot be done all at the same time, cannot be pursued successfully simultaneously, and cannot be realized easily because of limited resources and many other factors that hamper smooth implementation (Reyes,2017).

Furthermore, and from the economic standpoint of view, economic difficulties may hinder the pathway of confronting challenges. So, the finance sector will play a central role in this shift, by helping to price climate risks and facilitate investments in renewable energy and efficient technologies (Richardson, 2009) .

As a detailed example, some of the goals will foster especially large investments. One of these goals is SDG 13, climate change, being one of the most pressing, global issues. The threat of a warmer climate has led the discussion about economic development to be complemented by the transition to a low carbon society. In order to make this shift to a green economy, estimated investment needs for reaching the two-degree target will reach at least \$1 trillion each year by 2030 (Zuckerman et al. 2016). In comparison, an estimated total of \$93 trillion is needed for infrastructure investments in transport, energy and water systems over the next 15 years to the meet global infrastructure needs to a low-carbon economy (Global Commission on the Economy and Climate, 2014).

If the above mentioned example achieved, investment business is said to be eco-efficient since it reduces the pollution and waste it generates, uses cleaner sources of energy, renewable sources instead of non-renewable sources, thereby reducing the negative impact of its operations on the environment. These are efficient ways of

controlling resource consumption, but the CE offers more effective ways of resource use (Wijkman & Rockström, 2012).

2.9 Risks to SD Management.

Complicated problem of managing SD risk – particularly in situations of transition, is fundamentally difficult, or dangerous.

There is a lot of studies trying to explore the problems that are so complex that they are highly resistant to SD resolution. But, in general; four key characteristics are relevant to the UN operational activities that are usually under discussion.(Tackling wicked problems,2007).

A major public policy review of these complicated problems suggested:

- 1) *Complicated problems are difficult to clearly define, have many interdependencies and are often multi-causal, and are unstable:* This complicated problem considered to be a main cause or source of unsatisfactory development/humanitarian/ security outcomes. Is it a function of unsatisfactory political engagement? Or failed technical projects? Or all of the above, at different levels at different times?. No clear answers for these questions.
- 2) *Attempts to address complicated problems often lead to unforeseen consequences:* Concerning financial issues, financial accountability is not clearly defined even increased efforts exerted. This will resulted in a reduced fore going for risk-taking in scenarios where there are no single or clear answers.(OECD,2012).
- 3) *Complicated problems usually have no clear solution, and effective remedies involve changing behaviors:* In cases of the absence of clarity on the problem statement, there is no definite/ one single solution that can address the problem. The most effective model of engagement may require systemic and behavioral changes as to address the exact problem and consequently the fit solution.
- 4) *Complicated problems hardly ever sit conveniently within the responsibility of any one organization and can be characterized by chronic policy failure:* This aspect reflects on administrative and all policy responsible entities either in Un or other organizations. For example, which UN entity is responsible for managing transitions? Given that the first major calls for systemic change emerged after 1994 and 1995 Rwanda events.(Niland,1995) This example assures that it is hard not to argue that there are chronic policy challenges.

2.9.1 Religious obligation of sustainability.

Qur'anic verses pointed out that everything in the globe and consequently the whole nature body was create in a balanced, justified, fitted, effective by itself and renewable. But, due to the mishandling of resources of that nature surely will lead to a some type of imbalance, the later will in turn negatively affect the human life since the human being represent an individual unit of the nature eco chain. These notes were mentioned in Qur'an (*Al-Rum, 41*). where severe destruction of the land and sea livings would come upon when environment was mishandled.

Concerning renewable source of reward, Imam Al-Bukhari stated; "If a Muslim plants a tree or sows seeds, and then a bird, or a person or an animal eats from it, it is regarded as a charitable gift (*Sadaqah*) for him" (NazimUddin, 2016).

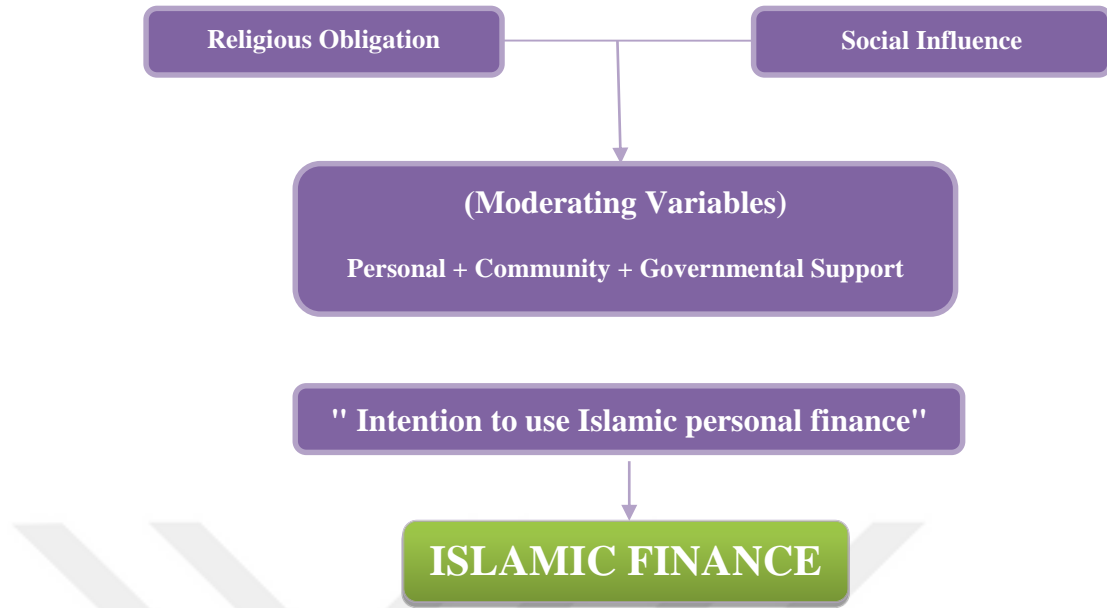
Prophet Mohammad^(s.a.w), stated that "mankind would be rewarded for efforts in improving greenery; making it incumbent on every Muslim to contribute towards such efforts"(*Musnad Ahmad*).

The above mentioned evidences calls for care for all the environment and the forms of life that Allah has created on theearth that includes proper usage of natural resources (Aburounia, 2005).

For the same time, Islam calls for living in harmony with nature, achieving sustainable development, enriching life on earth, and making best use of available resources, stresses on the necessity and significance of environmental protection (Mutahhari, 2014).

All the above mentioned articles and evidences are subscribed under what is called "*The Religious Obligation*". The later term may considered personally, in community and governmentally that in turn may lead with the help of social influence to " Intention to use Islamic personal finance". The lasted concept could be wide spreaded as to cover all forms of Islamic finance streamline. Figure (2.6).

Figure (2.6): Showing Islamic green finance initiatives and co-related influences.



Source: Designed by researcher based on different literatures and references reviewing.

All countries, whether poor, medium or rich, seek to promote sustainable development within them to promote prosperity, progress and economic growth. Sustainable development requires improving the living conditions of all individuals without increasing the use of natural resources beyond the capacity of the planet. Sustainable development is to eradicate poverty by promoting the balanced production and consumption patterns without over-dependence on natural resources such as green financing.

Green financing is a new tool used by governments to achieve sustainable development and to finance green projects that preserve the environment in the context of global climate change, green financing is the use of financial services such as loans, equities, insurance, investments, bonds and others to finance green projects, Environment friendly. The sector has grown in recent years with the aim of improving the overall standard of living, achieving social justice, reducing environmental risks and promoting environmental integrity. Since 2015, global interest in green energy financing has grown rapidly, with investments in green energy reaching an all-time high of about US \$ 298 billion. (Symbiotics, 2017).

Green financing plays a vital role in many countries in the world to promote innovation and green practices in various sectors. It seeks to advance green growth and reduce carbon. Many developing countries face obstacles to attracting capital for green investment due to lack of sufficient awareness and weakness. The technical capabilities of financial institutions, the banking sector is the mainstay of economic growth and green financing projects, banks are seeking to provide loans and green accounts and finance private projects to reduce the effects of carbon emission and conservation of the environment.

So, the policies supporting green SMEs need to overcome key barriers, including knowledge sharing, environmental awareness raising, enhanced financial support, so there are many studies that have shown the role of the banking sector in green financing, in this chapter will present previous studies that show the role of the banking sector in sustainable development through green financing.

2.10 Conclusion

At the end of the present chapter that particularly was devoted to provide a comprehensive presentation of sustainable development concept, history, functioning, challenges and risks. It is obvious that at the concept level, Sustainable development is about integration: developing in a way that benefits the widest possible range of sectors, across borders and even between generations. So, it is not surprised to be put first on the political agenda by the UN and national governments that resulted in world leaders in 2015 agreed to adopt the SDGs as part of the resolution for sustainable development towards 2030. By the way, both of governmental, private sector and social organizations were called for sharing invest in this issue to translate the social responsibility into an actual practices merging the social, financial and economical benefits under the green finance umbrella.

Chapter 3

Green Finance

3.1 Introduction

When talking about green finance, this in other words means mobilization of private funding to sustainability projects. This awareness is almost urgent either for individuals, publics, organizations, governments, nations and international institutions. It should to be followed by an effective commitment and dynamic actions as to meet the hazards incorporated due to ages of pollution, poverty, illiteracy and marginalization.

In this chapter, we will discuss green finance from different sides and aspects such as concepts, definitions, history and different terms and expressions co-related as to show how its involvement will improve the natural environment, solve climate change, economy and social issues. In addition, characteristics of green finance will be discussed in terms of capital, management, stock market and Products and services, drivers of green finance and stakeholder's analysis including borrowers, investors and Partnerships and networks will also be mentioned as it represents the energetic tool of green finance concept. Green finance Initiatives will be considered to discuss its components which include the Global Alliance for Banking on Values (GABV), Islamic Banks and European Initiatives.

Green Finance and Banks are the core topic of this chapter. It will be dealt with in terms of "Green Finance from the Banks' Perspective" that in turn includes the defensive phase, preventive phase and offensive phase. Those three phases were the steps of conversion from refusing till considering banks as sustainable entities. Managing Environmental Risk, risk management, environmental risk, business opportunities, improving reputation, and compliance risk issues will be discussed under the above main topic. International Motives toward Green Finance, the cornerstone of the green finance on the international level with its under titles (International environmental laws and treaties; Initiatives of UN agencies or OECD; National environmental finance policies; International initiatives & standards initialed by business or bank alliance and civil society; Individual bank policies; Significant international standards & initiatives; UNEP Finance Initiative; The Equator Principles; UN Global compact; Carbon Disclosure Project;)will also be discussed.

Finally, Green Finance Standards and Guidelines that help to optimize the green finance process as a whole, and Islamic Perspective towards Green Finance will be presented.

3.2 Concepts and History.

3.2.1 Concepts and Definitions.

In spite of this concept has been mentioned for several years, to date, it has not yet been normatively defined by any international bodies. But as a general concept, Green Finance is a strategy for financial sector and broader sustainable development that is relevant around the world. But the context differs considerably for different countries (UNEP,2016).

As mentioned above, there is no well-established definition of green finance concept. This disruption is rendered to two reasons, first; scarcity of publications connected to the fixed term green finance and second; discrepancies and differences of definitions posted by international organizations and scholars (Lindenberg, 2014).

Simply, green finance could be considered as a bridge connecting environmental industries to financial institutions (Salazar,1998). Moreover, the concept that on the light of it, institutions can find its way to finance environmentally sustainable growth(Arkin, 2017).

Academically, Green finance is often used interchangeably with green investment. But, practically, green finance is a wider concept that include more than direct investments as defined by Bloomberg New Energy Finance and others. Moreover, it includes operational costs of green investments not included under the definition of green investment (Zadek and Flynn, C., 2013).

Green Finance as a context has been boosted to improve the environment and promote economic growth for financial industry. It refers to diverse financial services and products provided by financial institutions for sustainable development (UNEP FI, 2007). It was firstly raised at the beginning of 1990's, when the United Nations Environment Program (UNEP) worked with industrial institutions to develop environmental management strategies (UNEP FI, 2010).

According to the developmental stage of the national and international recognition of the facts behind sustainability issues including environmental, ecological and economical aspects, Green Finance has been given several names and definitions by different institutions throughout the years as banks began to adopt the concept more acceptingly while it had its roots in western countries, which were the first to locality widespread faced by environmental hazards of fossil fuels consumption during industrialization era.

In terms of the typology of banking, "Green Finance" can be considered as a strategy that contributes to the transition from preventive banking to offensive banking (Guo,2005).

But, from the administrative and planning point of view, Green Finance considered as a strategic approach aiming to incorporate the financial sector to be involved in the transformation process towards low-carbon and resource-efficient economies, and in the mainstream of adaptation to climate change.(Schaefer, 2011).

From the sustainability standpoint of view, "Green Finance" is a broad term that can refer to financial investments flowing into sustainable development projects and initiatives, environmental products, and policies that encourage the development of a more sustainable economy (Höhne, 2012).

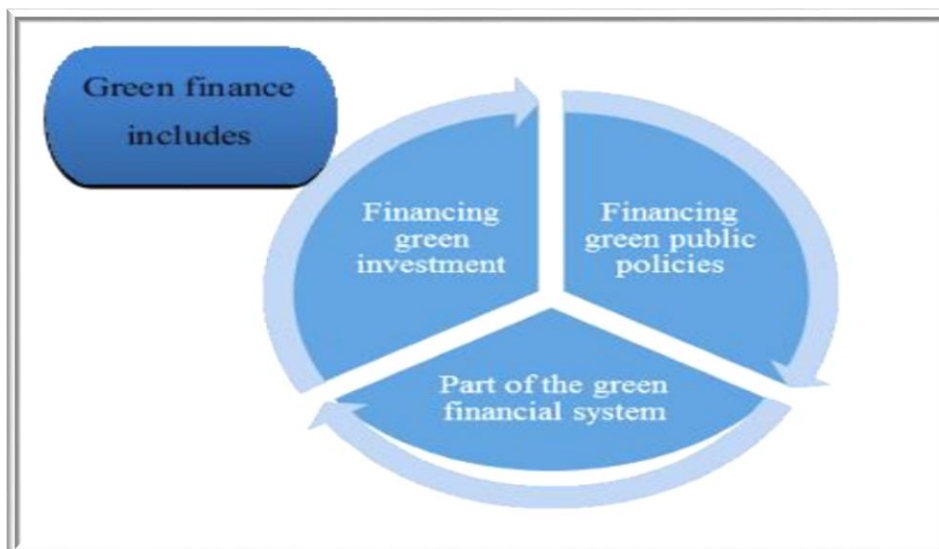
Financially, green finance is defined as financial products and services, under the consideration of environmental factors throughout the lending decision making, ex-post monitoring and risk management, provided to promote environmentally responsible investments and stimulate low-carbon technologies, projects, industries and business” (PWC, 2013).

From administrative and regulatory standpoint of view, Green Finance was defined to be the "basic construct of green credit involving management measures that require commercial banks and other financial institutions to carry out research to deliver products which will play a role in environmental pollution, protect and restore the ecological environment to help in the development and use of new energy sources, green products, and ecological agriculture through providing preferential interest rate loans for enterprises; at the same time limiting the new projects of polluting businesses by applying high interest rates" (Xu, 2013).

From the investment and the environment sustainability standpoint of view, "Green Finance" comprises all forms of investment or lending that take into account environmental impact and enhance environmental sustainability (Böhnke, *et al.*, 2014). Or, in other words, "Green Finance" is evolving to include sustainable natural resource management, inclusive finance, education and other sustainable development criteria identified by the Sustainable Development Goals (SDGs) in the 2030 Agenda.(Kai Yeh,2017).

A more practical and wider and detailed definition of green finance (Figure-3.1) implies financing of public and private green investments (including preparatory and capital costs) in the following areas environmental goods and services (such as water management or protection of biodiversity and landscapes) prevention, minimization and compensation of damages to the environment and to the climate (such as energy efficiency or dams), financing of public policies (including operational costs) that encourage the implementation of environmental and environmental-damage mitigation or adaptation projects and initiatives (for example feed-in-tariffs for renewable energies), components of the financial system that deal specifically with green investments, such as the Green Climate Fund or financial instruments for green investments (e.g. green bonds and structured green funds), including their specific legal, economic and institutional framework conditions (Lindenberg, 2014).

Figure (3.1): Showing green finance wider orientations implying(financing of public and private green investments, public policies).



Source: Designed by researcher based on different reviewed literatures and references.

As mentioned before, up till now, there is no universally accepted definition of green finance, this is rendered mainly to the diversity of priorities of different countries concerning their environmental policy and approaches to implementation. But, generally, we can say that the definition of green finance is a comprehensive definition concerned with financing of investments that provide environmental positive feedbacks in climate change mitigation and adaptation in particular.

Other Related Concepts.

Under the major umbrella of green financing concept, different perspectives have been developed, they are all sharing two main aspects: social profitability (economic activities with social benefit) and economic profitability "monetary benefits" (Kendric, 2004).

The following terms and concepts (showed in the following figure) may be discussed as follow:

Sustainable Finance:

It is defined according to the IFC as "provision of financial capital and risk management products for businesses that promote or do not harm economic prosperity, environmental protection and social" (Conley and Williams, 2011).

Green Economy:

According to UNEP, this term could be handled as a synonym to the green finance model. However, it was defined as "economy that results in improved human well-being and social equity while significantly reducing environmental risks and ecological scarcities" (Ramzy, 2013).

Financial Development:

This term means describing shaping the context for green finance as different sources of capital and financial institutions are particularly varied in different countries. Financial systems in developing countries tend to be characterized by a dominant banking sector, and have large areas of the economy that remain unserved by the formal financial sector. Public finance and foreign direct investment can be particularly important as sources of long-term investment (UNEP,2016).

Green Credit

The concept that refers to the actual green finance product and service offered by banks in China (i.e., loans related to environmental protection, emission reduction, and energy conservation projects). If green finance is considered as a solution to environmental problems and resource management (Wang, 2013; Li & Xia, 2014), then green credit is the actual bridge which connects the environmental industries with the financial institutions (Salazar, 1998). In some cases, the term is used interchangeably with the Green Credit Policy – a policy which encourages the banks to provide preferred/lower interest rates to environmental friend companies and cut down loans to polluting businesses.

Ethical Finances:

There are strong differences between "sustainable" and "ethical" banking. So far, ethical bank is characterized by; 1) its members participate in decision-making processes, since they are an active part of the management and control bodies and all non-profit oriented. 2) Their legal structure is a cooperative one. 3) They implement ethical codes not just in the allocation of assets but also in the whole process of capitalization and internal organization, mainly through transparency and participation. But, a sustainable bank; is just the one that "has some screening mechanisms for their allocation of assets. (Valdevieso, 2014).

The Radical Affinity Index (RAI):

The term that could be defined as aquantitative approach, to differentiate traditional banks from ethical ones, as to ensure those interested users not to become victims of a marketing campaign. Or it is defined to determine whether there are significant differences between ethical banks themselves and between ethical banks and mainstream ones or traditional banks since it mainly focuses on the accountability, transparency, and social impact (San-Jose *et al.*, 2011).

Based on ethical ideologies, four variables are included in this index those were identified as:

- 1) Transparency: Since entities claiming to be ethical seek for a complete openness and transparency on every aspect of their business activity (Scheire et al. 2009).
- 2) Placement of assets: Where ethical financial institutions strongly affirm they place their assets in projects with positive social benefit and never in projects that meet the conditions and criteria that make some investments ineligible (San-Jose et al. 2011).

3) Guarantees: since this issue will make to attract marginal groups that normally have no access to the financial system.

4) Participation: Where this issue considered to be important in decision making for these types of entities (De la Cuesta et al., 2001).

Social Finances:

The term that is reliably defined as "initiatives that are generally known to be driven by an ethical commitment to social empowerment of marginalized groups and environmental sustainability and their products, services and activities were hold through this commitment (Amin,2012).

Social Financial Organizations (SFOs):

The term that is emerged from **ethical Finance concept**, referring to organized bodies that is claimed to provide a bridge between "ethical" investors and borrower organizations aiming to create social, cultural, and environmental value. The main characteristic in order to differentiate SFOs is transparency, which is used as a tool for both “reconnecting investors and borrowers and to provide a means for borrower organizations to light the importance of their activities to investors (Buttle, 2007).

Figure (3.2): Showing green finance different meanings, co-related terms and definitions.



Source: Designed by researcher based on different literatures and references reviewing.

3.2.2 Historically.

UNEP in 1992 linked the concept of sustainability with financial institutions through the introduction of the "Statement by Banks on the Environment and Sustainable Development" as the UNEP Finance Initiative (Bettignies and Lepineux, 2009; Weber, 2005). This statement is a declaration of proactive cooperation by its signatories to work on common environmental goals and encourage financial institutions to develop services and products to promote environmental protection (Weber, 2005).

The UNEP-FI issued four principles for positive impact addressing the definition, framework, transparency, and assessment of the initiative in order to encourage banks to finance and contribute to the growth. This initiative was developed as an accelerator to achieve the 17 SDGs by providing funds and liquidity to implement the action steps to achieve them as follows:

Principle 1: Financial institutions (FIs) should finance positive impact businesses that contribute to one or more of the three pillars of sustainability (Social, Economic, or Environmental) mitigating risks and harm in these aspects

Principle 2: FIs should develop adequate processes, methodologies and tools to identify and monitor positive impact activities to be financed or invested in.

Principle 3: FIs should provide transparency and disclosure on activities financed, the processes to determine eligibility, monitor, and verify impacts

Principle 4: The assessment of the positive impact finance delivered by entities should be based on the actual impact achieved.

There was strong indication at that time that sustainability has been mainstreamed in the financial sector when the 'Dow Jones Sustainability Group Index' was launched in September 1999 (Bettignies & Lepineux, 2009).

The index's purpose was to establish a tracking platform for financial performance of leading sustainability-driven organizations worldwide (Anderson and Anderson, 2009).

Intensive work of these organizations concerning changing of attitude towards sustainability by banks from resistance to acceptance was profoundly recorded. Where it takes place through several phases (Figure, 3.2), i.e. defensive, preventive, offensive, and sustainable (Mengze and Wei, 2015).

Banks in the defensive phase, assumed sustainability as a financial burden to their operations. While during the preventive phase, banking system address sustainability from internal operations and performance. The offensive phase is characterized by obliged implementation where the bank view sustainability as an opportunity, and finally sustainability is when the bank matures and adopts a business case for sustainable development (Mengze and Wei, 2015).

CSR, the term that was defined as actions on the part of a firm that advance the promotion of social good beyond the immediate interests of the firm exceeding compliance with the set social and environmental regulations (Scholtens and Dam, 2007) Before sustainability consideration as accepted, Corporate Social Responsibility (CSR) - one aspect of sustainability - addressing corporations' demonstration of good behavior (Carroll and Shabanna, 2010).

The mobilization of private funding to sustainability projects has been unproportional to the investment needs and while banks have a fairly good consciousness of climate change problems and their consequent risks, this awareness is rarely followed by an effective commitment (Stanghellini *et. al.*, 2008).

As a consequence, several nations have initiated Green Investment Banks (GIBs). For example, the pioneer UK Green Investment Bank has provided a foundation for more co-financing and risk sharing between the private banking sector and public entities (UNEP, 2011).

The role of the public sector is profoundly recognizable in freeing up the flow of private finance towards a green economy (UNEP, 2011). For this reason, governmentally initiated GIBs have become important drivers for the attraction of private capital into low-carbon and climate resilient infrastructure. If such financial institutions improve their sustainability performance with profitable returns, it may motivate more and more financial institutions to assume a responsible behavior (UNEP, 2011).

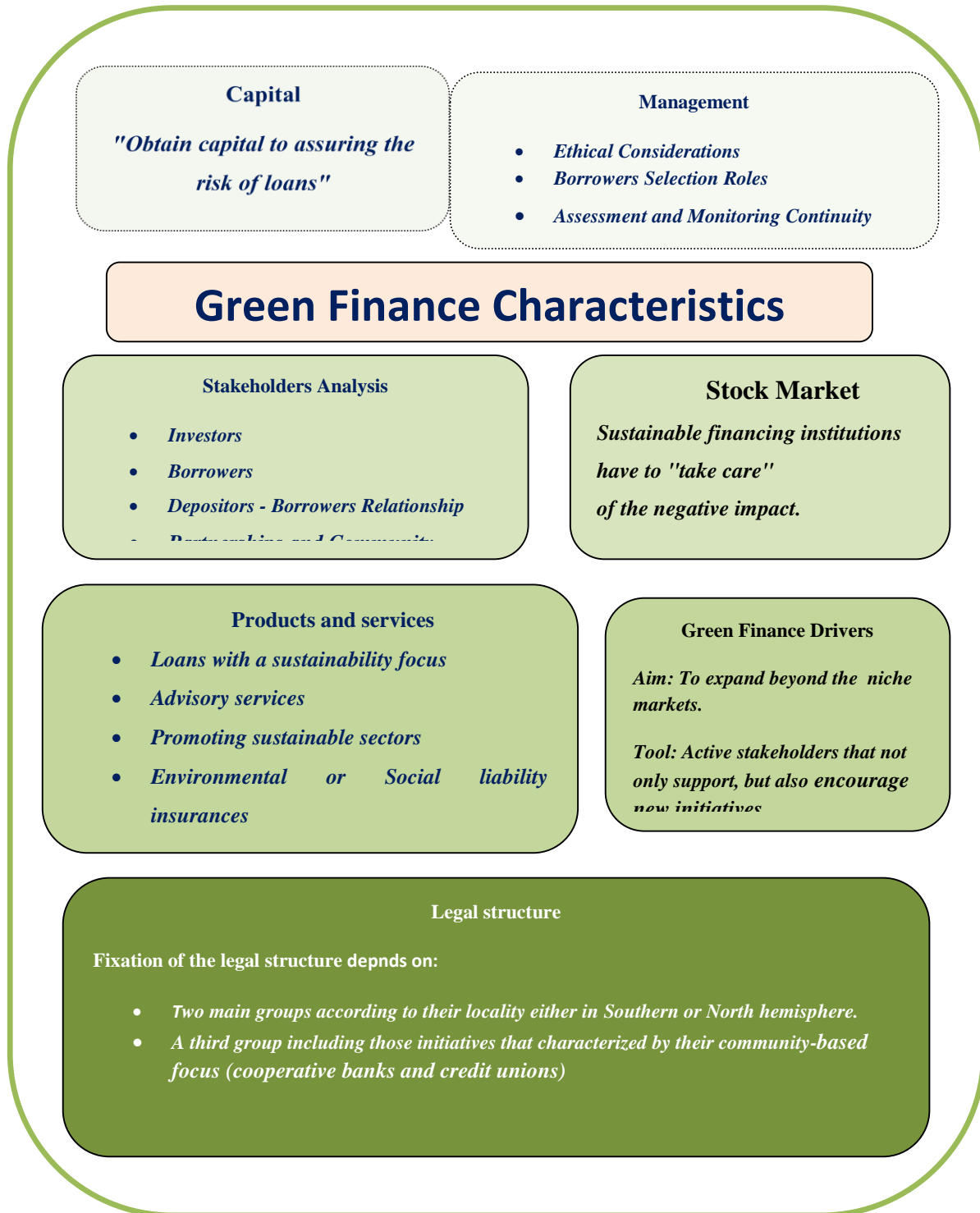
3.3 Green Finance Characteristics.

The major characteristics of the green finance could be summarized as shown in Figure (3.3), also will be presented in details as follow:

1) Capital

One of the objective functions of the traditional financing entities is to "ensure the safety of depositors' loan capital through keeping away from exposure to risk in the way the loan portfolio is managed". Whereas in case of sustainable finances, they "obtain capital to assuring the risk of their loans". The extra capital mainly sourced from not profit organizations, public sector and traditional banks committed to CSR budget. All those

Figure (3.3): Showing the major green finance characteristics.



Source: Designed by researcher based on different literatures and references reviewing.

Suppliers are surely needed compared to mainstream finances. But, to some extent makes even more difficult for sustainable finances. (Buttle, 2007).

2) **Stock Market**

Concerning the stock market, sustainable financing institutions have to take care of the negative impact and even damage this market may cause. Therefore, they are very careful when determining their shareholders structure and policies “in such a way that it should protect their Banks’ mission and identity. Consequently their shares are not listed on a stock exchange and their shareholders have limited voting rights” (Scheire *et.al.*, 2009).

Due to the current possibility of crisis occurrence, a certain question statement occasionally evoked by economic professionals referring to whether or not the financial institutions with a strong influence on the development at every level (international, national, regional and local) “should be allowed to be listed on the stock exchanges”. The evoked question was originated from the rights of sustainable institutions of financing have to manifest their opposition to the stock market, strongly based on short-term profit transactions and investments. Nevertheless, but really, there are cases that due to the legal framework of certain countries, they need to be listed on the stock market.(Scheire *et.al.*, 2009).

3) **Products and services**

Compared with mainstream banks, what really differs from one to another are the holders of the loans, the purpose in which they are going to be invested in. Although sustainable financed projects are considered in some areas to have “higher risks, lower rate of return and longer payback periods”, the interest rates are very similar to the commercial ones and their sustainability commitments make them have an exhausting risk management although this differs widely from the rest (Buttle, 2007).

There are some common ideas when referring to products in sustainable finances:

a) *Loans with a sustainability focus*: Loans to promote sustainable energy, energy efficiency, or biodiversity conservation, or to finance sustainable supply chain management. The term “sustainable finances” was usually related with niche finances while they have a very well defined target group. The Global Alliance for instance detected that mainly “social and ecological housing, organic agriculture, renewable energies, social services, educational services, cultural activities, economic

development of the poor and in many cases small and medium enterprises (SMEs)” are the ones that ask for these loans (Scheire *et.al.*, 2009).

These loans can be categorized as follow:

- Housing finance. Represented by affordable housing programs that provide financing to build or renovate homes, small businesses or individual entrepreneurs in a way that increases efficiency of energy use on buildings and other facilities.

- Sustainable Supply chain Finance. Strongly related with fair trade principles, these loans are mainly to finance innovation at some stages in the supply chain of critical products such as coffee, chocolate, timber, etc. The main purpose is to implement more sustainable practices in these industries.

- Microcredit. It is used in sustainable finances to address social issues, such as traditionally marginalized populations.

b) *Advisory services*. A comprehensive understanding of the project that is going to be funded usually makes to minimizing risks, gaining not only profit with each project; but also adds knowledge and specialized expertise.

c) *Promoting sustainable sectors*: Promoting sustainability has to be considered from different angles, as for example, leasing projects related with renewable energy, especially as when we know that many projects related with the displacement of fossil fuels emerged with a strong need of funding. For example, new markets called “carbon finance” appeared for these sustainable finances.

d) *Environmental or Social liability insurances*. Nowadays, some sustainable related finances offer the “Insurance coverage for certain types of social and environmental liabilities or damages” (Scheire *et.al.*, 2009).

e) *Community projects and charitable donations*. It is necessary to address the important role of donations in the social and cultural development of a community although they should not be included in financial products. (IFC 2007), adapted from (Jeucken, 2001). Furthermore, savers are always invited to decrease or give up the wages from their liability products in order to offer low interest rates for the credits without compromising the economic viability of the financial entity (San Emeterio *et.al.*, 2003).

f) *Debt-for-nature swaps (DNSs)*. Sustainable finances can act as facilitators of the needed financial support in such a manner that the developing countries can exchange

a percentage of its huge debt by the commitment of certain obligations related with sustainable development promotion and nature conservation in their own country (Boumaet. *al.*,2001).

4) Management

Referring to “ethical banks”, “managers in ethical banks try to optimize the interest of the majority of the stakeholders in accordance with the ideology and principles of the bank”. Those stakeholders should include the environment; social groups affected in current and future generations and should also consider the economic viability and feasibility of the institution itself in the long term. The same idea should be also applicable in sustainable finances management. Common thoughts connected to management could be summarized in the following: (San-Jose *et. al.*, 2009).

- Economic viability has to be an objective in order to ensure the continuity of the project. “They have to maintain a residual profit to ensure sustainability over time”.
- Economic profits. Compared to traditional entities, resides should to be differed in the way they are achieved as well as how they are distributed or reinvested. As well, “the quantity of this residual profit depends on the exigencies of shareholders, depositors, investors, and savers.
- Enhance social respect and environmental awareness.
- Promote social development in the area of influence.
- Minimize community costs.
- Manage with respect the possible negotiations with pressuring stakeholders, such as the public sector and competitors.
- Adopt critical attitudes regarding current consumerism and productive quantities as well as competitiveness.
- Develop transparent, fair, and accountable commercial relations.
- Ensure information transparency in and out the organization.
- Promote and develop participative approaches for as many stakeholders as possible.
- Ensure fair and decent labor relations with employees.
- Appreciate quality in the employee’s work (San Emeterio*et. al.*, 2003).

Borrowers Selection Roles

Attention has to be driven to those stakeholders that in traditional finances have worse impacts in society and environment, even the whole organization has a sustainable culture.

Assessment and Monitoring Continuity

Transparency represents important issues related to sustainable finances. It should be applied at every level of the organization. To do that, assessment is necessary for the organization. Clear, effective, and continuous assessment plans have to be settled and implemented both inside and outside the institution.

“Assessment should cover all direct and indirect environmental and social impacts of the financial services provided by the bank to its clients, including retail banking (saving accounts, credit, mortgages), commercial banking (company loans, trade finance), investment banking (stock issuances and trading, project finance, stock analysis, M&A and other corporate advising), asset management, private banking, trust banking and other forms of financial services” (Willem van Gelder, 2006).

5) Green Finance Drivers.

As an attempt to identify the potential drivers and promoters, we should know that win-win situations among stakeholders are one of the positive results when developing sustainable finances. Therefore, there can be active stakeholders that not only support, but also encourage either new initiatives or those already existing ones in order to expand beyond their niche markets. The following list presents the main ones:

1. “The public”: pressure from governments, customers, competitors, NGOs and society towards sustainability.
2. Non-governmental and Non-profit Organizations (NGOs and NPOs) that promote sustainable development.
2. International Organizations and Supranational Institutions.
3. National Governments.
4. Regional and local Governments.
5. Other organizations and businesses derived from the new blue oceans sustainable Development has created, for example the renewable energy sector.
6. Renewed sectors: Green building, transport sector, etc.
7. Financial crisis: society and other affected institutions.

8. Internal driving forces. Emanate from employees, shareholders and the board of directors.

6) Legal structure

Dynamic nature of sustainable finances institutions as a result of changes in time and space is a peculiar character. So, one may face with difficulty when trying to fix the legal structure definition. As they serve numerous markets, they also have different operating ways and therefore different legal structures. In addition to economic variables, they need to set up a framework for social and environmental indicators (Buttle, 2007).

Depending on their action scope, initiatives could be divided in two main groups according to their locality either in Southern or North hemisphere. A third group including those initiatives that characterized by their community-based focus (cooperative banks and credit unions). This classification is important to understand the variety of financial structures when taking into account the geographical, social, and political circumstances that surround them [(San Emeterio, *et. al.*, 2003) and (Scheire *et.al.*, 2009)].

Developing countries financial entities

Southern initiatives, located in developing countries. Most of them work in places with lower rates of the Human Development Index, and the main problem stems from the lack of capital. “They foster both of economic development for the low-income population, and community development in marginalized areas”. They exert best efforts to find capital for those initiatives that constantly call them. Products are mainly microcredit and other innovative ways that allow excluded communities to participate. Most of them have a large number of branches and offices with numerous employees and co-workers. “They cannot rely on a similarly strong deposit base and therefore they are forced to rely heavily on other borrowed funds for financing their activities” (Scheire *et.al.*, 2009).

Cooperative, credit banks

Regardless of the location, the concept of Credit Unions and Financial co-operative saving institutions refer to local schemes where saving is a common task to the people in a community and therefore “the value of the money is symbolically linked with the common bond area” (Buttle, 2007).

These social, community based initiatives have their origins since many decades. So, it represents an ideal community for new collaborative and community based financial bodies to be founded. The contribution of provision of capital to their members of cooperative banks and credit unions has been very valuable for small societies. However, “this changed when commercial and savings banks started offering banking services on a broader scale(de Clerck, 2009).

"New banks" of the Northern developed countries

The main characters of the "New Banks" are; Robustness and centralization of its business structure with few branches or offices. Those characters facilitate competition with the mainstream banks Also, their mission includes ideological components and beliefs towards a global change in the financial system, have a relatively low number of personnel and the business activity is based on Information and Communication Technologies (ICTs) systems (de Clerck, 2009).

That pattern of banks seems to some extent to be considered committed for sustainable finances; this category would be the one closer to the concept defined. Those social-based initiatives funded years ago in western countries aiming to serve their communities. They “focus on the capacity building force of bringing savers and borrowers, consumers and entrepreneurs together for investment, directing the money flow to where it is needed in societal and human development perspective”. There is an international trend in this direction, creating responsible business towards society and environment (de Clerck, 2009).

7) Stakeholders Analysis

It is known that encouragement of "win-win" is the basic role governing stakeholders' relations. Moreover, promoting sustainability has to be the core mission of all. However, this principle would not ensure sustainable practices if some were left aside or empowered. Therefore, in analyzing the potential impact of sustainable finances, it has been identified that stakeholders should share the same mission as their financial entities, seeking for sustainability before economic profitability(Jeucken, 2001). When investigating and defining the relations among stakeholders, concept such as "co-operators" and "partnership opportunities" - that means investment opportunities - is called and collective endeavor is perceived as a way to achieve social and environmental purposes (Buttle, 2007).

Although the relevance of stakeholders' relations is varied and multiple, when analyzing sustainable finances, a brief description is given in the following ones to clarify differences from mainstream finances.

Investors

The main sponsors supporting financially the creation of a project related to sustainable finances well known as "Investors". They are mainly governments, NGOs, other financial institutions, suppliers, customers (savers) and shareholders.

According to their motivations, four major categories of investors or depositors were objectively defined:-

- First, those ones whose main concern is related with social justice, democracy and the redistribution of wealth.
- Second, those ones motivated by environmental concerns and sustainable practices believing in the potentiality of the financial sector to promote sustainable development.
- Third, those ones in-depth knowledge of financial issues and the current economic situation that made them believe that sustainable finances are less risky in the long term.

A small group of investors that previously were financing charity projects and decided to share positively on society and environment, where some of them believed it is more efficient and others were just directed by charitable organizations(Buttle, 2007).

Borrowers

Policy-makers and some academics address the term social economy as to label the group of dealers "Borrowers" That were represented by a broad range of charities, arts organizations, local community groups, social enterprises and sustainable development organizations(Buttle, 2007).

Those usually seek for financial support for a broad range of reasons that traditional banks believe are risky, not profit oriented and therefore low quality investments. Many of them are also turned away due to their inadequate credit experiences. Sustainable finances on the other hand invest time and knowledge in trying to understand their social or environmental mission (Buttle, 2007).

By the way, the relation they maintain with their borrowers goes further from the loan contracts, existing multidirectional transfer of knowledge and expertise(Scheire *et.al.*, 2009).

Depositors - Borrowers Relationship

Creation of a common area between savers and borrowers represent the essence of the relation between depositors or investors and borrowers.

The privatization of money creation and the consequent lack of democratic control. The later concept should be changed as to manage the money as a public resource and seeing the financial entity as a facilitator, the idea behind sustainable finances is similar. This issue forced correspondents to suggest possible solutions to shift the perception of money handling. On the other hand, incentives are important for these entities to participate the promotion of sustainable development. (Mellor, 2010).

Innovation of sustainable finances is mostly reflected in the ways they promote for the interaction between savers and borrowers. This interaction could be achieved through some of communication tools and ways described below:

- *Newsletters*. Such as reports they distribute among clients and stakeholders periodically to enhance transparency. Others publish their activity on a continuous basis through electronic newsletters.
- *Online applications*. Where webpages are the best examples to enhance transparency and user participation (Scheire *et.al.*, 2009).
- *Savings accounts*. Where savers can choose between the different projects according to their social or environmental positive impact (Such as renewable energy, organic food, social or community-based projects, education and culture). How investors learn where their money is lent and about its impacts? Conferences, public lectures and talks, holding annual general meetings in borrower organizations are all a pronounced communication tools (Buttle, 2007).

Partnerships and Community

In order to have a larger impact, sustainable finances occasionally accept to holds collaborative relations with other financial institutions and organizations contributing to their capital. In many cases, traditional institutions consider these collaborations part of their CSR activity(Scheire *et.al.*, 2009).

3.4 Green Finance Initiatives.

The most prominent green finance initiatives could be summarized as shown in Figure (3.4), also will be presented in details as follow:

Figure (3.4): Showing green finance initiatives.



Source: Designed by researcher based on different literatures and references reviewing.

With regard to sustainable finances, participants of the World Economic Forum in 2003 wrote a pioneer common framework that could be considered as a general benchmark named The Collevocchio Declaration on Financial Institutions and Sustainability. This Declaration outlines six principles that financial institutions should consider: a commitment to sustainability, to 'do no harm', to responsibility, to accountability, to transparency and to sustainable markets and governance (de Clerck, 2009).

Sustainable finance is also included in the agenda of the United Nations (UN) since the United Nations Environment Program Finance Initiative (UNEP FI) that was established during 2003 considered to be the unique global partnership between the

United Nations Environment Program (UNEP) and the Global Financial sector with more than 200 institutions worldwide” (UNEPFI, 2011).

The most obvious Initiatives Were:

3.4.1 The Global Alliance for Banking on Values (GABV)

During 2007, fourteen banks (from Asia, Latin America, USA and Europe), the pioneer leaders in sustainable finances, established an organization known as "The Global Alliance for Banking on Values (GABV)". Its mission is "to share commitment to find global solutions to international problems and to promote a positive, viable alternative to the current financial system” (GABV, 2011).

The difference between these banks and the mainstream competitors is that these banks practices aimed at financing cultural, social, and ecological projects. The central objective of their banking activities is a triple bottom line approach that embodies the vision that financing should take into account people, planet, and profit (Scheire *et. al.*, 2009).

Their beliefs towards economic interdependence and responsibility towards current and future generations encourage them to make the highest efforts for provoking new ways to transform the financial sector in a more sustainable one (Scheire *et. al.*, 2009).

3.4.2 Islamic Banks.

Islamic banks represent a good example of responsible finances due to social expectations and cultural beliefs since society is one of the most powerful stakeholders that formulate the private sector in general and the financial sector in particular to be more responsible, committed to sustainability and interested not just in economic profit maximization, but also social and environmental positive impacts. Religion beliefs of course shapes and formulate social expectations, cultural values, ethics and moral codes, shape personalities and behaviors. This criterion clearly impacts Islamic banks motivations and practices. It is clear that they are an illustrative example of how social expectations and cultural beliefs influence and enforce towards responsible business actions especially when we know that "Among the most important objectives of the Islamic finance in general and particularly the Islamic banks, is the establishment of justice and elimination of exploitation in business

transaction". All these practices were guided by Shariah law "Islamic law" (Elmelkiet. al., 2009).

3.4.3 European Initiatives

On the country level, European countries have implemented a wide variety of policies towards sustainability, but none of them has properly addressed finances. Whereas on the private sector level, during past three decades several actions have been considered on environmentally friendly products. However these are mainly marketing oriented (Marcel, 2001).

By considering the financial sector, many tools and business concepts have issued (for example; codes of conduct, environmental reporting, management systems and risk assessment, socio-economic initiatives and sponsoring.), none of them have been efficient enough to be identified as sustainable finances (Marcel, 2001).

Other projects supporting and contributing to the consolidation of alternative finances such as the sustainable ones. They emphasized their efforts on the social aspects; however they also consider environmental concerns and act as crucial platforms to promote sustainable finances.

Two of them "Eurosif and FEBEA" that could be mentioned briefly here;

Eurosif.

The European Sustainable Investment Forum (Eurosif) is a pan-European network and think-tank whose mission is directed to sustainability development through European financial markets. Current member affiliates of Eurosif include institutional investors, financial service providers, academic institutes, research associations, trade unions, and NGO's. The association is a nonprofit entity that represents assets over €1 trillion through its affiliate membership (Eurosif, 2012).

FEBEA.

The European Federation of Ethical and Alternative Banks (FEBEA) established during 2001 by a number of commercial banks as a non-profit organization governed by the Belgian law. Their main objective is to develop the ethical and solidarity-based finance in Europe, creating alternative financial tools and sharing experiences. Today, it includes twenty-four banks with different legal forms but they all share the same ethics for transparency, social and environmental utility (FEBEA, 2012).

A list of subsidiary communication tools and linkages may also be considered here:

Within the webpage, their mission is stated as "developing and promoting linkages between sustainability and financial performance through peer-to-peer networks, research and training, UNEP FI carries out its mission to identify, promote, and release the adoption of best environmental and sustainability practice at all levels of financial institution operations"(UNEP FI, 2011).

The Equator Principles, defined as a "banking industry framework for addressing environmental and social risks in project financing" represent the good example for banking industry sharing in collaborative movements regarding sustainability finance (Equator Principles, 2011).

The Global Reporting Initiative (GRI) that defines itself as a “multi-stakeholder process and independent institution whose mission is to develop and disseminate globally applicable sustainability reporting guidelines”. This institution is a better example of the kind of tools needed for the further development of sustainable finances (Global Reporting Initiative, 2011).

Green Bank Report website, one of existing alternatives aiming to help for green banking in the United Kingdom, United States and across the rest of the world, reporting on the latest green banking news and the best green banking deals and rates, in the hope that more people will utilize green banks to help reduce the environmental impact of banking activities. They have partnered with several non-profit organizations to promote eco-friendly banking practices(Green Bank Report, 2012).

RIPESS, the intercontinental network that connects social and solidarity economy networks throughout the world organizing global forums for learning, information sharing, and collaboration. Internationally, they promote an economy based on the Triple Bottom Line (RIPESS, 2012).

3.5 Green Finance and Banks.

3.5.1 Green Finance from the Banks' Perspective

Although banks and other lending financial institutions by themselves release a limited or minute hazardous toxic pollutants into the environment. However, it has been increasingly recognized that they are linked to commercial activity that harms the natural environment through their lending practices to businesses [(Sarokin &Schulkin, 1991); (Smith, 1994); (Gray and Bebbington, 2001)].This means that they

were indirectly facilitate and enable industrial activity environmental damage when they support projects that do not meet environmental standards (Thompson and Cowton, 2004). This recognition is understood to policy makers and bankers. So, along the way, from zero point starting till reaching the sustainability level; four phases action that banks should take for sustainability (Figure 3.5). They are sequentially defensive banking (Phase), preventative banking, offensive banking and sustainable banking. The first three terms are defined as the stages or attitudes of banking with respect to environmental issues.

During **defensive phase**, bank remains inactive or even resists emerging environmental regulations since its interests may be damaged or indirectly affected by the damage of its clients. The cost for environmental management tends to be avoided.

During **preventive phase**, bank merely integrates organizational environmental management and environmental risk management into its daily business, because it has identified the potential cost saving through implementing these internal processes. The driving force from governments, NGOs who challenge banks' practices by legislation or reputational risks will also make bank step into this stage inevitably.

Figure (3.5): Showing sustainability by banks from resistance to acceptance through several phases (defensive, preventive, offensive, and sustainable green finance).



Source: Jeucken,2001. *Banking and sustainability: Slow starters are gaining pace'*

During **offensive phase**, when bank recognizes an environmental concern as competitive opportunity in financial market, they will develop corresponding environmental-friendly products or services as a response and then market them. The attitudes of offensive banks can be regarded as proactive and innovative. By using this strategy, banks are expected to reach the win-win solution. However, it is still to be noted that, a real win-win situation will hardly lead to sustainability, because environmental costs in reality are not internalized into current price system completely.

The ultimate stage is **sustainable phase**. To be a sustainable bank, all activities of bank are sustainable (Jeucken, 2001).

In practice, decision-makers who acknowledge the importance of sustainable development are likely to engage in green finance activities. In other words, and for different reasons, banks apply sustainability criteria to their lending business in such a manner they have: (Weber *et. al.*,2015)

1) To manage their environmental risks (Weber, 2012).

- 2) To have business opportunities from green-lending (Aizawa & Yang, 2010).
- 3) To improve their own reputation (Nandy & Lodh, 2012).
- 4) To compliance risk.

Whether those motivations create financial incentives for banks to participate in green financing or not, they will be examined here Fig.(3.6).

1) Managing Environmental Risk

Credit risk management equal business success of the bank. This clarifies why lenders that can evaluate risks will be more likely to succeed in the banking industry (Hempel et al., 1990). Thus, banks develop environmental and sustainability credit risk assessment policies and procedures (Evangelinos & Nikolaou, 2009), and use them as a mechanism to manage credit risks resulting from environmental, social, and sustainability impacts (Coulson & Monks, 1999; Weber & Banks, 2012). Furthermore, some lenders integrate environmental risk management throughout the phases of their credit risk management such as rating, costing, pricing, monitoring, and work-out (Weber, *et.al.*, 2008).

Figure (3.6): Showing green finance Motivations.



Source: Designed by researcher based on different literatures and references reviewing.

Risk Management

Optimal profitability is the ultimate goal of every bank strategy. Banks take deposits and channel the capital into lending activities and consequently earns revenue from interest on outstanding loans and service charges, pays variable costs that include the cost of holding capital and the loss from bad debt as well as the various fixed costs associated with the provision of banking services according to these simplified function:

$$\mathbf{Profit = Interest Income + Service Charges - Bad Debt - Capital Holding Costs - Fixed Costs.}$$

It seems from the above function that capital cost is largely influenced by the macroeconomic environment and fixed costs being stable, the ability to minimize bad debt is what can be managed to increase the profit of a bank. Typically, this requires the lenders to keep track of a borrower's capital stock, earnings, liquidity, etc. Those

factors are often recognized as counterparty credit risks which influence the borrower's ability to repay the loan (Saunders, 1999).

Environmental Risk

Recently, environmental risk is recognized as one of the most important factors that can influence credit risk. a positive correlation between sustainability performance and borrowers' credit risk (Weber,2016). In practice, banks are more aware of environmental consequences of their lending decisions, as the environment in return can pose serious risks to a bank's business (Thompson, 1998).

Traditionally, there are three types of environmental risks resulting from a bank's lending decisions, those are direct risk, indirect risk, and reputational risk.

Direct Risk. It could be recognized for example, when a bank takes over possession of the land that was being used as collateral for a loan. If this land was contaminated, it will be decreased in his value, the risk will be carried on the lender who has taken it as a security, he will find himself being treated as the responsible party, hence resulting in his being held liable for remediation costs (Dawson, 1996).

Indirect Risk. A business may be exposed to many costs due to damage caused to the environment, such as the cost of cleaning up contaminated sites, the cost of complying with increased environmental legislation, and losing customers due to its bad reputation. If this happened, the ability of a borrower's to repay the loan will be impaired. Eventually, banks can be affected as well when the business is not able to pay back its loans. In such a series of events, this type of risk could end up with a bank losing its loans.

Reputational Risk.

Reputational risk is considered different from the other two risks as it might hurt banks for a long period of time rather than from sudden losses. Banks may lose their ability to attract new customers, lose interest from investors, and eventually suffer financial loss (Thompson, 1998), especially, when a negative comment from the public, such as customers, media, pressure groups, and governmental bodies were received (Buxton, 1997).

Those three types of risk may co-exist to create a serious burden on a bank. So, "the consideration of environmental issues in bank lending operations is prompted mainly by a concern to manage risk rather than to exploit lending opportunities or as a means of fulfilling their social responsibilities" (Thompson and Cowton, 2004).

2) Business Opportunities

Aiming to achieve optimal profits and to serve the needs of specific groups of customers, banks are now seeing green entrepreneurs as a target group to whom they can expand their market (Aizawa& Yang, 2010; Wei, 2009).

Another objective of banks in developed and developing markets are becoming increasingly interested in financing energy-efficiency and renewable-energy projects, and to become involved in carbon financing, in a concerted effort to address climate change and make profits, a win-win scenario (Aizawa& Yang, 2010).

The question regarding the priority between new opportunities and risk controls still considered as a controversial issue. There is somewhat believes that environmental problems come behind profits – the fundamental interests of a bank, so the incentives and subsidies from the government are very important in the development of green credit (Fulton, 2008).

While considering environmental issues in the business, banks offer opportunities (green market) for gaining financial benefits. But, on the other side focusing more on risks than possible profits (Thompson, 1998). This means that, businesses often try to weigh the trade-off between financial return and sustainability (Keele and DeHart, 2011) rather than seeing a win-win situation in both (Schalteggerand Wagner, 2011).

3) Improving Reputation

It is regarded to the conduction of banks to the green finance as a mean for increasing their reputation since the reputation issue is recognized as an intangible asset. This increasing in reputation may be achieved through sustainable banking with the goal of reducing reputational risk (Thompson, 1998). Since some scholars suggested that reputational risk could affect the financial performance of a bank (Scholtens *et. al.*, 2008).

As stakeholders are becoming more aware of the need for sustainable development and often put pressure on the finance organization, it is thought that much of the reputational risk come from those stakeholders. However, banks are often criticized for being reactive rather than proactive regarding sustainable development (Weber, 2014b).

Collectively, there is a causal correlation between corporate social responsibility (CSR) performance, customer satisfaction, customer loyalty, reducing the direct

environmental impact from their daily operations and financial performance in the financial sector [(Weber, 2016); (Babiak and Trendafilova, 2011)].

4) Compliance Risk

Risks of legal or regulatory sanctions, material financial loss, or loss to reputation a bank may suffer as a result of its failure to comply with laws, regulations, rules, related self-regulatory organization standards, and codes of conduct applicable to its banking activities, all those issues are called compliance risk (Basel Committee, 2005).

Compliance risk management is about dealing with future regulations. Non-compliance usually does not cause immediate losses. Most regulations, laws, and standards provide a transition period for rearrangement purposes. Nevertheless, if no action is taken ahead of time, transitions are much harder to achieve within a limited amount of time. For this reason, organizations may act ahead of time if they see new regulations forthcoming.

3.6 International Motives toward Green Finance

Starting with 1990's, a series of emerging policies or initiatives from different dimensions has pushed banks to improve environmental performances in their financing services to take its way to "green" the financial activities.

These policies could be summarized in:-

3.6.1 Major Initiatives

International environmental treaties:

A governmental-based movement such as Kyoto Protocol linked to the United Nations Framework Convention on Climate Change (UNFCCC) and Convention on Biological Diversity (CBD). Although they are government-based obligations, banks as well as other social entities need to work towards fulfillment of commitments.

Initiatives of UN agencies:

These voluntary commitments such as "OECD Guidelines for multinational enterprises", "UNEP finance initiative", "UN Global Impact", "UN Principles for Responsible Investment" (UNPRI) applied to investors for asset management were posed and issued. These commitments address social and environmental impacts on business and financial institutions.

Environmental financing policies:

Environmental and social standards usually referenced by the national laws to guide banks' financing activities and performances, and also enforced banks to design own internal policies. For example, China has issued "Green Credit Policy" in 2007 in order to regulate banks' lending to companies and projects that are with high environmental risks (MEP,2008); Dutch government has made "Policy Document on Environment and Economy" to banks since 1998 (JeuckenandBouma, 1999).

Activities of bank alliance and civil societies:

Where certain standards that mostly focusing on certain sectors or issues, can be used as benchmarks for banks' practices. Those may include "Extractive Industries Transparency Initiative (EITI)" which focus on financial transparency in mining, oil and gas sectors, "The Climate Principles" developed by the Climate Group and an international group of financial institutions provided to reduce climate change risks, "Global Reporting Initiative" (GRI) provides a sustainability reporting framework, and "The Equator Principles" (EPs) that applied to project financing.

Individual bank policies:

Where all standards, norms and national policies need to be translated into the level of individual banks to curb environmental impacts on lending and investments in specific sector. In recent years, some leading banks have settled string of standards to improve environmental performances in specific sectors, which has been a future trend for other banks to follow with.

3.6.2 Axial international standards & initiatives

In order to gain insight into these collective standards related to green finance in the context of global scale, this part will explicate several collective policies or initiatives that can be adopted by financial institutions especial for banking to incorporate environmental criteria into their practices. Although they are voluntary-based global initiatives, these standards have been an external element to stimulate banks to sign up.

To adopt an initiative or standard is regarded as a commitment by bank who should integrate certain criteria of sustainability into its banking services. But, whether the commitment is truly in effect relies on further integration of the criteria with bank's internal policy for lending or investment. With respect to each standard or initiative, it is merely relevant for a particular sector or issue policy, and its limitations are still remained.

To seize a basic understanding, four essential representatives will be examined as followed:

1) UNEP Finance Initiative

The United Nations Environment Program Finance Initiative (UNEP FI) was launched in 1992 as to promote awareness of the environmental agenda into the banking industry. It is the unique partnership between UNEP and financial sector. It could be seen as the initial step towards Green Finance. Later on, it keeps engaging more financial institutions like investment and commercial banks, insurers and fund managers into close dialogues about linking environmental protection with sustainable economic development aiming to integrate environmental utilities into the going financial services and practices.

Institutions assigned to the UNEP FI statement also have accession to learn from the network about the latest trends and practices on how to seize green opportunities for growth as well as to shape sustainable finance agenda in their own development (UNEP FI, 2010) and (UNEP FI, 2011).

2) The Equator Principles

The Equator Principles (EPs) were launched in 2003, serving as "a set of voluntary standards for determining, assessing and managing social and environmental risk in project financing". They were initially adopted by some leading global banks, such as Citigroup Inc., The Royal Bank of Scotland, Westpac Banking Corporation (EPs, 2006).

The EPs is the base of the performance standards on social and environmental sustainability of the International Financial Initiatives (IFC) and World Bank Group's Environmental, Health and Safety general guidelines, and it provides a common benchmark and framework for project finance.

The adopting utility, known as Equator Principles Financial Institutions (EPFIs), where it is committed to;

- Make their own social and environmental policies, procedures and standards for their financing activities.
- Ensure not to give loans to projects where the borrowers do not comply with the standards stated in the EPs.
- Have responsibilities to ensure the borrowers know the content of principles and to guide them on how to incorporate principles into planned project.

- Require their clients to report the intention of compliance with EPs' standards if they are able to continue to seek financing for the project afterwards.

3) **UN Global compact**

The UN Global Compact (UNGC) contains ten voluntary principles. Also, it mainly addresses the following concept "businesses should support the proactive approach to environmental challenges; undertake initiatives to promote greater environmental responsibility; and encourage the development and diffusion of environmentally friendly technologies" (UNGC, 2011).

The signatory banks commit to avoid violating human rights, comply with labor standards, against corruption and protect the environment. Another issue should be noted is, the UNGC does not require banks to verify whether companies that they invested have similarly supported these principles (Gelder, *et. al.*, 2010),

4) **Carbon Disclosure Project**

The Carbon Disclosure project (CDP) is a non-profit organization that impels corporations, investors and other organizations. Its main objective is to:

- Disclose the greenhouse gas (GHG) emissions of their operations and assess their potential exposure to climate change related risks.
- Providing participants with their climate impacts by applying climate change reporting system.
- It can exactly calculate out about which part of GHG output is attributed to its financing to a company.
- CDP has no standards or exclusion criteria to delimitate direct effects of bank from its lending to companies who actually do not disclose their carbon emission (CDP, 2011; Gelder, *et. al.*, 2010).

The accession to international financial norms helps banks with international experiences and innovative practices to gain more reputation, public's recognition and investors' favors. Eventually, all these will bring economic benefits to the signed banks on the long run. At the same time, these banks may also face more challenges including the public's supervision, restriction with stricter standards and increasing demand for financial transparency, which might bring about interests loss in the short term due to the current competition within financial industry (Yu, 2011).

3.7 Green Finance Standards and Guidelines

Principles and standards are established to guide green finance on a global level. However, the focus is usually on two main global sustainability standards for Financial Institutions (FIs).

Those standards are chosen to be:

IFC Performance Standards (PS) and the Equator Principles (EPs).

Standards to guide FIs to integrate social and environmental assessments into the credit risk procedures were introduced by international organizations over the past decade and a half (Scholtens and Dam, 2007).

The IFC-PS, which is a set of eight standards to introduce FIs to social and environmental risks, was of the initial promotion for sustainability but did not entail applicability guidance.

As an international case for standards guidance:

In the late 1990s, ABN AMRO, Dutch Bank with its headquarters based in the Netherlands, approached the IFC raising concerns on the lack of established principles for banks to follow when they are faced with lending decisions that entailed social and environmental risks. The case faced by ABN AMRO was a profitable mining project located in Papua New Guinea that can severely contaminate the local water supplies if implemented.

In 2002, ABN AMRO, the IFC and three other financial institutions namely: Barclays Bank, Citibank Group, and West LB, addressed the concerns and proposed a list of standards and principles as a solution (Scholtens and Dam, 2007).

In 2003, 10 banks announced their adoption to the proposed principles, which were then named and introduced as 'The Equator Principles'. In the three following years, around 40 more banks worldwide adopted them resulting in a total of 50 banks comprising 85% from the market of project finance in the developing world at that time (Scholtens and Dam, 2007; Ong, 2010; Schepers, 2011).

In 2010, seven years after the introduction of the EPs to the financial sector, an EP association was formally established as a governance mechanism with Shawn Miller of Citibank (New York) as the chair to combine the principles and green finance as well as expand outreach to reach over 70 adopters (Conley and Williams, 2011).

The EPs act as a protective shield for the banks against improper conduct of the borrowers that can affect the banks' finances, performance and reputation (Conley and Williams, 2011).

It was initially formed for projects that require financing for 50 million dollars or more but then was readjusted to projects for 10 million dollars or more in order to maximize its effect (Schepers, 2011).

These principles apply to four different financial products in banks: project finance, project-related corporate loans, finance advisory services and bridge loans. However, very few banks integrate it more widely across all credit and finance products (Zeidan et al., 2014).

Some banks even adopt the principles only when the benefits they receive exceed the cost of its implementation and staff trainings to show commitment (Scholtens and Dam, 2007; Schepers, 2011).

The EPs comprise 10 standing principles that were last revised in 2013 (EPs Official Website, 2017):

Table (3.1): Equator Principles Guidelines (EPs Official Website)

Principle 1	Review and Categorization
Principle 2	Environmental and Social Assessment
Principle 3	Applicable Environmental and Social Standards
Principle 4	Environmental and Social Management System and Equator Principles Action Plan
Principle 5	Stakeholder Engagement
Principle 6	Grievance Mechanism
Principle 7	Independent Review
Principle 8	Covenants
Principle 9	Independent Monitoring and Reporting
Principle 10	Reporting and Transparency

These principles were established where they "based on an assessment process that categorizes social and environmental impacts according to three-tiered system". This exercise is very beneficial to banks who adopt the principles as it strengthen their knowledge on social and environmental risks in order to share their expertise with their clients as a form of sustainability consultancy (Scholtens and Dam, 2007).

The categorization of projects is a pre-condition to consider a project for financing. This is to comply with the antecedent of the EPs, the IFC PS (Schepers, 2011; Scholtens and Dam, 2007).

Table (3.2): Categorization List (Schepers, 2011)

Category	Impact	Tier Property
A	High	Projects with potential significant adverse social or environmental impacts that are diverse, irreversible or unprecedented
B	Medium	Projects with potential limited adverse social or environmental impacts that are few in number, generally site-specific, largely irreversible and readily addressed through mitigation
C	Low	Projects with minimal or no social or environmental impacts

Based on the categorization process, an Environmental and Social Impact Assessment (ESIA) may be required along with an Environmental Management Plan (EMP) indicating measurable action steps to mitigate and prevent potential adverse impacts.

If a project is categorized A or B it is required to provide an ESIA and an EMP - category C is exempted. In addition, if a project is implemented in a non-OECD country or an OECD country that is not designated as high-income an ESIA and EMP are also required (Schepers, 2011; Scholtens and Dam, 2007).

These provided documents are then added to the project's loan covenant that allows the bank to withdraw funding from the borrower in case of non-compliance as a breach to its social and environmental obligations (Scholtens and Dam, 2007).

The EPs are a form of private governance or a self-regulatory scheme in the form of a code of conduct. It is considered a practice of soft-law, which contrasts with the traditional command and control. In the condition where government has failed to materialize effective sustainability enforcement, governance structures promulgate to supplement the existing structure and fill the gaps left by traditional law (Schepers, 2011; Scholtens and Dam, 2007).

3.8 Green Finance from Islamic Perspective.

In the context of providing the Islamic Perspective towards Green Finance, we are touching the essence of the relation between human being with each other's on the earth. Those relations that occupy a special attention from al Qur'an and alhadeeth

speech, that calls for cooperation, dynamic positivity of each person, keeping the purity and clearness of all environment away from any hazard pollution. Here, this aspect may be discussed from two standpoints;

- 1) Ethical, religious obligation of sustainability.
- 2) Green Finance concept in the Islamic Shariah "Law".

3.8.1 Green Finance and Islamic Shariah "Law".

The main objectives of the green finance are to save the environment and resources from the harmful and maximize the utilization of resources towards mankind. In order to achieve those objectives, Shariah-based banks can diversify the trends of funding as to be directed towards the forest, natural resources, sustainable innovations in business processes such as organic agriculture, sustainable construction, sustainable energy from wind, water, sun and biomass, and other sorts of environmentally friendly investments. In doing so, ethical and Islamic cultures should to be present and highlighted since; "Ethical practices, in the Islamic banking framework, are derived from religious teaching. Islamic banking is one form of integrating religious principles in investment decisions. The basic tenet of Islamic banks is that the investor should invest his or her assets to reflect the Islamic principles that govern his or her daily life. The concept of ethical investment is based on the philosophical, religious or moral convictions of individual or collective investors, who exclude from their investment universe all stocks in fields which they consider contrary to their convictions"(Elmelki et. al., 2009).

Relaying on the previous concepts, it is therefore crucial for everyone, including Islamic banks to consciously play their role towards ensuring environmental sustainability since achieving environmental sustainability is the responsibility of everyone and the banking industry must do best to succeed (NazimUddin, 2016).

Generally, the main difference between traditional financing and Islamic finance is that the later system is based on Sharia law that prohibits interest, uncertainty, and investment in unlawful sectors defined by Islam. In other words, green finance is the financing investments that promote renewable energy, sustainable developments, and environmental products or policies. Those objectives could be attained though different subsystems or instruments covered and guided by Islamic Shariah law. For

example, Murabahah, Green Sukuk, Musharakah, ijarah, combination, mudarabah, wakalah and other instruments figures are available and could share and activated progressively to flourish the green market. Applying such instruments will guarantee equality both for Islamic banks and depositors either in profits or loss (Haron, 1996).

Several studies confirmed the outperforming of Islamic banks over conventional banks in green financing manifold (Olson and Zoubi,2016).

Higher growth in general Islamic finance is mainly based on Murabahah which is a non-interest loan (Represent about 79% of the Islamic financial assets). On the other hand, green Sukuk (a type of sharing ownership of a tangible asset related to a project or investment) come to the 2nd rank followed by Musharakah (or Musharakah) that be defined as (joint enterprise allowing both parties sharing the profit or loss according to the pre-determined ratios) which come to the 3rd rank. However Sukuk and Musharakah are the Islamic investment instruments that highly contribute and achieve higher rates in green financing (Sekreter, 2017).

3.8.2 Green Sukuk

Green Sukuk are Islamic securities compliant with the provisions of Islamic law and directed towards green investments and environmentally friendly projects(Arqoub, 2017). It is viewed as a good model to finance sustainable infrastructure as well as help bridge the gap between conventional and Islamic financial worlds (Ali, and Abdullah, 2017).

3.9 Analyzing Green Finance Incentives of the Chinese Banking Sector

China has seen an acceleration in trade and investment due to economic development, so banks have an important role to play in supporting and financing these investments, especially on environmental issues, but banks consider addressing environmental concerns as critical because of the huge amount they need, and environmental problems cannot be remedied, Bai.Y (2011), he Mentioned the aims of providing financial support for green financing through the integration of Chinese banks in their financing activities and the promotion of green financing. The study presented the results of the activation of the green credit policy which include:

- 1- Linked to three government agencies and encouraged private banks to develop policies to activate green financing. The credit policy requires banks to develop comprehensive systems for environmental risk management, environmental non-compliance, however.
- 2- China has found that the policy of forcing banks to develop the internal regulations of environmental concerns is better than the green credit policy to become environmental priorities through the environmental lending portfolio.
- 3- promoted the participation of Chinese community based non-governmental organizations such as IFC, EPs and UNEP to teach good practices in promoting green finance, and to monitor the environmental behavior of Chinese banks that put green financing in their first policy.

3.10 The Prospects for the Development of the Green Bond Market in the U.S.

The United States has a relatively small share of cumulative green bond issues around the world and its vision is focused on reducing carbon emissions to increase green bonds, but it has faced many of the many challenges and has provided solutions to this problem, (Grosvenor, Srinivasan and Tsalhalis, 2017) they stated in their study.

3.10.1 Challenges facing the United States

- In 2009, the Waxman-Markey Bill project, which focused on studying the cause of climate change to adapt to it, failed to slow progress and find a successful solution.
- In 2017, the clean energy plan, which poses a major risk to the United States, was extended to extend the investment tax credit and production tax credit, which is a crucial way to develop wind and solar energy industries.
- NRG Yield Inc, TerraForm Power Inc. and Pattern Energy Group Inc, issued green bonds, but stumbled, leading to a downgrade of green bond issuers. Despite these challenges, the United States has tried to find solutions to this problem.

3.10.2 Solutions by the United States of America:

The Paris Climate Convention has been signed by the state and corporate level, as it is a major carbon mitigation support and seeks to establish leadership in climate change, both in reducing emissions levels and helping to promote industries that support climate change elsewhere. As a result, the cost of renewable energy sources allocated

to research and development has been reduced. In the future, it is expected to encourage investment in green bonds by showing their credentials.

3.11 Green Finance in the Mediterranean

Green financing is an indispensable means of implementing the green economy, it requires high amounts to expand sustainable energy services. There is a need to develop national and international policies to increase investment in green financing. (Fosse, 2017) they mentioned in their study, Green and climate in some Mediterranean regions, such as the North Coast and South Coast States, here some of these countries will be mentioned.

3.11.1 Turkey

Turkey is a party to most of the environmental agreements, as it promotes cooperation and action at all levels to address environmental problems. There are coordination and cooperation with the Ministry of Environment and Urbanization (MoEU) to mitigate and adapt to the effects of climate change. Adaptation to climate change.

3.11.1.1 Climate change strategy

The strategy for climate change was approved by the Supreme Planning Council. The aim of this strategy is to promote energy efficiency, increase the use of renewable energy resources, increase citizens' lives and well-being by reducing carbon and increasing access to financial resources for mitigation and adaptation activities through public and private channels For green financing.

3.11.1.2 Implementation

In 2011, the National Action Plan for Climate Change was established to ensure the implementation of the climate change strategy. 129 plans to control greenhouse gas emissions and adapt to climate change were prepared based on the Ninth Development Plan, which provides for a national plan of action to reduce greenhouse gas emissions, Related to energy, buildings, transport, water, industry and agriculture, where they are associated with the Ministry of Environment and Urbanization and the General Directorate of Environmental Management and Climate Change Management.

3.11.1.3 Examples

- *Integrated approach to forest management in Turkey*

Consisting of 130 projects developed by the Government of Turkey in cooperation with UNDP, the Global Environment Facility and local partners and funded by US \$ 7.2 million. It encourages a comprehensive approach to forest management in Turkey and promotes biodiversity for its economic benefits and Social benefits for Turkey.

- *Turkey's Sustainable Energy Finance Facility (TurSEFF)*

The European Bank for Reconstruction and Development (EBRD) has launched the Turkish Sustainable Energy Financing Facility (TurSEFF) to address the shortcomings of sustainable energy in Turkey. The European Bank provides financing to small and medium-sized enterprises working on renewable energy projects. On Turkey's growing demand for energy, TurSEFF is designed to improve safety in the power supply and support the use of renewable energy instead of relying on fossil fuels.

3.11.2 Egypt

3.11.2.1 Egyptian Environmental Affairs Agency

Established in 1997, it works with all development partners to promote the vision and policies on the environment in Egypt. The goal is to preserve natural resources in the context of sustainable development, reduce pollution levels to improve life and introduce environmental dimensions in all state policies to protect human health.

3.11.2.2 The Strategy

Policy is always seeking environmental protection at the local, regional and international levels. A national environment action plan is developed in consultation with central and local public bodies and NGOs. The program also provides initiatives in the areas of water management, air quality, marine environmental protection, waste management and biodiversity.

3.11.2.3 Implementation

A plan to implement the environmental strategies is provided with general funding and special funding implemented by the executive ministries through the state budget. The government also funds these projects through international assistance funds provided to the Egyptian government, as well as traditional public funding channels.

3.11.2.4 Examples

- *Egypt Sustainable Transport Project (STP)*

The Sustainable Transport Project in Egypt consists of 126 projects in Egypt and is being developed by the Egyptian Environmental Affairs Agency. The project aims to reduce energy consumption and emissions of greenhouse gases related to the transport sector, inhibit the use of private cars and facilitate the transport of goods by trucks because they are considered more energy efficient. Increase the number of goods transported on the railways and inland waterways. STP is designed through the development of high quality and integrated, to reduce the use of private cars.

- *Industrial Energy Efficiency (IEE) Project*

The Industrial Energy Efficiency Project is implemented by the United Nations Industrial Development Organization (UNIDO) and the Egyptian Environmental Affairs Agency in cooperation with the Industrial Development Authority (IDA) and the Egyptian Organization. This project aims at addressing obstacles to industrial energy efficiency. On how to manage Egyptian energy industries by building an approach that combines capacity-building interventions with technical assistance.

3.12 Green Finance in Singapore

Green financing and green investments are among the first targets of countries in the world. Many Asian countries have a green finance market as Egypt, unlike Singapore, one of the poorest countries in green finance; Chang.Y (2019) mentioned the aims for his research to identify obstacles and find solutions to launch green financing in Singapore. The results summarized that Singapore suffers from the heavy financial burden of establishing green investments. In addition to its general perceptions of the so-called "Green Laundry".

The State provided some solutions to solve the obstacles:

- The government initiative provided full government funding for green financing through the implementation of the MAS Green (Monetary Authority of Singapore) Green, through communicating two dedicated companies in Singapore, first company is the CDL (City Development Limited) is a real estate development company, and the second is DBS is a commercial bank that examines the proceeds from green bonds for an approved green building mark. CDL works to improve energy and water efficiency reduce carbon intensity.

- The State of Singapore is working to establish a dedicated market for green financing, linking the country's regional markets to the global market through the Singapore Institute of International Affairs.

3.13 Related works:

Many countries are turning to green financing to solve the problems they exposed to it because of climate change, but they are facing a lot of financial challenges. A study done by (Falcone & Sica, 2019) aimed to investigated showing the challenges of green financing and the financial issues that prevent the implementation of green financing projects in Italy, the results of the study were highlighted, first the green financing that provides opportunities for sustainable development in Italy, second the need to guide long-term goals to reduce the risk of financial institutions in the field of green financing, in additional, there is uncertainty about government policies. While (abd alrasol, 2018) conducted a study that seeks to know the banks' commitment to evaluate the environmental impact of financing and to clarify the role of banks in the field of green financing in Egypt. the study summarized the results of several of the most important the green financing is necessary to support economic and environmental development, lack of sufficient attention in environmental green financing, lack of environmental protection programs in different banks in Egypt, lack of awareness of the importance of the environmental dimension in Egyptian banks, and the necessity of positive participation between banks to achieve profits from green financing projects. The study also recommended the need to build an annual plan in banks that are interested in green financing projects and support them. Furthermore (Shengher & Snousi, 2018) was explained the policies and methods adopted by the island to build a green economy, the results of the study found that the

need to integrate environmental and social issues and establish companies that are working to transform the green economy, mobilize capital to build green financing projects and develop programs of rehabilitation for companies in the field of green finance.

(Imam & Als Salman, 2017) conducted a study to analyze the policies and opinions of Iraqi financial banks and the extent of their orientation to the implementation of green financing projects, after the analysis the data was reached to the results which found the most prominent of which is the absence of support from governmental and non-governmental organizations in the field of green financing projects, and that the financial bank does not support green projects because it needs financial support that exceeds its revenues and the bank also adopts the concept of green financing because it seeks to increase competition among customers and attract many of those who continue in this field. Also the study recommended the need to cooperate in order to provide financial support in the field of green finance. While (Rifat, Iqbal, Nisha, & Suvittawatt, 2016) aimed to investigate to demonstrate the role of bankers towards green financing in Bangladesh using the Uniform Theory of Admission and by (UTAUT) model of technology in commercial banks, the results of this study have resulted in a number of positive concerns in the central bank's systems towards green financing in Bangladesh, also the overall results indicate that bankers are more positive about using green banking services to support sustainable development. Furthermore (EM, 2016) aimed to statement that Many financial institutions are offering green financing products to improve energy use and reduce carbon. The results were found that increasing number of investors looking for new green and green financing opportunities that financial institutions can use to support the financing base and reduce financing costs, financial institutions should give serious attention to encouraging the construction of microfinance projects. In addition, the Green Financing Movement should prioritize its plans and make informed decisions to support these projects because they have a significant impact on reducing the risks of climate change. While (Ahmad, 2016) aimed to clarify the role of green financing in improving the economic and environmental situation in Sudan and after analyzing the data, the results showed that the percentage of green financing taken from banks amounted to about 64.4% of the study community to implement green financing projects, the problems that guide financiers are the difficulty of procedures and

guarantees, in addition to funding in the field of agricultural crops is one of the most targeted activities in green financing, and recommended the study of the need to work to increase the volume of funding to support projects.

A study done by (Santamarian & Ralucaa, 2014) intended to highlight the most important difficulties in achieving sustainable development in order to achieve growth in the development economy Sustainable and green financing in the United States of America, and after obtaining data and analysis reached the results of the most important that there is a global trend to invest in the field of green financing through the financial sector, which is the nerve of the economy, increasing interest in investment in sustainable development and green financing, as well as work on green financing projects in US banks and the World Bank. While (Abed alhaleem, 2014) study aimed to highlight the importance of financial engineering to provide financial (Financial sector) to provide financial products that activate the green financing activity of the transition to the green economy model. The results indicated the need to mobilize capital to move to the green economy, follow the best ways to encourage investment in the field of sustainable development and green financing. The study also recommended the need to combine the public and private sectors to finance environmental projects and green projects.

A study done by (Kaura, Khanna, & Rajput, 2013) aimed to identify the impact of environmental factors in the financial performance of Indian banks, the study pointed to several results, the most important of which are the Indian banks have made great strides in building green financing projects in India. Green financing contributes to reducing environmental risks and achieving sustainable development, as well as the need for Indian banks to support and external financial partnership to achieve sustainable development. While a study done by (Hiddah, 2010) was conducted to demonstrate the contribution of financial institutions to the financing of environmental projects in Algeria in order to achieve sustainable development, after analyzing the data, the result of the study found that environmental finance is an essential and effective element in the environment, the need to work towards the establishment of green investments that take into account the environmental dimension as a key to achieving development Sustainable, Algeria suffers from a significant shortfall in the contribution of national financial institutions to the financing of environmental projects, the main recommendation of the study is the

need to prioritize funding at the national level for the completion and implementation of environmental protection projects, as well as the need for the State to develop and restructure existing funds for project financing Environmental issues. Furthermore, (Dabbas, 2009) the main objective of this conference is to highlight the most important challenges facing the Arab countries in the field of Investing in green projects The results showed that green financing requires financing mechanisms in the form of shares, loans, bonds and other financial means. The financial obstacles may differ from one project to another, but they are strongly linked to the financial financing and structure of the institution's policy Therefore, it is necessary to provide important guarantees and incentives to companies to cooperate between the public and private bottom to provide financial support for these projects and Combine public and private funding to stimulate investment in this sector in the future.

3.14 Green Task Force

The Green Task Force was launched at the Eighth Environmental Meeting in Europe in Batumi in 2016. A progress report was invited to the United Nations Environment Policy Committee for Europe (ECEE), with guidance provided by the UNECE Environmental Policy Committee; all these guidelines have been reported. (Kato.T, 2018).

3.14.1 Overview of Key Achievements:

- At the regional level, three annual meetings of the Green Task Force were organized by the Organization for Development and Cooperation in 2016 in Paris, in 2017 held in Almaty, in 2018 was held in Bratislava, the number of people between 60 and 90 people to Exchange the experiences to meet challenges.
- At the national level in 2016, the Organization for Economic Co-operation and Development organized several policy dialogues on green work aimed at supporting and discussing high-level inter-ministerial policies related to green growth initiatives. include the following:
 - Held three dialogues in Kazakhstan to discuss with the Kazakh policy makers who have moved their country towards the green economy in the light of the challenges they faced.

- Two policy dialogues were held in Georgia to mobilize green financing for discussion on measures to expand green funding and review capital and instrument sources need it.
- A dialogue was held in Kyrgyzstan on the Sustainable Financing Roadmap project.

3.14.2 Challenges from activities conducted under the Task Force:

Although progress has been made in integrating the economy with the environment, there are challenges encountered in implementing such as:

- Lack of comprehensive policies that promote the green economy transition.
- Political and economic instability as it leads to a constant change in priorities and delay in implementation.
- Lack of awareness in economic development.
- Lack of policy support for green investment
- Lack of practices in green technology in environmental conditions.
- Lack of implementation of green economy initiatives due to lack of coordination with other ministries such as the Ministry of Finance.

3.15 Green Financing-A Proactive Approach towards Green Growth

Due to the increasing need for energy in our daily lives and the fear of global warming, it has stimulated investment in green financing, which has urged financial institutions and companies to pump money in the field of green financing and sustainable development, which helps to meet the needs of people with the least impact on the environment. (L Gaikwad.K and Gautam.R, 2019).

3.15.1 Green approach initiatives by economies

The shift to green economy strategy leads to increased productivity and growth in green finance. There are some examples of programs that reflect these ideas, for example:

- The program adopted by the Republic of Korea to adopt a strategy for green growth and renewable energy, which aims to help countries, especially developing countries, by allocating 2% of the domestic output of these countries.

- The program in Mexico City has made efforts to promote a bus system that uses specific city streets, designed to reduce travel time, reduce air pollution and improve public transport, and observed the remarkable success of cities across Mexico in public transport.
- In China, China is one of the countries that invest in the renewable energy sector, pushing for a national policy and a competitive advantage in renewable energy.

3.16 Increase green investment in ASEAN

Some of the solutions offered can be used to increase green financing in ASEAN, such as: (Zadek.S, 2017)

- Supporting cooperation in green investments to develop projects.
- Increase investment in green financing over the long term by increasing the efficiency of the financial system to allow the purchase of green assets that are directed by banks such as green bank loans.
- Holding initiatives to demonstrate financial risks related to the environment.
- Develop green financing tools and build new tools to improve the environment and reduce environmental risks.
- Obtain deeper investment in green financing and strategic use of public funds and financial products.
- Provide digital finance to support small and medium enterprises with green financing and increase the number of intermediaries.
- Strengthen the financial system's ability to mobilize green funding to identify system needs and support the expansion of green financing

3.17 Foundations of the Transformation toward Green Economy of Nineveh Governorate.

The problem of environmental pollution is one of the most serious problems in the twenty-first century, which is attributed to high population growth and economic growth, many factors contributed to the pollution of the environment in Nineveh.

The idea of transition to green financing and changes in government policies to stimulate green funding in the province. (Albamerney.B and Jamil-Al.S, 2018)

3.17.1 CHANGES TO THE GREEN ECONOMY:

There are priority sectors in which to move towards the green economy, which includes:

Agriculture: Agriculture is a key sector in developing countries because it is the source of income for the poor.

Forests: Here it involves how to manage and invest in the forest sector because it enters as a class of asset classes that bring significant benefits to society. (UNEP, 2011).

Water: Because freshwater resources are declining worldwide and water quantities are diminishing despite increased demand and increased use.

Transport: The transport sector is urgently needed to achieve economic development by providing economic opportunities and achieving social integration by linking rural areas and cities with each other, thus facilitating access to markets.

Waste: Waste affects the economy of countries because it can be converted and reused, and it presents the environment with risks that have not been recycled in line with public health.

Industry: Governments and companies in the polluting industrial sectors can shift climate change pressures into economic opportunities, thus supporting sustainability in the industrial sectors, enhancing their economy and their environmental performance.

Tourism: The tourism economy is one of the largest economic sectors in the world. It occupies the fourth position after oil and chemicals. It accounts for 5% of the world's total output and contributes 6-7% in employment.

3.18 The Global Green Finance Index 2 (GGFI 2)

The second version of green funding was issued, and the conclusions reached were summarized as follows: (Dunlop.K and Mainelli.M, 2018)

Recognizing the importance of policies and seeking investors to support growth in green financing markets and not fearing the use of policy and regulatory interventions to promote green financing.

The suffering of the large centers associated with the old structure, which has large amounts of green financing, was worse in terms of quality. The small centers have gained high fame in the field of green financing.

Centers with a broad approach to green investment and sustainability work better than other centers. Financial markets point out that financial centers need several factors in their work, such as infrastructure and green financing markets, to be seen as leading green financial centers.

The spread of green financing in the labor market shows strong interest in green financing.

The financial centers improve their green financing offerings through cooperation and leadership and thus encourage political frameworks.

3.19 Conclusion.

Starting with Concepts and History, this chapter discussed several meaningful standpoints concerning the green finance issue. The later concept characteristics have been addressed where capital, stock markets, shareholders analysis, management and other financial standpoints adhered to banks processes were discussed. Green Finance Initiatives like The Global Alliance for Banking on Values (GABV), Islamic Banks and European Initiatives were handled since they represent essential promoting agents. The core issue "Green Finance and Banks" and the Banks' Perspective towards Green Finance were also kept in touch beside the International Motives toward Green Finance with their Major Initiatives, Axial international standards & initiatives and Green Finance Standards and Guidelines. Also, the new banking trend "Green Finance from Islamic Perspective" was afforded from two standpoints of view i.e. Religious obligation of sustainability and Islamic Sharia "Law". Accordingly, in concern with sustainability development and Green Finance, the fore coming chapter will discuss the banking frame working in Libya as to make a link between the previous theoretical views mentioned in this chapter and what is being actually practiced - and will be practiced in future- in this banks.

Green financing is one of the most widespread solutions at present because it has a positive impact on countries. Financing green economy is one of the most competitive projects for renewable energy, sustainable development and carbon reduction.

The green financing needs financial support through banks through the provision of bonds, loans and capital to support and encourage the construction of these projects. The banking sector must be activated towards sustainable development and building plans and strategies for banks to put green financing from their first goals. Green financing is the only solution to ensure that countries continue and reduce the risks they face.



Chapter 4

The Libyan banking sector and sustainability

4.1 Introduction

Study of bank's practices towards sustainable development has received increasing attention in recent years. This is due firstly, to the rapid globalization of the financial industry and secondly to increasing competitiveness in international financial markets towards green economy and sustainability.

On the other hand, the performance towards sustainable development of the banking system is one of the most important issues in the financial market of a particular country especially in developing countries since the well-functioning financial system basically performs two leading roles. The first is to facilitate payment and transaction services and provide financial instruments to protect investors from the risks inherent in economic activity and against exogenous shocks. The second is to catalyze economic growth by efficiently mobilizing savings into profitable investment opportunities and screening firms in order to ensure the proper use of such financial resources.

Even though structural features of banks and banking system result in varying degrees of influence, cross-country studies show that countries with financial systems that foster capital accumulation and enhance efficiency in the allocation of resources tend to have higher and more equitable economic and community growth over the long run.

The banking system in Libya is a newly-developed independent system and plays a vital role in developing the community and national economy in parallel. Thus, this chapter will provides analysis regarding the history, frame structuring and performance practices of Libyan banks over the period from 1950th. Up to 2019 depending on the relevant literatures and reports as to explore the interrelationship between banking activities and progression of sustainability. In addition, discovering the post2011 revolution banking status in general and towards settling the basis of the Islamic banking in Libya in particular.

So, the main sections that will be discussed will represented in; The Libyan Banking System, General Framework of Libyan banking system and Libyan Banking System and Sustainable Development.

4.2 The Libyan Banking System.

4.2.1 Inception and development of the Central Bank of Libya (CBL, 2010)

The Libyan banking system has gone through three phases. The first phase began with the establishment of the Central Bank and its startup in 1956 and ended with the promulgation of the Banking Law No.4 by 1963. The second phase included the implementation of this law ended with Al-Fateh Revolution in 1969. The third phase extends from Al-Fateh Revolution till now.

The Libyan Central Bank (CBL) was established under Law No.3 issued by 1955 under the name of the National Bank of Libya which started its operations in Tripoli on April 1st, 1956. It was entrusted with the functions of the Libyan Currency Committee which was established in 1952. It was limited by powers where one of its main tasks was maintaining the coverage of the currency issued in Australian assets. At the beginning of its activity, it had no role in controlling money supply, bank credit or superintendence of banks. Then, it opened a branch in Sabha in April 1957 and another branch in Benghazi in August of the same year. In 1958, it was able to issue the first banknotes holding its name as the first financial institution in the country.

With the promulgation of Law No.4 by 1963, the bank's name was changed to the "Bank of Libya" instead of the National Bank of Libya and issued new banknotes holding its new name. Its tasks were defined and it was granted all powers, including authorization to set the maximum credit and debit interest rates, the commission rate, the liability rate and the balance liability rate. The law also required the commercial banks to deposit obligatory cash reserves at the CBL without interest for their deposit liabilities.

By November 1969, the Libyan Revolutionary Command Council issued a decision of nationalizing the foreign banks as to be able to exercise the monetary policy. The decision stipulated that all banks operating in Libya should take the form of joint stock companies of which the Libyans own equivalent to at least 51% of the paid-up capital. Since then, the CBL has been controlling all the commercial banks operations and activities.

By 1971, with the promulgation of Law No.63 on the amendment of some provisions of the Banking Law No.4 issued by 1963, the name of "Bank of Libya" was changed to the Central Bank of Libya and it was given more powers to supervise and monitor the

commercial banks. The currency's title was changed from the Pound and the millime to the Dinar and the Dirham at the same equivalent value of the currency.

Relaying on the Banking, Monetary and Credit Law No.1 issued by 1993, the CBL and the commercial banks were able to cope with economic and international developments and obtained wider powers to carry out the tasks assigned where article No.34 of the law defines the general rules for the implementation of monetary policy and credit. For the purpose of encourage foreign capitals to invest in Libya; Law No.5 was issued by 1997.

Law No.1 issued by 2005 on banks and cash is deemed one of the most supportive and encouraging laws to keep pace with the rapid developments in the field of credit, monetary and banking policies, to address the difficulties experienced by the banking sector and to fill the gaps whose results emerged while enforcing previous laws. Articles of this law stipulate:

Article No.1: The CBL is a wholly state-owned independent institution. It holds the monetary authority throughout Libya and enjoys the legal entity and the independent financial disclosure. It follows the secretariat of the General People's Congress (GPC). It carries out its functions within the framework of the State's general policy. It has the right to develop systems and regulations related to its operations and financial and administrative affairs by decisions of the board without interference or pressure from the State's executive regime.

Article No.4: The CBL's assets are its own funds and cannot be attached to pay debts owed by other bodies. The CBL's authorized banking capital has been set at LYD 500 million and may be increased by a decision of the GPC's secretariat. The CBL's board consists of the governor as the executive, the deputy governor as the vice-president and other six members. The governor manages the CBL's affairs. The governor and the deputy governor are chosen by a GPC's decision for five years and may be re-signed.

Article No.5: The CBL shall have the following functions (CBL, 2005).

1. Regulating and issuing banknotes and coins.
2. Maintaining the availability and functioning of the movement and stability of Libyan cash inside and outside the country.
3. Managing the State's reserves of gold and foreign currencies.
4. Organizing bank credit in terms of size, type and price, to ensure the real needs of economic growth and monetary stability.

5. Taking necessary measures to address national and international economic or financial turmoil.
6. Acting as a bank of commercial banks, monitoring them, ensuring their safe financial conditions, monitoring the efficiency of their performance and guaranteeing the rights of their clients.
7. Acting as a bank and the fiscal agent of the State and advising it with regard to making and evaluating the economic and financial policy.
8. Monitoring the foreign exchange and regulating and supervising the foreign exchange market.
9. Issuing and managing loans related to the State's financial, economic and commercial transactions.

4.2.2 CBL Budget.

The CBL's budget is formed through its sources of funds and uses based on the level of annual assets and liabilities.

First: Assets.

They include the issuance of currency and assets of banking operations.

Issuance of the currency:

They represent the currency cover and consist of foreign bonds, treasury bills and balances in convertible currencies and constitute the highest ratio of the issuance cover. The remainder is covered by cash gold and Libyan treasury bills.

Assets of Banking Operations:

They are represented in treasury foreign bonds and bills, balances in convertible currencies, public debt granted to the Treasury in the form of loans and advances to the Treasury, Libyan treasury bills and bonds, loans and facilities to some public bodies represented in public institutions and commercial banks, as well as local and foreign shares and investments, that include shares of the capitals of local banks, the capital of international and regional banks and institutions, the external capital of the Libyan Arab Bank and other investments, and a small ratio representing cash in the fund and represented by the currency in the banking operations department in addition to other assets.

Second: Liabilities

They include currency issuance liabilities and liabilities for banking operations.

Currency liabilities:

They include currency outside the CBL, whether in the hands of the public or in the commercial banks (represents only 5%), and currency in the banking operations department (does not exceed 0.4%) of the currency issued.

Liabilities for Banking Operations:

They include capital, general reserve, contingency reserve and deposits which represent the current accounts of the Treasury, public institutions, commercial banks and foreign banks, in addition to allocations, reserves and other liabilities.

By tracking the CBL's total assets and liabilities it could be noticed the relative importance of the assets and liabilities of the currency issuance and the assets and liabilities of the banking operations, which have seen significant development through increases in the growth rate during the periods 1985, 2005, 2013 and 2018 Appendix: Appendix: Tables (4-1) - (4-6)

4.2.3 CBL's regulatory functions:

Concomitant with what it has been established for, and according to the functioning laws, constitution and regulations in Libya, there are several functions managed by the CBL. Although, there are several major regulatory functions closely linked to the banking business in Libya (Figure 4-1) which can be reviewed as follows:-

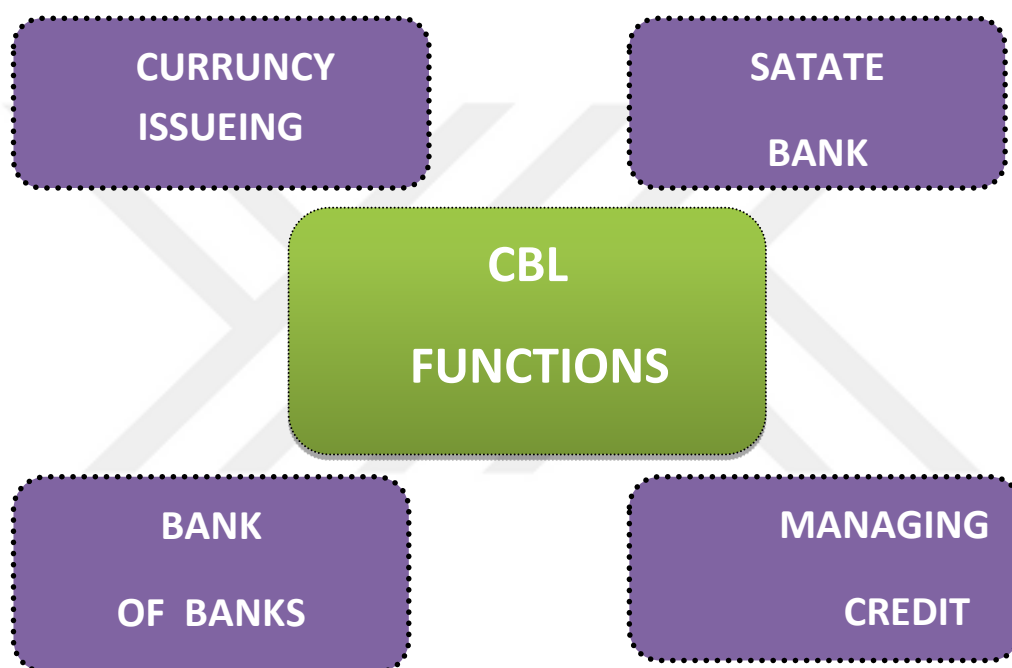
4.2.3.1 Currency Issuance and Regulation

In accordance with of Article No.30 of the Monetary and Credit Law No.1 issued by 2005, the CBL has the privilege of issuing cash in Libya. Cash means (paper money and coins) as the paper money should bear the signature of the governor, and the monetary unit in the Great Jamahiriya is the Libyan Dinar which is divided into 1,000 units each called Dirham. The CBL's Board of Directors determines the equivalent value of the Libyan Dinar in special drawing rights (SDR) units or in any convertible foreign currency or according to the interaction of supply and demand forces in the foreign exchange market. The CBL also determines the exchange rates of the Libyan Dinar against foreign currencies according to the foreign exchange of these currencies against the SDR units.

According to Article No.36 of the law No.1 issued by 2005, and pursuant to the principle of diversification of the issuance cover, the CBL shall correspond to the total value of paper money and coins permanently in circulation in specific assets, most of which are assets denominated in convertible foreign currencies, bullions or gold coins and a SDR unit, so that each is not less than 30% of the total issuance assets and

securities issued and guaranteed by international financial institutions or foreign governments. To provide the CBL with some flexibility in identifying the assets that correspond to the cash issued, these assets include local assets such as treasury bills and bonds issued by the Treasury in Libya so that their value does not exceed 20% of the total assets of issuance. There are no restrictions on the freedom of issuance except the specified amount of gold and the treasury bills as cover for the currency issued. (CBL, 2005).

Figure (4-1): Showing CBL's Regulatory Functions.



Source: Designed by Researcher relayed on literature reviewing.

4-2-3-2 Bank of State

In accordance with the provisions of Articles 2, 5 and 10 (of the above-mentioned law), the Central Bank of Libya (CBL) shall act as the State's fiscal agent that keeps the accounts, revenues and expenses of provinces. It shall also pay, transfer and collect funds at nationally and internationally level and manage letters of credit on behalf of its customers, under the items agreed upon between the CBL and the Ministry of Finance in accordance with the following terms :(CBL: Economic Bulletins)

- 1- Such advances shall not exceed one fifth of the total income estimated in the budget.

2- The advance should be paid at the end of the fiscal year in which it was made and no advance may be made to the Treasury in the fiscal year until advances made in previous years are repaid.

4-2-3-3 Bank of Banks

The CBL maintains the mandatory cash reserve required from commercial banks as a share of the deposits of their customers. Besides, the CBL accepts time deposits from these banks for annual interests. As to enable commercial banks to use and invest their resources effectively, the CBL reduced the interest rates on commercial banks' deposits that are kept at the CBL from 1997-2000 to only 2%, down from no higher than 3.5% in 1994. Subsequently, a decision was issued in 2005 to reduce the interest rate granted by the CBL on commercial banks' deposits that are kept at the CBL to 1.75 %.(**CBL: Website**)

In order to confront any exceptional circumstances that threaten the Libyan monetary and banking stability, the CBL can grant commercial banks special loans for a discount rate. The re-discount rate in Libya is the rate determined by the CBL when it deducts the commercial papers offered by commercial banks for re-discount. In this case, the CBL receives a certain share that is less or equal to what the commercial bank has received when it first deducted it.(Amal Abu Bakr,2000) By issuing decision No. 8 by 2004, the re-discount rate was reduced from 5% to 4%.(**CBL: Website**).

4-2-3-4 Bank Credit Management:

To achieve the CBL's functions towards the credit management, influence its size and supply of funds to ensure the real needs of the economic activity areas including production, services and so on, CBL adopted and considered several tools, namely:

A- Determining the liability rate; the CBL is the last resort for lending.

B- Determining the legal reserve rate; the CBL determines the rate of legal reserve imposed on commercial banks and then determines their excess reserves.

Commercial banks hold a mandatory cash reserve at the CBL depending on the required reserves. According to the bank-accounting system, commercial banks and their branches are considered as a single unified unit. It is one of the means by which supply of funds can be controlled since article No.36 of Law No.1 issued by 1993 stipulates that commercial banks should deposit at the CBL a reserve standing at 5-20% on savings deposits, and 40% on current deposits.

Pursuant to Article No.36 of Law No.4 issued by 1963, this ratio was set at 10% on demand deposits and 5% on savings deposits. By the year 1966, and as a part of the anti-inflationary measures taken by the CBL, this ratio was increased from 10% to 15% on demand deposits and from 5% to 7.5% on savings deposits, seeking the CBL's support by giving them loans in case of a liquidity crisis. It is mentioned that this ratio has remained unchanged for a long time.

Table (4-7) evidenced that the development of the required cash reserve and the excess reserve at commercial banks during the period from 1985 to 2005 (in MD). The required cash reserves are tracked in their development of total bank deposits. By tracking the development of total bank deposits, the effectiveness of the interaction of these banks with the public could be inferred, a matter that reflects the dynamic of local economic growth.

In conjunction with the CBL's functions towards the credit management, size and supply of funds to ensure the real needs of the economic activity areas including production, services and so on, the period from 2013 to the fourth quarter of 2018 experienced several booms in various fields and activity domains, despite the events witnessed by Libya. This is evident through the CBL's assets and liabilities during those years. Following tables show those activities and their rate of effectiveness according to the functions supervised by the CBL (Appendix: Tables (4-3) - (4-6)

C- Determination of credit and debit interest rates:

The CBL is responsible for determining the debit interest rates imposed on loans granted by the commercial banks to their customers and the credit interest rates imposed by commercial banks on their deposits.

Debit interest rates: Could be identified to be the return received by commercial banks for providing loans and credit facilities to their customers. It is one of the CBL's means to influence the volume of credit provided by commercial banks for the private sector but does not affect the application for loans by the state-owned enterprises.

Credit interest rates: Could be identified to be the imposed rates by commercial banks on their deposits.

D- Determination of liquidity ratio of commercial banks:

The CBL can control the volume of credit by controlling the banking liquidity ratio, as reducing the volume of credit requires it to raise the liquidity ratio and increasing the volume of credit provided by commercial banks requires it to reduce this ratio.

E- Open Market Operations:

Despite the adoption of development plans in the Libyan economy since 1973 in the public sector mainly, but since the mid-1980s, several laws and legislations have been issued to govern the role of the private sector in economic activity, which is an essential pillar in the establishment and revitalization of the capital market. Despite the availability of the underlying determinants of the Libyan stock market, such as geographical location and the availability of good investment opportunities, there are many other requirements that should be met such as solving the problems facing commercial banks in the form of debts for which collection is considered doubtful, increasing interest in infrastructure, privatizing the public sector, increasing efficiency, improving productivity, establishing brokerage firms, increasing real per capita income, and liberalizing the Libyan dinar, stabilizing it and maintaining its purchasing power.

The ownership base has been expanded and the banking sector has been restructured and developed. The Libyan dinar exchange rate has been unified and fixed against the unity of the special drawing rights (SDRs) and changeable against other foreign currencies as a result of their change against SDRs. All these actions were taken under the comprehensive vision adopted and supervised by the CBL. Hence, there has been an explicit call for the establishment of a financial market in Libya by the issuance of Law No. 21 and its implementing regulation. (CBL, Economic Bulletin, 2002).

F- Qualitative and specific control:

The Libyan law has granted the CBL a myriad of direct and indirect means and mechanisms that put it as the first controller in the objectives, policies and activities of commercial banks and direction of investing their funds in certain areas. Examples of this are the provisions of the various laws and decisions that achieve the principle of qualitative control:

- Paragraph (3) of Article (34) of Law No.1 issued by the year 1993 authorizes the CBL to prevent commercial banks from investing their funds in certain areas. Article (41) of the same law stipulates the mechanisms used by the CBL to intervene directly

to the extent of liquidating the activity of the commercial bank which does not comply with its instructions.

- Article (71) of Law No.1 issued by the year 2005 obligates commercial banks to notify the CBL of their decisions related to the long-term investments and opening or canceling branches within ten days of the date of issuance.

- Article (73) of the same law obligates commercial banks to maintain the capital reserve and transfer at least 25% of net profits to this reserve before the distribution of profits until the reserve amounts half of the paid capital and then transfer 10% of net profits until the reserve becomes equal to the paid capital. (CBL, Website)

- The board of directors of each commercial bank shall develop the rules governing the granting of credit and the procedures to be followed to ascertain the credit worthiness in accordance with the credit policy determined by the CBL.

Despite these tasks assigned to the CBL as primarily organizational tasks, however, with the increasing data of globalization and its economic prospects posed in different concepts and the effects that can be dealt with in order to benefit from their positive aspects or overlook their negative aspects, the greatest and most important of the CBL comes to serve as a lifeline towards the transformation of the market economy in Libya which lived nearly thirty years of socialism followed by other years of an authoritarian central planning.

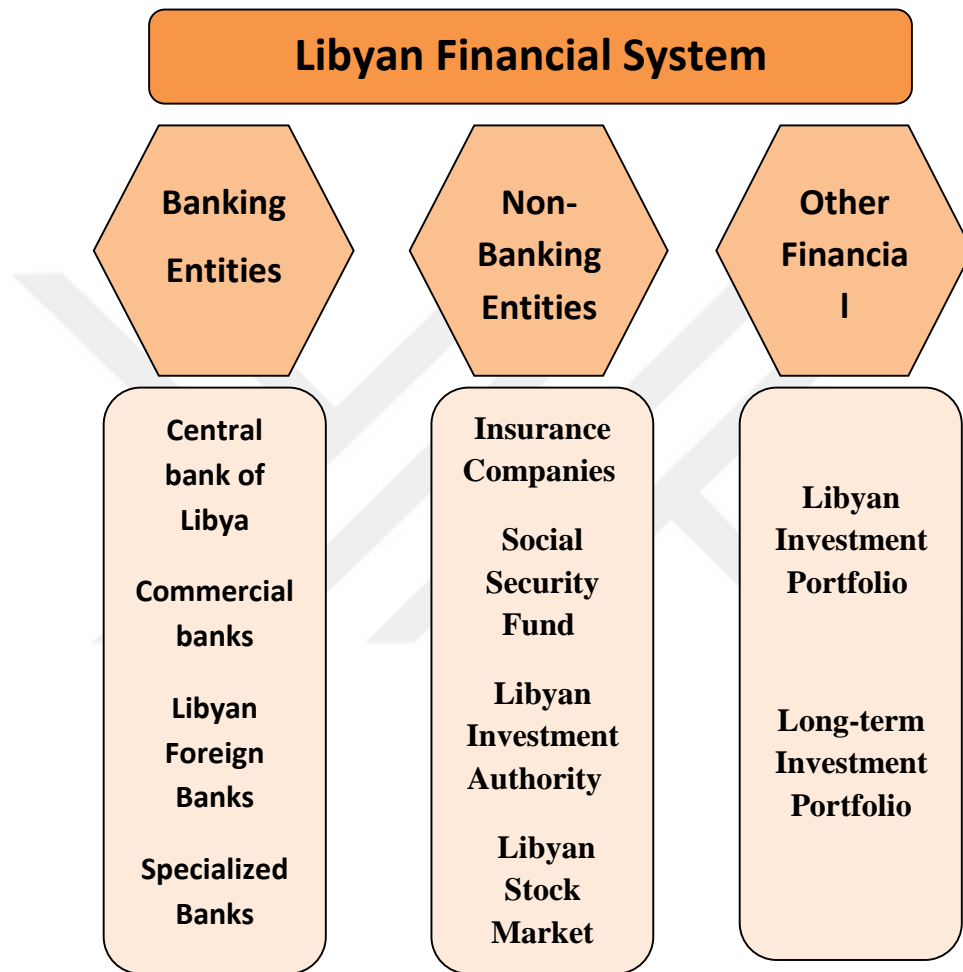
The great jumping step started by the year 2003 concomitant with the reformation of the objective role of the central bank in order to encourage managing monetary policy towards Libya's economic reform program 2003 -2010. The significance of these objectives could be reasoned as the 2003 is the time just after UN and US sanctions removal. (Aboasnina, 2014).

4.3 General Framework of Libyan banking system.

General speaking and according to what is being substantially settled, Libyan financial system components could be categorized into three main bodies i.e. (banking entities, non-banking entities and other financial entities) as shown in figure(4-2). Where, banking entities are those structured bodies that have license to practice commercial activities and share in investment and other daily developmental practices. On the other hand, non-banking entities (For example; insurance companies, social security fund, Libyan investment authority and Libyan stock

market) were those bodies that haven't license to practice commercial activities directly like true banks but share in the assets of the financial sector with limited percentage. Finally, other financial entities (For example; Libyan investment portfolio and, long-term investment portfolio).

Figure (4-2): Showing Libyan Financial system components.



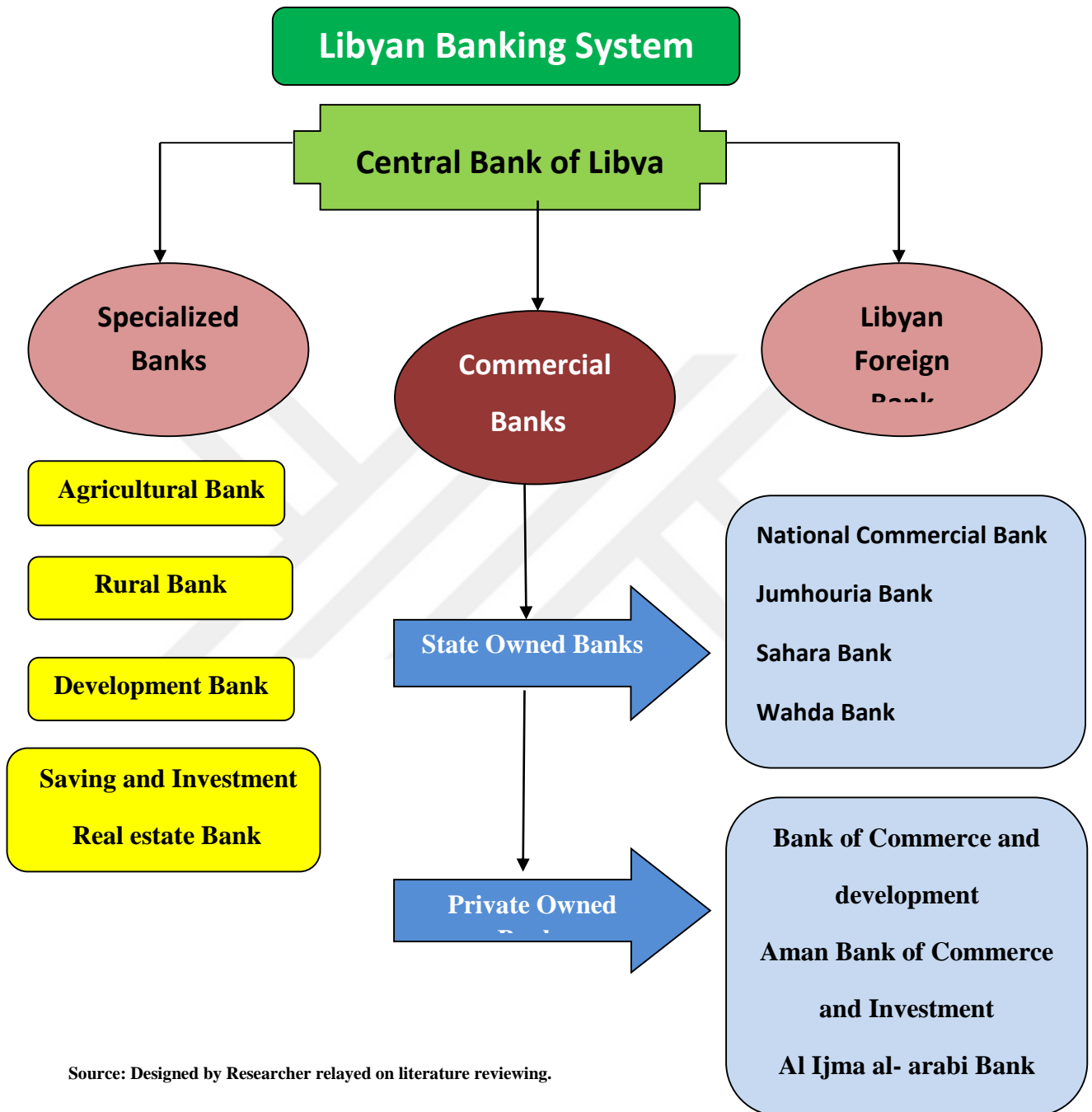
Source: Designed by Researcher relayed on literature reviewing.

4.3.1 Libyan Banking Entities.

Depending on the nature and specialty of the services offered by the bank, ownership, locality, national and international communication dealings and economic sectors-related activity, Libyan licensed banks could be classified into three main classes i.e. (Commercial banks, Libyan foreign banks and specialized banks) as shown in figure

(4-3). But all those banks are controlled by central bank of Libya as the bank of banks.

Figure (4-3): Showing Libyan Banking system frame structure.



Source: Designed by Researcher relayed on literature reviewing.

The following table shows the chronological order of the establishment of individual Libyan banks, in addition to the equity participation of public and private sectors in these banks.

Table (4-8): Showing the chronological order of the establishment of individual Libyan banks.

NO.	Bank	Establishment Date	Public Sector Contribution	Private Sector Contribution
1	National Commercial Bank	1970	85.6	15.0
2	Jumhouria Bank	1969	86.6	13.37
3	Wahda Bank	1970	54.0	27.0
4	Sahara Bank	1964	59.0	22.0
5	Bank of Commerce & Development	1995	17.0	34.0
6	Alejmaa Bank	2004	0.0	100.0
7	Alwafa Bank	2004	0.65	99.35
8	Aman Bank	2003	0.0	60.0
9	North Africa Bank	1997	82.0	18.0
10	Unity of Libyan Dinar Bank	2012	0.0	0.0
11	Alwaha Bank	2006	100.0	0.0
12	Mediterranean Bank	2006	0.0	100.0
13	Arab Commercial Bank	2007	0.0	100.0
14	Sari Bank	2007	0.0	100.0
15	United Bank	2007	3.0	57.0
16	First Gulf Libyan Bank	2008	50.0	0.0
17	Libyan Qatari Bank	2010	50.0	0.0

Article No. 16 of Law NO. 1 governing the practices of banks, issued by 2005, provides that Central Bank of Libya (CBL) shall directly exercise the authorities related to achieving its goals and objectives, implementation of the monetary, credit and banking policies, and exercising these policies within the scope of the state policy. To that end, CBL shall have the right to exercise all powers, including the establishment of banks. The text of this article reads as follows: "It is permitted to establish commercial, specialized, finance, and investment banks, and establish regulatory framework to exercise activities, incorporation contracts forms and statue"

This text vests powers to CBL to authorize banking financial institutions to invest within the boundaries of the country, including commercial banks, specialized banks, finance and investment banks, and other banks and institutions engaging in banking activities. However, the powers of CBL are not limited to granting licensing on request, as the legislator of Banking Act established some rules to exercise licensed activities.

According to Banking Act, licenses may be granted to financial institutions exercising banking business according to the following:

First: Commercial Banks.

Subsection No.1 of Article No.56 contains a definition of commercial bank and provides that "a commercial bank is any company regularly accepting deposits in current accounts to be paid on request, or deposit accounts, granting loans, and exercising other banking business". Thus, commercial banks shall practice the following businesses:

- a- Accepting deposits of all kinds and opening current accounts for clients.
- b- Granting loans, advances and credit facilities.
- c- Collecting cheques drawn from, or on, clients.
- d- Opening documentary credits.
- e- Exercising other banking businesses.

Accordingly, commercial banks shall be competent to deal with monetary assets, such as accepting deposits and granting loans. Thus, commercial banks shall be prohibited from directly engaging in investment or practicing whole sale and retail trade, import, export, commercial mediation businesses, or real estate and lands speculation. Commercial banks shall also be prohibited from owning properties except to the extent that they need to practice their activities and staff housing. (Al-arbah, 1996).

Article No.77 of this Law confirmed the above-mentioned prohibition and added prohibition of owning shares of joint stock companies contributing in the capital of banks and other companies with a value exceeding (10%), engaging as a joint participant in partnership and other similar companies, accepting the shares which constitute the capital of banks as guarantees for loans, or repayment for debts of third party, purchasing any shares of any Libyan general bank, or issuing shareholders' bonds payable on request.

Second: Specialized Banks.

According to the Libyan banking law No.1 of 2005, specialized banks may be defined and known to be "specialized entities. This means that they shall not be considered as commercial banks either in their nature or in their actual activities (Gait, 2009).

According to section No.1 of article No.65 of this Law "a specialized bank is any bank whose main purposes are financing and extending credits for specific activities,

provided that accepting demand deposits shall not be one of its main activities. CBL board may give permission to specialized banks to exercise some of commercial banks' activities in respect of the beneficiaries thereof".

Accordingly, specialized banks are financial institutions whose role is to collect savings of different sectors of society, whether they are individual, general sector, or private or general projects, in order to place them at the disposal of these units, aiming to constitute industrial, agricultural, and real estate capital to increase the productive capacity of the society (e.g. agricultural, industrial, real estate, and tourist banks etc.).

By the way, when comparing those banks to the commercial and the non-banking entities, a number of specialized banks have also been established to support and finance specific and diversified developmental projects related to different sectors such as agriculture, housing and industrial activities, and for other specific purposes in such a manner that at the end of 2010, four specialized banks were working in practice field in Libya namely; Agriculture Bank, Saving and Real Estate Investment Bank, Development Bank and Rural Bank.

Those four specialized banks will be discussed briefly as follows:

Development Bank

It was established under the umbrella of the Law No.8 of 1981 as a specialized bank with an ownership for Libyan state for the purpose of developing the Libyan local governorates economies, creation of jobs and raising community's living standards to achieve sustainability. By 2016, it has 27 branches around Libyan governorates. (Central Bank of Libya, 2014).

Rural Bank

By the end of 2002, rural bank has been established, the entity that considered to be the most social and developmental in nature. It is mainly owned by the Libyan government, starting with a capital of 100 million LYD, and is mainly devoted to finance individuals and families of limited income to invest through different activities in various economic fields (Central bank of Libya, 2012).

The objective philosophy of this bank is to improve and develop the rural communities in Libya by providing loans to support SME, industrial and services projects in these communities to be involved in developing Libyan sustainable economy (Gait, 2009).

According to the central bank reports, the number of loans granted by the bank since its inception is more than 150,000 loan with a total value of 624 million LYD, as the share of the service sector. Also, statistical reports indicate that the majority of loans of this bank were directed to livestock breeding and the remainder is distributed between the agricultural, industrial and fishing sectors (Central Bank of Libya, 2014).

Bank of Agricultural

One of the oldest specialized banks in Libya since it was established in 1959 under the title "National Bank of Agriculture". The main objective of this bank is represented by providing short and long-term loans to Libyan farmers with the aim of promoting of their agricultural projects (Gait, 2009). It is worth noting to state that Long-term loans accounted for 67% of the total loans granted by the bank that were estimated to be more than 113 million LYD during 2011 alone. (Central Bank of Libya, 2014).

Saving and Real Estate Investment Bank.

It was established in 1981 to Law No.2, for the purpose of financing real estate activities through providing loans whether to the corporate or individuals as to invest in real estate and housing (Gait, 2009).

In 2011, the number of mortgages granted by the bank was evaluated to be 5745.7 million LYD (Central Bank of Libya, 2014).

Third: Finance and Investment Banks

Unlike specialized banks, finance and investment banks provide necessary funds for new industrial projects and expand established industrial projects. Finance and investment banks may generally seek investment opportunities, define investors, and finance investment projects adopted by these banks. Development banks are a good example in this field (Al-arbah, 1996).

Fourth: Other banks

Also, according to subsection No.9 of article No.16 of Law No.1 governing banks' business, issued by 2005, there are other banks to be authorized, as "and others" means and other banks, which means that Central Bank of Libya may authorize any other activity in respect of banking business, other than the business exercised by commercial, specialized, and finance and investment banks under any name.

The importance of the involvement of these banks is to drive national economy and subsequent development which has an impact on the quality of life which is sought to be achieved through sustainable development. The reality of this participation may be indicated through the illustrated data [Appendix: Tables (4-9) - (4-12), where they are showing the volume of the transactions of Libyan commercial banks during the period from 2007 till the fourth quarter of 2018.

4.3.2 Operating Banks in Libya.

There are now 16 local commercial banks in Libya, four of which are specialized banks, in addition to 22 Arab and foreign bank offices. (www.uabonline.org).

Jumhouria Bank, Sahara Bank, Wahda Bank, Umma Bank, National Commercial Bank, and Libyan foreign bank are on top of this list, in terms of establishment oldness, capital, number of clients, volume of financial transaction, variety of activities and contribution in national economy.

According to the importance of these banks, they can be reviewed as follows (Table 13): **Jumhouria Bank** (Annual report of Jumhouria Bank board 1996).

It has been established during English rule and after World War II, when Libya was invaded by Britain in 1944. At that time, the bank was named (Barclays DCO). After Libyanization decision on 1969, the bank began its banking business under the name (Jumhouria Bank). Then, according to Law No.66 issued by 1970, the ownership of the shares of the bank was transferred to the Libyan government. When the bank begun its business under the name of (Jumhouria Bank), it was estimated that the bank capital was (750,000 LD), fully paid by Central Bank of Libya. The bank continued to provide its banking services for its clients, which lead to more development, as the paid and authorized capital of the bank was (40,000,000 Libyan Dinar) in 1996 .In 2002 the capital of the bank was approximately (40,000,000 LD). Like any other Libyan bank, Jumhouria Bank, in order to disseminate banking services allover Libya, it established 55 branches distributed allover governorates of Libya and make it available for citizens to access these services easily.

Jumhouria Bank is one of the biggest commercial banks in Libya in terms of assets, as its value was approximately 24.9 billion dollars in the first half of 2013. Thus, its market-share controls nearly 38% of pooled assets of commercial banks in Libya

(Table 4-13).It are worth noting that the bank under the name (Jumhouria Bank) remained active even after the merger between Umma Bank and Jumhouria Bank.

Sahara Bank

Sahara Bank is one of the biggest commercial banks operating in Libya. It contributes to a great extent in the national economy of Libya as it considered as a source of credit for a variety of economic and investment activities. The bank begun operating as a joint stock company in 1964 with a bank capital distributed on Libyan citizens (51%), America Bank (29), and Sicily Bank (20%). In 1969, the bank was libyanized as one of the commercial banks operating in the great Jamahiriya when CBL purchased the shares of America Bank; at the same time of the devolving of Sicily Bank share as a part of the refunds. (Alarbah, 1985).

The bank continued operating as joint stock Company whose capital was owned by CBL (82%) and private sector (18%) at the time of raising its capital to 525,000 LD. In 2000, its capital was raised to 63,000,000 LD, which remained fixed for a period of time. According to the budget of the year 2001, the total assets value was 1,951,788,537,000 LD, and the profits were 14,147,586,000 LD, while total debt was 108,378,244,000 LD at the same year. The main headquarter office of Sahara Bank is located in Tripoli and, like any other commercial bank, conduct banking business, such as accepting deposits, granting credit facilities for different sectors, issuing letters of guarantees, opening documentary appropriations and conducting other banking business. The policy of the bank requires the expansion and geographical spread of the bank in Libya, so that its branches cover all governorates of Libya. Thus, the 37 branches of the bank are distributed in all Libyan governorates.

Umma Bank

Umma Bank (De Roma Bank in the past) was established in 1907 according to an agreement between Italian and Turkish governments in a late era of Turkish rule in Libya. The bank was first established to serve the purposes of Italian government as it played a big rule in paving the way for invading Libya and destroying national economic. The bank continued to serve the purposes which it was established for until the great Al-fateh revolution (1969) where the revolutionary decision (Libyanization decision) was acted and it required that all names of commercial banks shall be changed into Arabic names, thus, de Roma Bank became Umma Bank. As soon as revolution decree, which is related to nationalization of Libyan bank, had issued in

1970, Libyan shares of the bank' capital became 51%, while Italian shares became 49%. (Alarbah,1985).

According to the budget of the year 2000, the capital of the bank was (23,000,000,000 LD), while its total assets were (2,015,790,019,053 LD). At the same year the profits value was (2,920,327,694 LD), while total debt was (104,190,508,355 LD).

Priority of the bank was focused to do all banking businesses both inside and outside Libya in different fields. Some of the important services provided by the bank are:

- Accepting current and savings accounts and accepting term deposits.
- Issue of documentary appropriations and accepting foreign documents for cashing.
- Issuing local and foreign letters of guarantees.
- Distributing mortgage and social loans and granting credit facilities.
- Contributing in financing investment and real estate projects.
- Renting safes.

The main headquarter office of the bank is located in Tripoli, specifically in the center of the city. The bank is consisted of a range of branches, including two main branches in Benghazi and Sabha, in addition to other 42 branches distributed on the majority of Libyan cities.

In order to keep pace with technologic, economic and market developments, the bank continuously promote the development of conscious human resources capabilities in the areas of scientifically and technically, so that they can keep pace with technological and technical development through continuous training inside and outside Libya. The bank developed its financial capability as it was provided with devices and modern and innovative facilities in order to networking all branches together and to supply branches with infrastructures in a good desirable professional level.

It is worth noting that Umma Bank was merged with Jumhouria Bank in unified entity that currently operating under the name "Jumhouria Bank".

National Commercial Bank

National Commercial Bank was established as a result of the process of merging between Orouba Bank (which was operating under the name of Arab Bank) and Istiklal Bank (which was operating under the name of Napoli Bank, established during Italian occupation in 1912). Oroba and Istiklal banks were merged together as wholly state-owned joint stock company named National Commercial Bank according to the provisions of article No.4 of the Law No.153 (1970), provided that National Commercial Bank shall undermine the commercial transactions of Oroba and Istiklal banks and replace them in their rights and obligations. The capital of National commercial Bank was (35,000,000 LD) in 1996.

In order to facilitate providing banking services to all citizens all over Libya, operating branches of National Commercial Bank have wide spreaded to become (47) branches, in addition to (5) banking agencies. In order to increase the efficiency of the bank employees, the bank participated in the courses and workshops sponsored by banking training center of Central Bank of Libya. National Commercial Bank had also provided opportunities for its employees to participate in courses outside Libya as specialized actions of the training programs conducted by Union of Arab Banks, in addition to direct training in bank branches.

Wahda Bank

Wahda Bank was established in 1970 as a Libyan joint stock company shortly after the great revolution of Al-fateh (1969), for the purpose of upgrading banking services provided inside Libya. Effectively, it has contributed in rebuilding the country through granting loans of all kinds to citizens and general agencies and institutions.

At the time of opening the bank, its bank's capital was (3,600,000 LD). At the end of 1998, the bank's capital and the cash reserve became (23,000,000 LD), as a result of the continuous success of the investments of the banks and the increasing of number of citizens and national and foreign agencies and companies dealing with the bank.

In order to increase its banking services for citizens, Wahda Bank established and distributed (66) branches all over Libya. Continuing its policy towards the efficiency of its human resources, the bank chance training for a number of its employees through attending to the international and Arab local and foreign courses in order to raise the standers of their performance and enable them to keep pace with the progress

in banking area, so that the bank can provide better banking services. (Annual report of Wahda Bank board 1998).

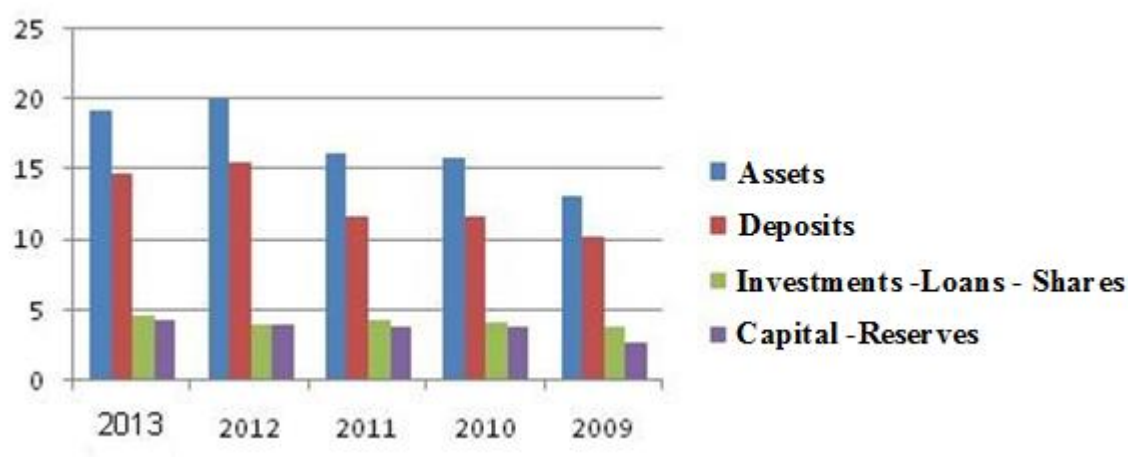
Libyan Foreign Bank

According to Law No.18 issued by 1972, Libyan Foreign Bank was established as Joint Stock Company. It was operating as an offshore bank contributing in nearly 40 financial and banking institutions around the world (Table 4-14).Its capital was 10,000,000 LD fully subscribed by Central Bank of Libya. The aforementioned law permitted the bank to conduct its various financial and banking activates outside Libya and performing some banking business in Libya. The law governing the establishment of the bank was frequently amended with a view for increasing its capital. In 2010, the extraordinary general assembly of the bank issued a decree of raising the bank's capital to 8.7 billion American dollars. (Libyan Foreign Bank, Website.).

At the end of the third quarter of the year 2013, the assets of the bank was nearly 19.2 billion dollar, its deposits was nearly 14.7 billion dollar, its investments, loans and contributions value was nearly 4.7 billion dollar, and its capital and cash reserve was nearly 4.3 billion dollar (Figure 4-4) and [Appendix: Tables (4-15) - (4-16)] that show the amount of assets and liabilities of the bank during the period from 2007 till the fourth quarter of 2018.

There is no doubt that these banks and other banks play a prominent role in driving national economy and subsequent development which has an impact on the quality of life which is sought to be achieved through sustainable development strategies. One of the most important banks of these banks is Libyan Development Bank which is directly associated with development projects which has an impact on Libyan citizens whom all strategies seek to upgrade their economic, social and governmental lives in order to keep pace with the requirements of sustainable development. Data depicted in Annex (Table 4-17) shows the amount of Libyan Development Bank transactions (concerning loans granted to clients in different industrial sectors) during the period from 1995 until the end of 2015.

Figure (4-4): Showing the development of Libyan Foreign date during 2009-2013 (billion dollars).



4.3.3 Libyan banking sector after 2011 Revolution.

The time before February, 17-2011 revolution, governmental banks were to some extent dominating Libyan banking sector. The Libyan Central Bank with its efforts has contributed in restructuring banking system including diversity of ownership of banks that lead to involvement of private sector in Libyan bank's ownership and authorizing non-Libyans to have shares in Libyan Banks. Despite the pursuit to reduce public sector ownership against private sector, the majority of Libyan banks were still under governmental control till now.

The current stability of Libyan banking sector and the effective supervision and oversight policy of Libyan Central Bank has led banking sector to recover its vitality. Libyan banking sector currently subjects to a development and modernization program in both quantity and quality. The program aims to develop banks in respect to number of banks and branches, products, and provided services, in addition to dealing with non-performing loans, developing payments instruments, and adopting new standards in accounting and training.

By the end of 2014, operating banks in Libya was 16 banks, while branches and agencies comprised 520 branches and agencies, comparing to 443 branches at the end of 2008, thus 77 branches were added with a growth rate of 17.3%.

These policies had a great impact on the amount of the assets of Libyan banking sector (as depicted in Table 4-18 and Figure 4-5),which was nearly 69.5 billion dollar at the end of November 2013 (with a 4.2% growth rate) comparing to the end of 2012.

It is worth noting that this assets growth rate was 17.7% in 2012, 8.5 in 2011, and 10.1 in 2010.

As for deposits, it was nearly 57.4 billion dollar at the end of November 2013 (with 6.6 growth rate) comparing to the end of 2012. These deposits have increased with 15.3% growth rate in 2012, 5.6% growth rate in 2011, and 12.5% in 2010. (Central Bank of Libya).

Table (4-18): Showing development of consolidated budget of Libyan banks (Billion dollars)

YEAR	2009	2010	2011	2012	2013
Assets	47.47	52.28	56.71	66.73	69.53
Total deposits	39.32	44.25	46.75	53.89	57.44
Total loans	9.54	10.43	10.22	12.72	14.57
Capital	2.12	2.68	2.68	2.83	2.87

Source: Libyan central Bank, November. (Period of profits -June).

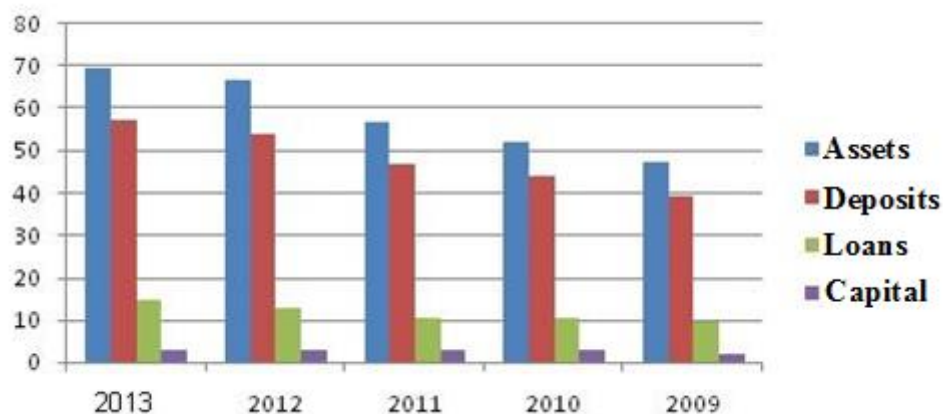
At the end of November 2013, total credit granted by Libyan central bank was nearly 14.6 billion dollar (with an increment of 14.5%) compared to the end of 2012. The growth rate of credits was 24.5% in 2012 (declined by 2%) in 2011, compared to 9.3% in 2010.

Furthermore, total capital of Libyan banking sector was nearly 14.6 billion dollar at the end of November 2013 (with a growth rate of 14.5%) compared to the year before. In 2012, the growth rate of total capital was 5.6%, compared to 0.0 % in 2011, and 26.4% in 2010.

It is worth noting that Libyan banking sector possesses a high rate of liquidity, as its liquid assets were nearly 43.1 billion dollar at the end of November 2013 (equivalent to 62%) of the total assets. The balance of Libyan banks in Libyan Central Bank is nearly 41.6 billion dollar (equivalent to 60%) of the total assets. These numbers indicate that the contribution of banking sector in financing economic activity is still limited, the state that could be rendered to the non-expansion in granting facilities and loans for different economic sectors. Despite high rates of growth achieved by Libyan banking sector, its contribution in gross domestic product (GDP) still not satisfied. In addition to the previous causes, there are also other causes led to slow progress in implementing plans of operating economic and financial institutions, such as

disorders resulting from deterioration of political conditions and subsequent cease of activities related to non-stability and security.

Figure (4-5): Showing the development of Libyan banking sector (billion dollars).



Source: Libyan Audit Bureau Report.

According to the report issued by United Nations in 2017, Libyan Central Bank played a prominent role represented by its participation in Libyan economic dialogue chaired by Libyan Prime Minister, together with presidential council and a number of economic and financial institutions in order to approve and implement 2017 budget through financing provided to different ministries. This demonstrates the bank engagement, not only in financing processes, but also in making and implementing general policies. It also played an important role in maintaining balance in exchange rate of US \$ against LD. (A report submitted in April 2017 by Secretary-General of the United Nations to Security Council).

4.3.4 Islamic banking in Libya.

Historically speaking, Libyan banking system has newly Islamic banking thoughts, as Jumhouria Bank is one of the first banks to begin practicing Islamic financing and investment banking formulas under the title "alternative banking products", the official name approved by Libyan Central Bank. According to Publication No.9 issued in 2009 in respect to "alternative banking products", operating commercial banks are permitted to grant Islamic financing and banking services. The publication

also defined alternative banking products as financing and investment tools and formulas consistent with Islamic Law, determined in the following formulas:

- Financing based on Murabaha
- Financing based on speculation
- Financing based on participation
- Addressed the availability to use other formulas in the future, such as (tenancy, tooling and Salam on condition that these formulas would be professionally examined and legally contracted.

Accordingly, Jumhouria Bank began to practice Islamic banking business based on Islamic formulas through "Murabaha" in purchasing of some goods. Other operating banks have also followed Jumhouria Bank in activating Islamic banking services, such as "Murabaha" in purchase (for example: National Commercial Bank).

In order to go forward to succeed, there should be several fundamentals to be considered, one of the most essential factor is banking sector trends and susceptibility, which would have an effective role in facilitating the process of transforming Libyan traditional banking into Islamic form. In respect to banking sector, Libyan authorities issued in 2012 a decree to gradually transform banking system to become a fully Islamic banking system at the end. Atypical regulations were established to implement Islamic law on operating banks in Libya, forcing national and foreign banks to comply with Islamic rules and guidelines in performing banking business.

Legislations related to Islamic banking business in Libya.

In terms of legislations, laws and banking, according to the provisions of Paragraph No. (6) Of Article No.55 of Law No.1 issued in 2005, entities and companies working in banking and financial services shall subject to the supervision of the Libyan Central Bank. Also, Article No.1 of Law No.2 issued in 2015,concerning money-laundering combat identified financial establishments subjecting to the provisions of the law, that they are any " bank, financial company, financial market, money-exchange companies, financial or monetary intermediary, or any other establishments authorized licensed to do its business by Central Bank".(Money-laundering Combat Law No.2 had been issued in 2005, at the same date of issuing Banking Law in 2005, where they published in the fourth edition of legislation booklet issued in 2005.).

AS the provisions of Article No.56 of Banking Law were general in meaning, which include all banking businesses authorized by Libyan Central Bank, but the provisions of money-laundering combat determined specifically some kinds of financial institutions authorized to perform financial businesses - including, but not limited. Legislative of the law expressly stipulated in Paragraph No.6, Article No.55 (currency-exchange companies and financial services) indicates that there is a possibility of providing Islamic financial services and considering Islamic financial institutions as central bank umbrella covered and oversight by Libyan Central Bank to perform banking business.

Thus, we can say that currently applicable Banking Law allows providing Islamic financial services as an authorized activity of money business. It is worth noting that Law No.1 issued in 2005 is characterized by super flexibility and fidelity that allow "non-usurious banks" to be easily established and accommodated, so that they can perform all businesses and investments according to the provisions of Islamic Laws. (Berion, 2008)

Orientation toward Islamic banking is one the most important developments of the 17 February revolution post era, in order to provide Islamic banking products and services and requirements of laws, regulations and legislation when considering advantage of other practical experiences of transformation from general traditional to Islamic banking, in a way that assure success of this experience, taking into account the specificity of Libyan local society.

Accordingly, many political and financial decrees were issued for Islamization of banking system in Libya, either by national transitional council – the actual governor after the revolution raising-, Executive office - during and after the revolution- , elected general national congress, and then the interim government, executive power of the state, where:

- 1) National transitional council called in 2011 to implement Islamic Laws, and to repeal any law inconsistent with Islamic Laws, indicating that Libya seeks to establish Islamic banking system, and mentioning that social and housing loans policies would be exempted from bank interests, and that usury would be banned.
- 2) General National Congress in Libya decreed in 2013 that usurious bank's interest on transactions between citizens and legal entities, represented by state

institutions, would be legally banned, also, this Article No.1 of the aforementioned law stipulated that "Libyan commercial banks shall be banned from transactions based on interests with citizens, and that any interests resulted from loans granted in the past shall be dropped", where Article No.2 of the law stipulated that "specialized commissions shall be mandated to work on establishing legislation and detailed plans to transform the whole banking system from a system based on interests into free Islamic banking system", and finally, Article No.3 of the law stipulated that "1st. of January 2015 would be a deadline for implementing law of banning financial interests on transactions between banks and legal entities in Libyan banks.

In consistent with previous political decrees, Libyan Central Banks, issued rules, regulations, procedures and documents required to perform Islamic banking business. It also established benchmarks of incorporation of Islamic banks, and gave help to existing banks to fully or partially transform into Islamic banks. In April 2013, Central Bank declared that it would begin accepting requests of Islamic Banks Corporation or transformation of traditional banks into Islamic banks. At the beginning of 2014, Central Bank declared that it would begin granting preliminary approvals on requests of corporation of banks operating in accordance with Islamic Laws.

Consequently, political decrees and banking notifications related to Islamization of banking system were issued, in accordance to transform traditional banking system into Islamic system, such that:

- 1) Libyan Central Bank Governor Decree No.3 in 2012 concerning consistence of advisory committee of Islamic banking affairs, defining the functions of the advisory committee and mandating it to create environment in which traditional banks can be transformed into Islamic banks. Accordingly, Law No 46 of 2012 was issued, amending Banks Law No.1 of 2005, that later on approved by the National Transactional Council.
- 2) Implementing, organization of the framework of the Islamic banking project activities in different levels by Advisory Committee of Islamic Banking Affairs. An action plan was also prepared through an accurate road map, including procedures required For giving permission of performing Islamic banking business in Libya, including the following:

- a- Establishing an Islamic bank.
 - b- Full transformation into Islamic banking.
 - c- Partial and gradual transformation into Islamic banking. (CBL, 2012).
- 3) Publication of Jumhouria bank No.1 in 2013 concerning the development and evaluation of Islamic banking business, including several components related to the mechanism of evaluation and development through:
- a- Activating Islamic banking sections in branches and agencies. (Jumhouria Bank Publication, 2013).
 - b- Developing products and launching new banking products.
 - c- Ensuring the dissemination of knowledge of Islamic economy and Islamic banking industry.(Jumhouria Bank,2013)
- 4) General Assembly of Jumhouria Bank approved, in its ordinary meeting, (April, 11 -2013) the full transformation of the bank into an Islamic bank.
- 5) Jumhouria bank opened Islamic branches in different Libyan banks as an effective initiative of transformation, including:
- a- Derna Islamic banking branch.
 - b- Tumzin Islamic banking branch.
 - c- Zintan Islamic banking branch. (Jumhouria Bank website).

Islamic Banking System Localization Requirements.

There are many factors playing different roles and participating in the continuous process of Islamic banking system localization in Libya. The first and prior one is the banking sector preparation, where the second, is the excellent preparation of leaders and executive officers of members working in banks, making sure that they are personally persuaded of this transformation process, and qualifying national elements working in different banks to work in Islamic banks. Clients dealing with banks and public opinion were also to be prepared to accept the transformation process by focusing on media, conferences and symposiums in order to introduce the transformation process and its strategies, in addition to marketing process of services and products of these banks.

These aims could be achieved through:

- 1- Reviewing all financial, economic and banking systems, so that they can accommodate transformation process.
- 2- Establishing central administration at Central Bank of Libya to monitor and supervise transformation process in addition to supervising the establishment of Islamic banks and frontals.
- 3- Constituting a shari'ah supervisory committee to supervise transformation process in collaboration with related entities.
- 4- Establishing departments and centers to teach Islamic economics and banking in all universities and high institutes. (Abo Humaira, 2010).
- 5- Benefiting from and taking advantage of the support provided by infrastructure institutions supporting Islamic banking industry, especially accounting and auditing board of Islamic financial institutions (Bahrain), Islamic banks general council (Bahrain) and other institutions focusing on this industry.
- 6- Benefiting from and taking advantage of the Kuwaiti Central Bank experience in establishing guidelines of fully transforming traditional banks into Islamic banks, especially the experiences of Kuwaiti Real Estate Bank and Industrial Development Bank in Jordan.
- 7- Benefiting from and taking advantage of the experience of Islamic international Arab Bank through giving permission to traditional banks operating in Libya to establish independent Islamic banks.
- 8- Pursuant to the principle of reciprocity, with respect to the two new licenses issued by Central Bank of Libya, of licensing the establishment of two new foreign banks, with 49% proportion, can be taken advantage of establishment of new Islamic banks. (CLB, website. www.cbsl.gov.ly).
- 9- The possibility of transforming traditional banks into financially independent Islamic banks that temporarily meet the needs of Libyan society, through benefiting from the experience of establishing an Independent Islamic branch by Qatari National Bank, which is considered as one of the most appropriate practical experience compatible with the reality of current Libyan banks, and is considered to be the starting core of independent Islamic banks in the future.¹
- 10- Benefiting from the ownership of a share of Wahda Bank by Arab Bank Group, to hold a some sort of cooperation in transforming the experiences of incorporating

¹ "Statue of Islamic branch of Qatari National Bank (Special Annex)". <http://www.qnb.com.qa/alislami>.

Islamic international Arab Bank and Arab Sudanese Bank into Libya by transforming Arab Bank into Islamic bank by way of transforming its traditional branches into Islamic branches, and giving permission for establishing an independent administration concerned only with Islamic banking.

4.4 Libyan Banking System and Sustainable Development.

4.4.1 Sustainable development in Libya- an overview.

The concept of sustainable development in Libya evolved from the general theoretical frame of Human Development which has been globally-respected since the last decade of the 20th century. Consequently, the main purpose of sustainable development for Libya is to create an environment enabling people to enjoy long and healthy lives, as well as a better standard of living which guarantees a life in freedom and dignity while participating in the development processes directed towards exploiting resources owned by Libya, especially by keeping in mind that Libya has the 55th rank amongst 58 countries with respect to the Resource Governance Index (RGI)² in 2013. In this context, the experts on human development in general, and in the United Nations Development Program (UNDP) in particular, set a number of benchmarks mentioned in the Human Development Report (1995), which address the development of humans and humanity; the most important of which include:

- 1- Leading a long and healthy life (life expectancy).
- 2- Acquisition of knowledge (years of schooling).
- 3- Having access to the resources needed for a decent standard of living.
- 4- A high Gross Domestic Product (GDP) which represents a decent standard of living.
- 5- An index of women's involvement in the social and the economic life. (Humanity Development Report, (1998).
- 6- By considering the policies before 2011, that adopted openness to the Western world, as well as the flow of companies and foreign investments since 2003, however, they failed to cause any noticeable changes – due to bad governance of resources - regarding equation of "power, wealth and corruption". On the contrary, they exacerbated the already dire living conditions. . (Humanity Development Report, (1998)).

² RGI: This index encompasses oil, gas and mineral resources governance.

Nevertheless, as knowing the fact that over 148 billion LD were expended on several development plans during the period (1973 -2010) as illustrated in Table (4-19) which had not realized their full potentials to enable the Libyan citizen to see the real development on the ground, one can realize an urgent need for actual development projects away from oil and gas revenues.

7- In order to summarize the actual progress in the level of human development relaying on the Human Development Index (HDI) issued by the (UNDP) from 1999 to 2005, and other indices, such as :life expectancy index; educational attainment index; and real Gross Domestic Product index (GDP) (in purchasing power parity dollars) .(**Humanity Development Report ,(1998)**) , and by reviewing the Human Development Report issued by the (UNDP) covering the period 1999 to 2005, it is found that Libya has achieved a some sort of concrete progress in the development field of

Table (4-19): Illustrating the approved developmental plans in Libya and the budgets for each.

(Years: 1973 - 2010)

Plan	Budget (Million LD)
1975 – 1973	2,430
1980 – 1976	7,410
1985 – 1981	12,608
1990 – 1986	7,605
1995 – 1991	5,584
2000 – 1996	4,467
2005 – 2001	15,922
2010 – 2006	92,783
Total	148,809

(As illustrated in Table 4-20);where the HDI has increased from 0.75 in 1999 to 0.79 in 2005, the issue that has classified Libya - according to the Global Human Development Report (HDR) - amongst the countries with high achievements in the Human development field. This improvement is parallel with the noticed progress in the previously mentioned indicators; where the improvement in provided health

services; declining in the illiteracy rates; and better efforts for development in the educational arena.

Table (4-20): Illustrating the development of Human Development Index (HDI) in Libya.

(1999 – 2005)

YEAR	1999	2001	2002	2003	2004	2005
Human Development Index (HDI)	0.75	0.77	0.77	0.78	0.79	0.79
Life Expectancy Index (LEI)	0.75	0.75	70.5	0.79	0.79	0.81
Educational Attainment Index (EAI)	0.82	0.83	80.0	0.84	0.87	0.86
Gross Domestic Product Index (GDP)	0.70	0.72	77.3	0.72	0.72	0.72

Source: Global Human Development Reports 1999-2005 (UNDP Publications).

In continuation with the exerted efforts to attain better indicators, Libya has set up a special locally specified program framed with determined goals and targets, which is known as “The Third Millennium Goals and Targets”. At the same time, Libya has collaborated with the United Nations through UNDP to establish what is known as Country Libyan Program (CLP) for sustainable development achievement by 2015; the two programs share the same target appointed towards sustainable development.

The United Nations program has encompassed the following three phases:

The First Country Program (1998-2000):

Where the challenges facing Libya and causing a somewhat delaying to achieve the sustainable development on time as pursuant to the United Nations strategy for reducing the global poverty rates by 2015 as follow:

- 1- Human resources development and capacity building.
- 2- Natural and environmental resources governance.
- 3- Economic diversification and participating development.

The Second Country Program (2003-2005):

This program was articulated on three main central conceptual issues which were considered as requirements for sustainable development, capacity building and the public sector reform in Libya. That was represented by the following:

- Raising public awareness about the importance of human development as an input for national plans.
- Raising the national awareness and the national support towards the global program towards human development in the whole world.
- Developing national resources management in order to achieve development, and providing stable and sustainable governance environment.
- Developing the level and efficiency of public services

The Third Country Program (2006-2009):

Which requested the completion of the following?

- Prioritizing the achievement of the goals of the United Nations Program for the Eradication of Poverty, taking into account economic and social challenges, including the achievement of the economic diversification.
- Increasing attention to human resources to achieve sustainable human development and increase cognitive growth.
- Supporting development to achieve better economic performance and upgrade services (UNDP, 2005).

The goals and objectives of the third millennium are as follows:

- Eradicating poverty by reducing the number of population whose income is less than one USD per day by mid of 2015.
- Inclusive primary education for all, by ensuring that by 2015, children of both sexes nationwide will be able to complete the primary education courses.
- Gender equality and non-discrimination on basis of sex, by eliminating discrimination in primary and secondary education and all educational levels by the end of 2015.
- Reducing the number of child mortality by reducing the under-five mortality rate by two-thirds during the period from 1990 to 2015.
- Improving the health of pregnant ladies by reducing the mortality rate during and after pregnancy by 75% by the end of 2015.
- Combating HIV/AIDS, malaria and other diseases by 2015.

- Ensuring environmental sustainability by seeking to reduce the number of those who have no access to clean drinking water on an ongoing basis to 50% by 2015, and seeking to improve the living conditions of slum dwellers.
- Developing global partnership for development by incorporating the principles of sustainable development into the State's environmental policies and programs. (UNDP, 2005).

Developing commercial and financial systems to achieve more economic openness and cooperation with the private sector to exploit the benefits of new technology, especially the information and communication technology. (UNDP, 2003).

By tracking a number of social, economic and political indicators, it was possible to discern the extent of development in human development levels in Libya and their progress in achieving the millennium's goals and objectives.

These indicators are represented by:

- Social indicators (inclusive education -health- gender equality and non-discrimination).
- Economic indicators (income-expenditure-consumption-declining unemployment).
- Political indicators (women's empowerment and political participation).

First: Social Indicators.

1) Educational Status

As a result of the interest in developing the educational process in Libya in the context of attention to human development, this was reflected favorably up on the overall rate of access to education, as the number of students increased significantly by 8.6% of the total population in 1980-1981, totaling up to 37 % of the population in 2002-2003 studying at different stages of education. (Al-Zar'ani (2011). Illiteracy rate also was reduced to 14% according to the 2001 statistics although it exceeded 61% in 1973(UNDP, 2003) compared to other Arab countries such as Egypt, Tunisia, Morocco and Iraq. (Unified Arab Economic, 2002).

Access to education rates increased at all educational levels (primary: 91.5% in 2003), (preparatory: 77.4% in 2003), (secondary: 49.7% in 2003). This is due to the qualitative development represented in the increased opportunity for females in urban and rural areas, a matter which increased female access to education rates during the

period from 1973 to 2003. This in turn has narrowed the gender gap (Table 4-21). By comparing the percentage of primary and secondary school entrants of both sexes, estimated at 96%, it seemed to be close to the average in Middle Eastern and North African countries which is estimated at 97 %.(UNDP, 2005).

Concerning higher education, access to education increased from 3.8% in 1973 to be 29.6% in 2003.As for university education and its equivalent level, the rate of female access to education increased from about 1% in 1973 to 29.6% in 2002. These developments led to substantial convergence to the 50\50 level of male and female access to education rates.

Accommodating those of school age and obliging them to education in order to be able to read and write. The literate at the age of five and above has reached (80%), males in the same age group (97%), females (94%), men and women (15%). This ratio even exceeded some of the registered ratios compared to some Arab countries. (UNDP, 2005). Convergence in the access to education rates between the two sexes in urban and rural areas has reached 71% among males, compared to 68.3% among females. In some stages, this has increased to become in favor of females, a matter which indicates the elimination of the principle of gender discrimination in receiving educational services, (Human Development Report (1999) and even exceeded some of the registered ratios compared to some Arab countries. (Amer, 2013)

**Table (21): Showing access to education rates compared to the Libyan population
(According to 1973-1995-2002 census).**

Educational Level & Age	1973			1995			2002		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
Primary (6-11)	84.1	63.3	73.7	89.4	89.0	89.2	97.4	86.2	91.5
Preparatory (12-14)	23.4	11.7	17.9	64.2	68.1	66.1	78.2	67.6	77.4
Secondary (15-17)	10.0	5.0	7.6	43.4	46.4	44.9	52.3	47.1	49.7
University (18-24)	6.5	0.9	3.8	14.5	13.8	14.2	31.1	28.1	29.6
Total (6-24)	31	20.2	25.7	62.8	54.3	53.6	64.7	59.5	62.05

Sources: A. Human Development Report 1999, General Authority for Information and Documentation, p.122

B. Economic and Social Survey 2002 - 2003, General Authority for Information and Documentation, p. 103

2) Health status

Although the neonatal mortality rate was reduced to 24.4 deaths per 1000 births until 2005 (Where it was 105 deaths per 1000 births in 1970), this is higher than the 1996 statistics that the mortality rate was only 7 deaths per 1000 births. (Statistical Yearbook (1998) This means that the neonatal mortality rate increased by 17.4 deaths per 1000 births, and the neonatal mortality rate increased from 13 deaths in 2003 to 18 deaths per 1000 births in 2004. That increase is a serious indicator, particularly when we realize that the third millennium's goal is to reduce mortality and neonatal mortality rates by two-thirds by 2015. Despite the seriousness of this indicator, but compared to the rest of the developing countries (wherein deaths reached 89 per 1000 births), an average of 48 deaths in the Arab countries, and 56 deaths in the world in 2002, Libya is one of the countries that have made tangible progress in this direction.(UDP,2004) .

As for under-five mortality rates, it is not very different as the neonatal mortality rate increased to 30 deaths per 1000 children in 2005. (Report on Health Policy, 2005).

Concerning reproductive health, the goal was to reduce the maternal mortality rate to 72% during period from 1990 to 2015, but remained steady during the statistics of 1985, 1990, 2000, 2003 and 2004 at 77 deaths per 100000 births, which is a higher rate compared to different Arab countries. (Human Development Report 2005)

Concerning births under medical supervision, they record 92.5% in 1999 and reached 100% in 2002. This is a significant development in the maternal reproductive health compared to some Arab countries. (Arab Human Development Report 2004).

Highlighting the programs concerning contagious diseases combating, and by considering the Development Report 1999, Libya is one of the leading countries that have made significant progress in covering vaccines against this diseases. On the other hand, the incidence of malaria was reduced from 57 in 1996 to only 12 in 2005. Meanwhile, other diseases have recorded an increase such as the incidence of HIV/AIDS, from 157 in 1996 to 422 in 2005, while tuberculosis reached 515 cases in 1996 that rose to 860 in 2005. (**Statistical** Report of the Health Sector, 2005).

With respect to primary health care, Libya achieved higher rates of immunization where reports indicated that the proportion of children immunized against tuberculosis reached 99.8%, the DPT 96.6% and polio 96.5 %.(UNDP, 2004).

With regard to access to clean drinking water, waste disposal and sanitation, Libya has achieved progress in this field (72% of the total population for 2002) and the

sanitation indicator (97% of the total population for 2002).(Human Development Report 2005).

Gender equality and non-discrimination

According to the 2006 reports, the rate of women's participation in work reached 31.6% (Compared to participation rates in the economic activity did not exceed 4% in 1964, and 12% by the mid-1970s, and about 20% at the beginning of the millennium in 2001).(Demographic Indicators, 2006).

At the level of women's education, illiteracy rates declined to 27% according to 1995 census, then declined to 21.76% in 2003 (Compared to the women's illiteracy rate 90.9% in 1964).(<http://www.ndp.org.eg>).

Second: Economic Indicators:

The following table (4-22) shows the development of the average per capita income as measured by his\her share of the GNP during the period from 1970-2000. A compound annual increase of 4.8% incurred in average per capita income, accompanied by a population increase of 4.6% in the same period. The average per capita income rose by LD 656 in 1970 to LD 3318 in 1980, while the period from 1981-1987 witnessed a decline and a ceaseless gap in the per capita income due to low oil prices in the international markets and then rose during the period from 1988 to 2000 to reach LD 3247 in 2000.(**Al-Farsi,2004**).

That gap reflects the extent to which sustainable development failed to be sustained by relying only on one resource (oil), as the average real economic growth rate decreased by 12.7% during the first half of the 1980s and by 4.2% during the second half. Yet, economic indicator witnessed recovery in the early 1990s, when it achieved progressive growth since 1981, except for 1985 when it reached 5.6 %.(**Scientific Research, 1998**).

Table (22): Showing the average per capita income as measured by his\her share of the GNP during the period from 1970-2000.

Year	GNP in current Prices (million dinar)	Population (in million)	Average per capita (in LD)	Per capita income Growth rate
1970	1288.3	1963.0	656.3	-
1975	3674.3	2595.5	1415.6	26.0
1980	10553.8	3180.8	3318.0	33.0
1985	7852.1	4252.0	2170.4	1.3
1990	8246.9	4799.0	1822.5	2.2
1995	10672.3	4799.0	2224.0	6.4
2000	1720.2	5426.8	3247.0	22.2

Source: Economic and Social indicators 1962-2000, p.32

At the expenditure and consumption indicator levels:

- The average expenditure on purchase of goods and services spent by the individual on the family in current prices increased from LD 74.8 per month in 1992 to LD 102.8 per month (compared with the 2003), i.e. 37.6%.
- The relative importance of food expenditure decreased from 40.3% to 38.8% between 1992 and 2003. (<http://unstats.un.org>).
- According to the Human Development Report (1999) of Libya, the number of modern houses increased by about 13 times. This indicates that the qualitative development of housing, the elimination of improvised houses which accounted for about 45% of the total number of residential buildings. Generally, spending on housing comes at the forefront, accounting for 21.4% of the total income.
- Average expenditure on education and culture increased to LD 170 per person per day, compared to LD 87 during 1992. (Libyan Journal of Information, 2005).

Unemployment Indicator

The number of those who joined the labor force in Libya increased from 16% in 1970 to 34% in 1998 and then to 43% in 2005. The following table (4-23) illustrated the time period data from 1995 to 2001, which indicates that the total number of jobseekers increased from 26408 in 1995 to 115475 in 2001. This refers to the rising unemployment (from 1.4% in 1995 to 7.7% in 2001). This percentage increased to (17.2%) by the end of 2013 as shown in Table (4-24) which in turn increased to (19 %) by the end of 2016 as indicated in figure (4-6), despite efforts exerted to reduce it. (Libyan Economy, (2002).

Table (4-23): Showing the size of Libyan labor force and registered job seekers and their ratio to the total labor force.

Year	Labor Force	Jobseekers	Job-Oriented	Jobless	Unemployment Ratio (%)
1995	917589	26408	13636	12772	1.4
1996	1054000	47994	26825	22143	2.1
1997	1092100	47106	32509	14597	1.3
1998	1006856	54527	23428	31099	3.1
1999	1045566	95153	38500	56653	5.4
2000	1079768	85537	20256	65281	6.0
2001	1110002	115475	29593	85882	7.7

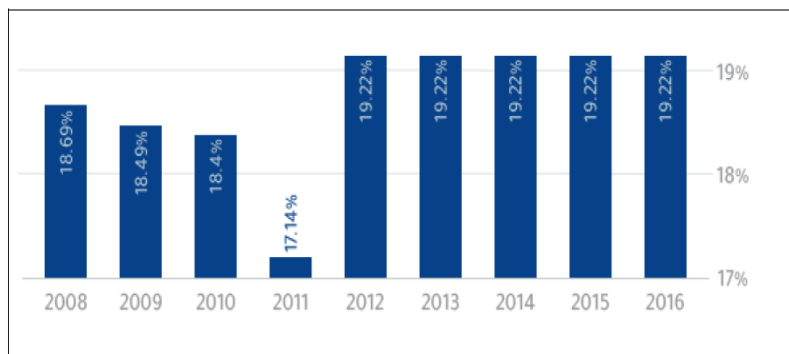
Source: Statistical Yearbook 2002, General Authority for Information and Documentation, p.26.

Table (4-24): Showing the size of the Libyan labor force and the unemployment rate compared to the number of population by the end of 2013

Statement	Males	Females	Total
Libyan Population	3.087.8	2.914.0	6.001.8
Working Age Population	2.009	1.905	3.914
Activity Rate	64.5	39.2	52.2
Labor Force	1.297	747	2.043
Number of Employed	1.109	579	1.688
Ratio of employed to Total Population	55.2	30.4	43.1
Unemployed	187.9	167.4	355.3
Unemployment Rate	14.5	22.4	17.4

Source: Bureau of Statistics and Census-Report 2013

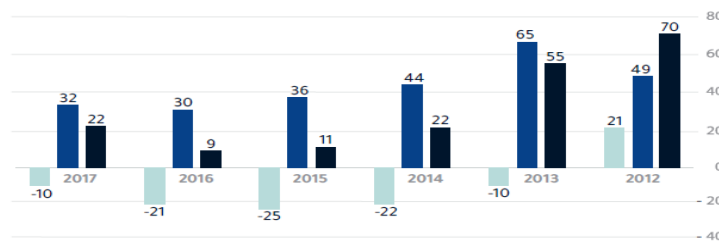
Figure (4-6): Showing comparison of unemployment rates from 2008 and 2016



Source: <http://tradfingeconomics.com/Libyalunemployment-rate>

An in depth investigation of the Libyan economic status can conclude that there are many challenges facing the development process. Dependence on "oil and gas exportation and private sector production sharing" as absolutely as the main GDP source come compared to other activities (AnnexTable 4-25) in front of this challenges, since the retune of the two sources can adequately balance financing the main and urgent needs of people, crude materials for industries, fuel, and basic salaries of the government officials and employees without any chances or opportunities for development. Thus the economic circle considered to be a closed circle on those three issues i.e. oil and gas exportation, private sector sharing and importing urgent needs and basic salaries (Fig. 4-7).(Miechel, E. P,2007).

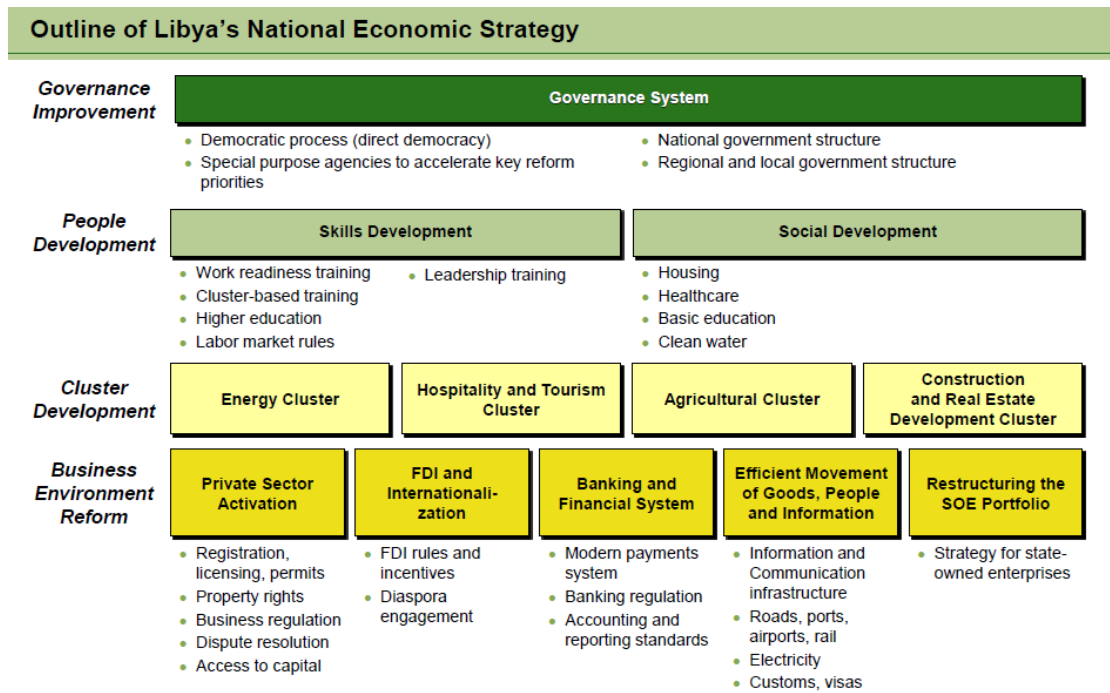
Fig. (4-7): Showing Libyan government income and outcome during period of 2012 – 2017 according to Libyan Audit Bureau reports.



Source: Libyan Audit Bureau Report.

Starting by the year 2004, the national economic strategy has been developed, as indicated in figure (4-8), the later included governance improvement, people development, cluster development and business environment reforms. The four armed strategy as a whole seemed to be coincident with and reflecting the main three objectives of the sustainable development (economic, environmental and sociological developments). More deep investigation of this strategy will revealed that overlapped interests such as energy, agricultural, environmental, housing, educational, management, national governance, political, regional and local government structuring, human development and healthcare efforts are the axial targets of the objectivity that in turn will lead to sustainable development verification, the issue that reflect the consideration of the sustainability concept in Libya – even if it was under different nomenclatures – since the last two decades.

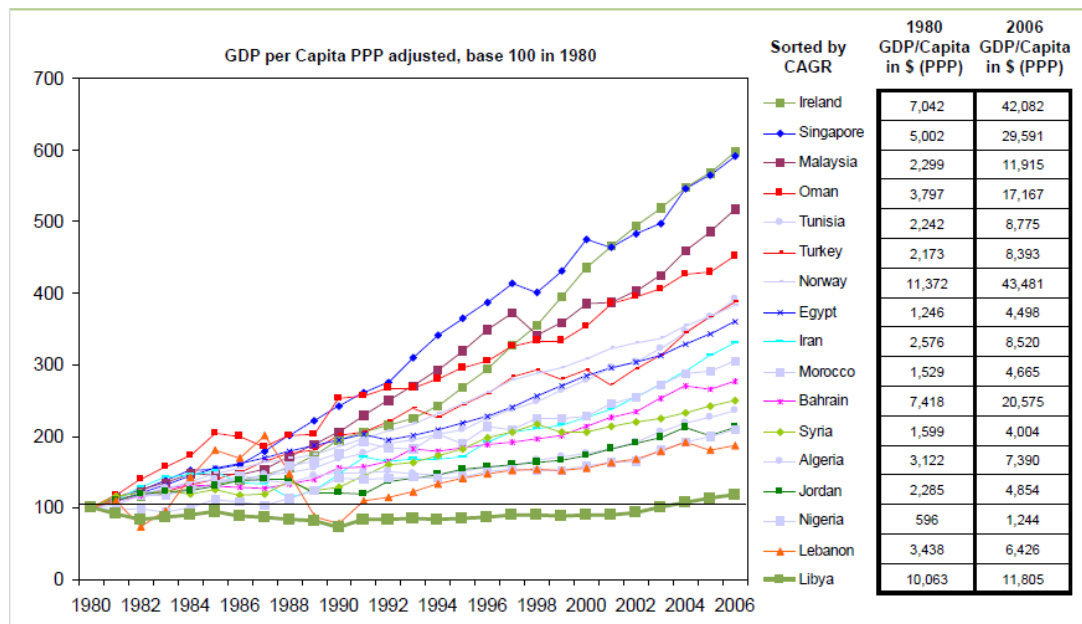
Figure (4-8): Showing the outline of Libya`s national economic strategy reforms initiatives.



Source: Miehcel, E. P.; National economic strategy, Moment for Action, Monitor company group, 2007.

In spite of the exerted efforts either before or during 2000s, and taking into consideration that Libya as one of the oil and gas exporting countries, and compared to other Arabic oil and gas exporting countries, the prosperity (expressed in GDP per capita) still lower than the demanded level during the period of 1980-2006 as shown in (Figure 4-9). This UN favored status address a big question towards the need for "true jump" to optimize the sustainability structured strategies.

Figure (4-9): Showing Libya's Prosperity compared to other countries.

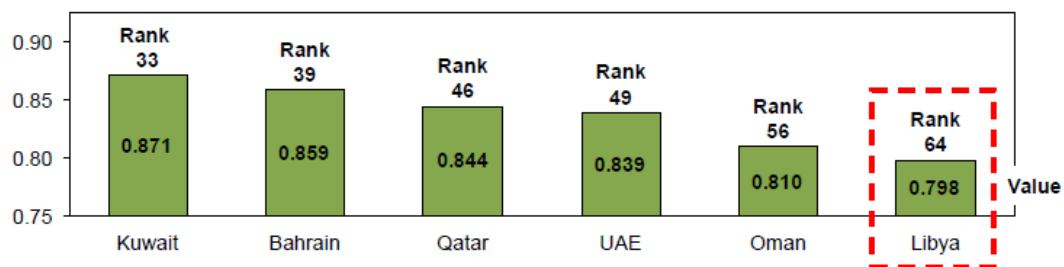


PPP: Purchasing Power parity.

Source; Michel, E. P.; National economic strategy, Moment for Action, Monitor company group, 2007.

This lowered prosperity could be ranked (according to UNDP Human Development Reports, 2000 and 2006) as to put Libyan people wellbeing at the latest rank compared to other oil and gas exporting countries as shown in Figure (4-10), On the other hand, this ranking pattern was verified through the Human development index (HDI) that is based on measures on expectancy, education and GDP (Figure 4-11).

Figure (4-10): Showing Libyan people wellbeing rank compared to other oil and gas exporting countries.



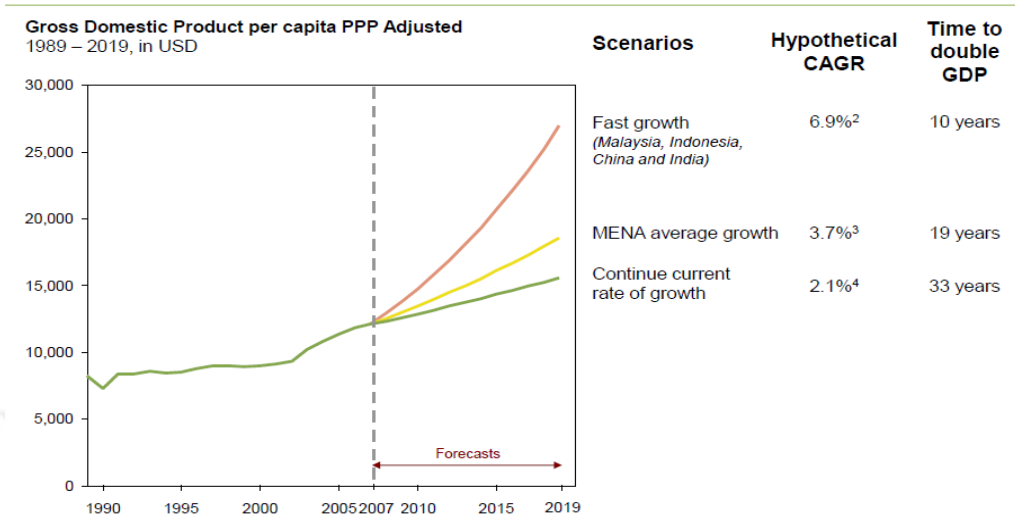
** Human development index (HDI) is based on measures on expectancy, education and GDP.

Source: UNDP (Human Development Report, 2000 and 2006) Monitor analysis.

In spite of the above drawbacks either in wellbeing ranks or the human development index patterns, there is some studies addressing the possibility and expectancy of modifying this negative figures by the end of 2019 (For example, International

Monetary Fund results based on International financial statistics and world economic outlook database analysis) as shown in figure(4-11).

Figure (4-11): Showing the expected Libya`s economic growth that could improve Libyan human standard of living by 2019.



Source: International Monetary Fund (International financial statistics and world economic outlook database), Monitor analysis.

This expectancy figure may led to encouragement of the exerted efforts to achieve sustainable development goals and consequently merging to green finance practices with assurance of good return benefits either for banks or/and Libyan people community in al orientations; i.e economical, sociological and environmental.

The present and recent economic status indicate that the post 2011 revolution conflict counterparts stress on the Libyan economy and the well-being of the population. In addition, production of oil, the main source of income in Libya, has been steadily declined over the last five years to reach around 0.38 million barrel per day (bpd) in 2016, which is less than one quarter of pre-revolution levels. As a result, the Libyan economy shrank by an estimated 2.5% in 2016, with estimated real GDP falling to less than half of its pre-revolution level. (Miechel, 2007) From an economic standpoint of view, WB outlook assumes that a new functioning government is endorsed this year. In this context, the dynamics in the hydrocarbon sector triggered during the last quarter of 2016 is expected to continue, translating into higher production of oil, which is projected to progressively reach 1 million bpd by the end of 2017, still representing only two thirds of potential. On this basis, GDP is projected to increase by 40%. Although improving, the twin deficits will remain, as revenues from oil will not be sufficient to cover high budget expenditures and

consumption-driven imports. This should keep the budget deficit at about 18.8% of GDP and the current account deficit at 15.3% of GDP in 2017. (World Bank article, 2017) This in turn pointed to less progress in the sustainability development efforts. But, as a result of the agreement of the Organization of the Petroleum Exporting Countries of cutting oil production to 32.5 million bpd starting by January 2017, oil prices rose slightly and fluctuating between 52 and 60 \$ from August to November 2017. Exceptionally, Libya increased oil production substantially toward the end of 2016 and throughout 2017, recording growth in real GDP for 2017 and 2018. Although this growth has actually been economically implanted, the economic outlook remains highly uncertain and dependent on fluctuating oil prices and progress in achieving stability. (AEO, 2018). This fluctuation in turn pointed to a hesitated pattern in the sustainability development efforts till now.

As mentioned previously, where the primary objective of sustainable development, from the standpoint of Libya, is to raise the human development indicator to create a climate and an environment to enable people to enjoy a long and healthy life and a better living standard, by comparing this objective, in all its aspects, to the efforts made as part of the UNDP or the Millennium Development Goal 3 (MDG 3), and the results of these efforts can be summed up as follows:

First: Positive Indicators

In terms of quality of life, Libya has been able to achieve significant progress in the increasing life expectancy. As for the educational process, it has witnessed development reflected in the index of educational achievement through the increasing rates of access to different educational levels for the age group of 6 years and above, the higher numbers of students at different educational levels and the lower gender gap, at near equality between male and females access rates. At the urban and rural levels; With respect to the health status, there has been a clear decline in the neonatal and under-five mortality rates; a decrease in the infant mortality gap between urban and rural areas; high rate of life expectancy since birth; tangible improvement in reproductive health care; decline in the incidence of certain contagious diseases such as malaria. Concerning equal rights and duties of women and men, there has been a remarkable development in the rate of females' access to education and its different levels, compared with males. As for the economic status, there has been development reflected in the GDP indicator of the human development level. There has been a

marked increase in the woman's participation in labor work field over the last three decades of development. There has been some improvement in the pattern of expenditure and consumption. Food continues to account for a high proportion of expenditure. There has been an improvement in directing spending towards education, recreation, transport and communications. Housing occupies an essential place in post-food spending. This can be inferred from the following table (Table 4-26), which includes indicators that carry these advantages upon which the future must be built through the activation of the sustainable development mechanisms.

Second: Indicators of Failures

With regard to incurable diseases combating, there is an increase in the prevalence of HIV/AIDS; high incidence of tuberculosis and wasting syndrome. There is still a relative shortfall in the indicator of eliminating gender discrimination; clear rise in unemployment rates, despite the development efforts exerted by Libya. This is referred to by UN report published in 2017 which indicated that nearly 1.3 million people in Libya are in need for basic humanitarian assistance represented by housing (about 303000 people are homeless), food (about 17% of these homeless people suffer from food shortages), while 60% are on the verge of total food loss, health (about 17% of hospitals are closed or facing drop in general resources) and education (as many areas do not have access to education service).(UN,2018).

The objective assessment comes to indicate that more efforts should be exerted to achieve sustainable development in all its senses and move it to what is known as green development. These efforts will not stop at the level of the State's planning, implementation and follow-up, but should go beyond it to banks that must play active roles to achieve these goals. Additionally, Libyan institutions must adopt several concepts such as the concept of community responsibility, green banks and the concept of green financing, which is a comprehensive umbrella for all aspects of sustainable development in terms of financing. This has already begun with the Green Finance Workshop held in Tunis during December 24th-29th, 2018. It is a step forward for Libya to adopt the green financing programs in collaboration with international organizations, topped by the UN.

Table (4-26): Showing Libyan economic benchmarks and predictions during year 2018

Markets	Others	Reference	Previous	Scope	Frequency
Currency	1.34	06-2018	1.36	0.3:1.44	Daily
GDP	Others	Reference	Previous	Scope	Frequency
GDP Annual Growth Rate	55%	12-2017	-8.1	-62.1:104	Annually
GDP	USD 29.15 billion	2015-12	41.14	20.48:87.14	Annually
GDP Fixed Prices	20388SOU ND million	2014-12	39016	20388:78166	Annually
Per Capita GDP	USD 5449	2015-12	6087	4509:11934	Annually
Per Capita GDP (ppp)	USD 13321	12-2015	14880	11023:29174	Annually
Work	Others	Reference	Previous	Scope	Frequency
Unemployment Rate	19.22%	12-2016	19.22	17.14:20.81	Annually
Population	6.29 million	12-2016	6.23	1.43:6.29	Annually
Competitiveness Index	3.48 points	12-2015	3.73	3.48:3.89	Annually
Competitiveness Grade Level	126	12-2015	108	88:126	Annually
Corruption Index	17 points	2017-12	14	14:27	Annually
Corruption Grade Level	171	12-2017	170	105:172	Annually
Accessible Doing Business	185	12-2017	188	185:188	Annually
Steel Production	30000 tons	2018-04	29.91	0:130	Monthly
Taxes	Others	Reference	Previous	Scope	Frequency
Corporate Taxes Rate	20%	12-2018	20	20:40	
Personal Income Rate	10%	12-2018	10	10:15	
Social Security Ratio	15%	12-2018	15	15:15	
Source: http://tradfingeconomics.com/Libvalunemployment-rate					

As part of Libya's preparation for climate finance (GCF Green Climate Fund Readiness Program), a capacity-building workshop for members of the Designated National Authority (DNA) by the Green Climate Fund is being organized in Tunis, from 24 to 29 December 2018. This 1st workshop, organized by the Libyan GCF

National Focal Point, in collaboration with the OSS, as a Delivery Partner of the Green Climate Fund, aims to establish a Designated National Authority (DNA) in Libya and to strengthen its institutional capacity to enable it to fulfill its role and responsibilities towards the GCF. It also aims to establish the institutional frameworks within the DNA's intervention, which essentially consists of mobilizing climate investments, and to facilitate Libya's access to the GCF's climate financial resources. (Libya-climate, 2019).

As many efforts have been made or will be made to establish and implement the foundations for sustainable development in Libya, like other strategic plans, they encounter a myriad of difficulties and challenge those developers of plans and strategies should consider.

Among the most important challenges facing development in Libya is: political, security, population, administrative, geographical and post-revolutionary challenges, which can be listed as follows:

Political and Security Challenges.

They involve intense centrality in the capital, which goes back to the historic bilateral competition between Tripoli and Benghazi. This competition has turned into an elitist and developmental competition that has not served the development plans. Plus, there is an absence of democratic system and government in the management or partisan institutions or civil society institutions that monitor and evaluate development plans and give hand in preparing them according to societal needs in different regions, and most importantly the post-revolution security turmoil. (Amor, 2015).

Population Challenges.

They involve spatial population mismatch that is evident in the concentration of the majority of population in the northern coastal strip of the Mediterranean Sea, particularly in the western region (Figure 4-12), where 61% of the population lives in the western section, 28% live in the east and only 8% live in the south, while only 3% live in the center. This distribution is mainly conditioned by services availability.

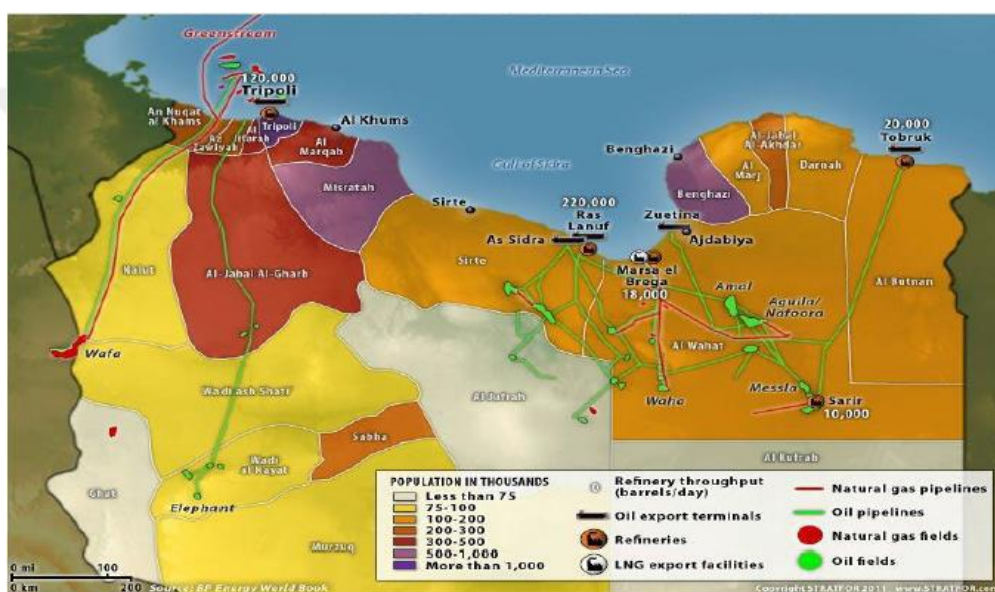
(Amor, 2015).

Locally, within each region, spatial mismatch is evident. The people of Benghazi represent 50% of the total population of the eastern region's residents and 14% of the State's total population. The people of Tripoli also constitute 50% of the population of the western section, and 31.5% of the State's total population, while the population of the city of Sabha represents half the population of the southern section, a matter

demonstrating the concentration of population in major cities wherein services are available.

Challenges also involve discrepancies in the rates of population growth during the various stages, which are directly related to development, as well as the increase in the number of those over the age of fifty in the coming period to the detriment of those at the age of fourteen, which means that the youth group qualified for the labor market will decrease, and consequently affect the development plans. (Amor, 2015).

Figure (4-12): Showing population distribution all over different regions of Libya and energy recourses.



Source: British Petroleum Publications.

http://axisoflogic.com/artman/publish/Article_64476.shtml

Administrative Challenges.

Stability in the administrative territories of regions, cities and villages represents a sort of stability of the plans included and the balance in the distribution of resources and services. In contrast, instability and change in Libya's municipal division has resulted in the magnitude of municipalities and the smallness of the population base, especially in the southern desert areas, leading to large spatial disparity in population density rates, dispersal in the provision of public services and facilities, higher costs of providing the public services and disparity in development projects.

Centrality represent a somewhat another challenge when laying out the development plans, a matter that led to the concentration of services in major cities and lack in cities that need real development, as well as disparity in the distribution of major

development projects, mainly in the major cities (Tripoli, Benghazi, Misurata, Zawia) to the detriment of middle and small cities. The criterion was not how much these cities need these projects, but the influence of some political and social elites who have contacts with the supreme leadership, the spread of administrative and financial corruption and the lack of technical element, a matter that contributed to the failure of several development projects.(Amor,2015).

Geographical Challenges.

Given the extension of the geographical area of the Libyan territories of which deserts constitute the largest part, the geographical conditions have varied, a matter that has clearly affected the development processes, especially since this variation of the terrain and climatic conditions has not been positively exploited for the sake of the development process, as well as the lack of water resources, disparity of geographical distribution of the population and the distribution of oil and gas resources.

Post-revolution Challenges.

With the outbreak of the 2011 revolution and due to the difference in political vision, which in turn was reflected on the security situation, destruction covered many oil and non-oil facilities and, this requires a plan for reconstruction and development of those facilities and services. This has led to a sort of political and security instability along with calls for division and autonomy in some areas. This was accompanied by the negative role of some tribes so many times, which clearly affected the government management and the development plans.

The exacerbation of community problems associated with the absence of justice and the state of social discontent because some areas received higher revenues from resources and development plans. This has been linked to armed movements, a matter which necessitates the rehabilitation of society to take part effectively in the development process.

4.5 Conclusion

Understanding policies of Libyan banks and their attitude towards sustainability issues requires a intensify knowledge of the history of these banks and the environment in which they have been operating.

So, the aforementioned topics of this chapter included three sections where they discuss the Libyan banking sector by reviewing its historical development, highlighting the construction that significantly affected the development areas and the

relationships between banking activities and sustainable development issues during last decades with regard to financial issues where understanding the inter relation comes from realizing the progressive policies and actual functionalized practices of banks towards sharing in sustainable development plans and policies.

By considering the historical, political, and economic context of the Libyan banking sector and its influence on sustainability platform, we can see that there was a progress in the sharing modules during the last 50 years (with varied amplitude either by increase or decrease mode). These fluctuations could be rendered mainly too many factors (affected, to a large extent, by political, economic and social ideology of the previous political regime). In addition, political pressures by the international community played an effective role in deterioration of the sustainability attitude.

Finally, uprising of the 17th of February 2011 resulted in and led to dramatic changes on banking system and banks in conjunction with the sustainability issue, since the banking law 1, 2005 was amended by Law No. 1 of 2012 and later by Law No. 46 of 2012, which include details on Islamic banking.

Chapter 5

Methodology

5.1 Introduction

The current chapter represents the methodology, which was used by the researcher in order to achieve the objectives of the study. Methodology is defined as the application of scientific perspective in studying the phenomena and accidents. In addition, it is the means by which we define the method of research and demonstrate the appropriateness of this method to study the phenomenon and collect knowledge about it (Saunders et al, 2007). Therefore, the methodology is a set of procedures and mechanisms recognized by scientists that can be used to observe, detect and investigate the acquisition of knowledge and access to facts (Kumar, 2011).

In order to achieve the study objectives, the qualitative research method was used to generate the theoretical background of this research based on the literature review, by reference to studies, books and articles related to the subject of the current study, while the utilized quantitative approach was the pre-designed questionnaire. The current chapter includes an explanation of the steps that have been followed, and the data sources which relied upon in data collection, as well as to clarify the data analysis procedures. In the end, the researcher investigated the validity and reliability of this study. Using this method, the researcher can discuss descriptive questions or questions that need clarification. Yin (2014) added that the use of this method helps to study phenomena and investigate similar events.

5.2 Research philosophy

Philosophy is a key element in any study, where it is used in determining the best design for the research (Easterby-Smith et al., 1991). There are many factors that control choosing the right philosophy of study. Easterby-Smith et al. (1991) mentioned that the objectives of the study and the methods used to achieve the objectives of the study are the basic elements that are used to determine the appropriate research philosophy.

The current research seeks to discuss two basic types of philosophy which are positivism and interpretivism (Creswell, 2008). After explaining these two kinds of

philosophies, the researcher has chosen the appropriate philosophy to conduct this study.

5.2.1 Positivism Philosophy

Saunders et al. (2007) indicated that this type of philosophy is based mainly on the facts that are collected through various data collection methods such as observation; it is also used in quantitative approaches, such as experimental studies and surveys.

This type of philosophy is interested in exploring the social realities. This kind of philosophy is used in quantitative methods and especially which are associated with the social science studies (Hatch and Cunliffe, 2006).

5.2.2 Interpretivism Philosophy

This philosophy is concerned in collecting the qualitative data by using different methods, such as interviews and case studies (Livesey, 2006; Hatch and Cunliffe, 2006). Blaikie (1993) clarified that this philosophy can also be called as the anti-positivist philosophy. Saunders et al (2003) added that this philosophy is linked to the attitudes of respondents and their thoughts and ideas.

The theory of interpretivism believes that reality is basically depends on social facts (Mark et al., 2009). The researcher admits that each research has a particular approach, and this approach depends primarily on the objectives and the nature of the research. The researcher thinks that the positivist research philosophy is suitable for this research, as the researcher will class, count and analyze the data collected without demonstrating the data reasoning and clarifying the reason behind choosing the positivism approach.

5.3 Research approach

The research methodology can be determined based on the attitudes and behaviors of the researcher. The qualitative and quantitative approaches will be discussed to choose the best approach for the current study.

5.3.1 Qualitative approach

The qualitative research approach is based mainly on the exploration. Qualitative research is built on a social phenomenon that is explored from the perspective of the participants.

Qualitative research is based on collecting the data used to explain certain phenomenon based on modern theories. Leedy and Ormrod (2001) clarified that the case study enables researchers to understand a particular case which is unclear.

5.3.2 Quantitative approach

The quantitative approach deals with numbers or anything that can be measured in a systematic way to discover a relevant phenomenon or to reveal on the relationship between two variables or more. This kind of research methods is used in answering the questions that aim to reveal the relationship between set of variables, as well as to explain and interpret the nature of this relationship in a particular phenomenon.

To be able to achieve the objectives of this research, both qualitative and quantitative methods have been used. The qualitative research method was used to generate the theoretical background of this research based on the literature review, by reference to studies, books and articles related to the subject of the current study, while the utilised quantitative approach was the pre-designed questionnaire. There were many reasons that justified the use of a questionnaire in particular in this research, which were:

- The questionnaire is used in situations that require the collection of great information from a large number of individuals, and this can able the researcher to collect the appropriate information that leads to achieve the objectives of the study with high efficiency.
- The questionnaire is considered the most effective tool in the research that needs to statistical analysis, and this applies to the current research.
- This tool is considered easy to use, flexible, and collect accurate information
- The collected data through the questionnaire will help the researcher in realizing the Role of Banking System in preserving sustainable development via green financing strategies.

5.4 Data sources

There are two sources that the researcher relies on to collect the study data, including the primary and secondary sources. The researcher relied on both sources to achieve the objectives of the study. Data from primary sources is the data that is used to answer the study questions and to achieve the objectives of the study. The data from primary sources are collected from the study population, and reliance on this source in

data collection helps to obtain accurate and useful results. The respondents from the employees of Libyan Banks will represent the primary data of this study. The data collected from primary sources helps to obtain accurate results because they depend on communication with the study population and directly relate to the subject of the study.

The data from secondary sources do not directly cover the study problem and are not relied upon to collect information related to the case study of Libyan Banks. However, the information from secondary sources can be used to confirm the results of the study to be reached. To get effective results in the current study, the researcher will rely on both primary and secondary sources in data collection. The researcher designed a questionnaire to collect primary data. The researcher also relied on books, previous studies and articles related to the current study to collect secondary data.

5.5 Population and Research Context

After selecting the research problem and hypotheses, it is necessary to define the study population. If the researcher could conduct her study on all population members, the results of the study would be closer to reality and more accurate, but the researcher may find it difficult to deal with all members of the study population for several reasons. The study population will consist from all the employees of Libyan Banks. The questionnaire will help the researcher to access to facts and important information through gathering the opinions of the employees of Libyan Banks and realizing their opinions toward the Role of Banking System in preserving sustainable development via green financing strategies. The study population consisted of all employees in the Libyan banks and these banks are four banks, namely the Central Bank of Libya, Republic Bank, Unity Bank, and the National Commercial Bank in the city of Tripoli.

5.6 The study Sample

The target sample consists of 220 employees of Libyan Banks who have a piece of worth information regarding the subject of the study. 220 and completed returned questionnaires which it use for analysis is 150. A questionnaire was designed to investigate the Role of Banking System in preserving sustainable development via green financing strategies at Libyan Banks to gather primary data. The questionnaires were then distributed to employees and some customers of Libyan Banks.

5.7 Questionnaire Design

The researcher has designed a questionnaire to collect the primary data. The researcher has adopted in designing the questionnaire on previous studies and articles related to the subject of the current study, where the researcher has depended on them to choose the right statements which suit the nature of the current research.

Therefore, the questionnaire composed from four main sections; each section included statements related to the major topic of the section. Section A contained the background information related to the participants. Section B revealed on the level of Libyan banks knowledge about the Green Finance. Section C revealed on Implementation and practicing of "Green Finance" policies. Section D revealed on Libyan government policies. Section E revealed on Banks practices concerning sustainable development financing. Section F revealed on the level of investing and implementation in Libyan Banks.

5.8 Research Hypothesis

According to the nature of the study, Research Problem, research questions and objectives. Study hypothesis could be formulated as follow:

H1: There is no significant difference in the mean score for the level of Libyan banks knowledge, implementation and practicing of "Green Finance" policies.

H2: There is a statistically significant relationship between Libyan government policies and banks practices concerning sustainable development financing during the last three decades.

H3: There is a statistically significant relationship between the level of prior knowledge about the Green Finance and the level of investing and implementation in Libyan Banks.

5.9 Presentation and analysis of data

In order to analyze the collected data, the researcher has used the Statistical Package for the Social Sciences (SPSS) program. Several tests have been used to analyze the collected data, including, and frequency distribution.

5.10 Research validity and reliability

Every scientific method requires having credibility based on its reliability and validity; these are main terms in any research. Validity defined as the ability of the research tools to measure accurately what it is designed to measure; whilst the reliability indicates the likelihood of questionnaire terms to induce consistent responses. Cronbach's alpha is used for reliability test and internal consistency of the survey items.

5.10.1 Research validity

Validity refers to the data collection tool to measure what it was made for. Heale and Twycross (2015) indicated that validity is associated primarily with the viability to repeat experiments and scientific discoveries. Validity can be defined in the scientific research as the accuracy of the research in measuring the purpose which is designer for (Golafshani, 2003), i.e. to what degree the research tool provides us with information relating to the research problem of the same study population.

The researcher ascertained the validity of the study tool to achieve the objectives of the study through presenting the initial copy of the questionnaire to a group of specialists, and based on their opinions and suggestions, the questionnaire phrases has been modified and reformulated to get the final copy to distribute it on the study sample.

5.10.2 Research Reliability

Reliability can be defined as the extent to which the tool gives comparable readings when every time the tool will be used (Garson, 2001). Ensuring the reliability of research aims mainly to emphasize that the use of the same methods and tools, which have been used by the researcher in the current study, to conduct another study, will ensure getting the same results.

To ensure the accuracy and the ability of the tool to measure the practicing of "Green Finance" policies in the current study and to compute extents questionnaire reliability was chosen correlation coefficient Cronbach' alpha values applied, the Cronbach' alpha values applied on research tool reached (0.758) this indicates to accept reliability.

5.11 Study's procedures

Aiming to achieve the objectives of the study, the researcher has followed the following procedures:

- Reviewing the literature and the previous studies correspondent to the study.
- Conducting study's tool (the questioner).
- Making sure of the reliability of the study's tool (the questioner).
- Identifying the population and the sample of the study.
- Distributing the questioner to participants and processing data.
- The researcher has submitted the questionnaire in its final script to the sample that consists of (150) employees at Libyan Banks.
- The data were processed and analyzed by computer using (SPSS) to find out the results.
- In the light of the results of the study, many recommendations have been suggested.

5.12 Chapter Summary:

This chapter of the study is concentrated on clarifying the selected research methodology. As a summary from the above-mentioned information, a mixed methodology that consists of both quantitative and qualitative approaches is the selected methodology. A survey has been chosen for the research strategy through the utilisation of the questionnaire as a technique to assemble the primary required data. The utilised sampling technique will be a probabilistic random sampling method. The survey will be administered to a specific above mentioned target group .Data would be analyzed both qualitative and quantitatively to create a better understanding for the research topic. The study continues in the next chapters with an analysis of the data and discussions of the results, in addition to submitting suggestions for future relevant studies.

Chapter 6

Analysis

6.1. Introduction

The topic of this research focuses to the role of banking sector in sustainable development enhancement via green financing prospects. Therefore, it attempts to discover the results if Libya, has a governance framework for sustainability enforcement, and to evaluate the limitations of adverse social and environmental impacts through green financing, as well as to find the interaction between the state of the current financial system and sustainable value in banking sector in Libya by examining tensions between the financial community and business actors that may provide barriers for sustainability investments., this research has a scientific interest that can contribute to incorporating social and environmental sustainability in the banking field in Libya. This chapter will give an explanation of the questionnaire outcomes obtained after collecting and analyzing the response.

Again, this chapter provides an analysis of the results of the respondents' answers in order to know the implementation and practice "Green Finance" policies in bank, as well as to find out if employees have information about the green finance.

In this study, the mixed method is considered to specifically utilize the strength points of both quantitative and qualitative approaches. The data was collected from primary and secondary sources as follows:

6.1.1. Primary Research:

A cross sectional survey was utilized to obtain results by on a sample of (150) customers and employees in the Libyan banks From returned questionnaires .Thus, the Statistical Package for the Social Sciences (SPSS) will be utilized to analyze the collected data in tabular and graphical form in order to perform an illustrative analysis.

As stated in previous chapter, the following assumptions have been made to test the hypotheses:

H1: There is no significant difference in the mean score for the level of Libyan banks knowledge, implementation and practicing of "Green Finance" policies.

H2: There is a statistically significant relationship between Libyan government policies and banks practices concerning sustainable development financing during the last three decades.

H3: There is a statistically significant relationship between the level of prior knowledge about the Green Finance and the level of investing and implementation in Libyan Banks.

In general, the green finance meet with some constrains from banks and banking systems due to their insufficient and inconsistent internal and external policies and practices governing this issue deals that in turn address somewhat tensions between financial community and business actors that currently may represent a barriers for sustainability investments. The main aim of this study is to explore if Libya has a governance framework for sustainability enforcement, and to evaluate the limitations of adverse social and environmental impacts through green financing.

Will be list all obtained results for each section respectively in the following subsections? It provides a comprehensive analysis of the role of banking system in preserving sustainable development via green financing strategies.

6.1.2. Main sections

All information collected by the survey was treated confidentially since it only used purely for academic research purposes. The questionnaire included five sections:

- Section (A): Basic and Personal Data.
- Section (B): The level of Libyan banks knowledge about the Green Finance.
- Section (C): Implementation and practicing of "Green Finance" policies.
- Section (D): Libyan government policies.
- Section (E): Banks practices concerning sustainable development financing.
- Section (F): The level of investing and implementation in Libyan Banks.

This section will show the analysis of the data gathered by the questionnaire, and then analyze utilizing the SPSS system, with a discussion to the extent that its consistence with the outcomes of former studies. The associated tests were applied.

- Frequency analysis, which demonstrations participator's demographics and dimensions.
- Descriptive analysis, which demonstrations the mean and standard deviation for each of the dimensions and their items.
- Cronbach's Alpha, which shows the reliability value of the inner questionnaire and its dimensions.

6.2 Questionnaire results

6.2.1 Demographic properties

Section (A): Basic and Personal Data

This section is focused to get insight of the experience and graduation other related information of the respondents. The study sample included (150) professors; in which the majority were from the 5- 10 Years of experience (46%; n=69), 25.3% (n=38) were 10-15 Years, 24.7% have Less than 5 Years (n=37), and 4% (n=6) of the participants who were More than 15 Years. Of the participants, 36% (n=54) were H.Institue, 26.7% have BA (n=40), and 20% (n=30) of the participants who were M.Sc. Table 1 shows the participants' demographic data.

Table 0.1: Socio-demographic characteristics of the sample (N= 150).

Variables	<i>F</i>	%
Academic Graduation:		
H.Institue	54	36.0
BA	40	26.7
M.Sc	30	20.0
Ph.D	26	17.3
Experience:		
Less than 5 Years	37	24.7
5- 10 Years	69	46.0
10-15 Years	38	25.3
More than 15 Years	6	4.0

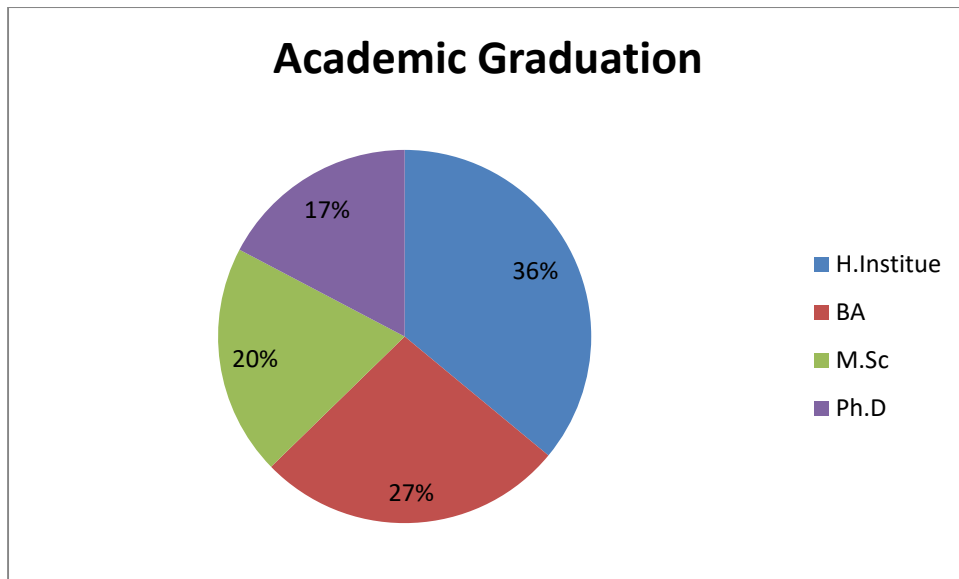


Figure 6.1: the interviewee's Academic Graduation

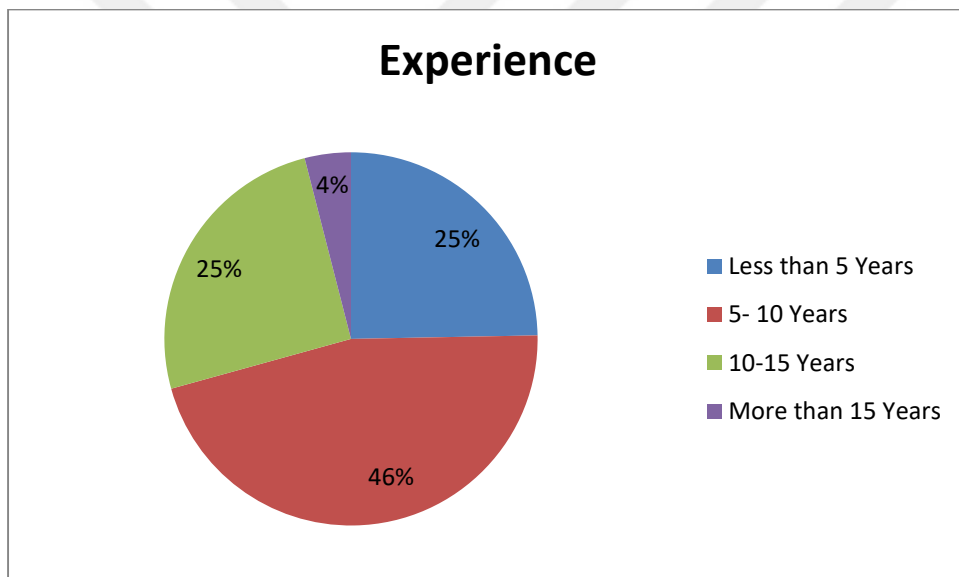


Figure 6.2: the interviewee's Experience

6.2.2. Descriptive Statistics

This section will display a readable analysis of the role of banking system in preserving sustainable development via green financing strategies. The associated part will present every single dimension of the study, with respect to mean and standard deviation values. This will be used afterward to elucidate the sample thoughtful and contentment in regard to the tests and their items.

A measure for the study questionnaire analysis clarifications is employed; this measure is divided into three stages according to the questionnaire weights, based on Sekaran (2013):

- 1 to 2.33 weak agreements
 2.34 to 3.66 good agreements
 3.67 to 5 Strong agreements

6.2.2.1 The level of Libyan banks knowledge about the Green Finance

This first dimension the level of Libyan banks knowledge about the Green Finance. Table (6.2) represents the level of Libyan banks knowledge about the Green Finance items.

Table 6.2: The level of Libyan banks knowledge about the Green Finance

No.	Items	Mean	SD
1.	Does your know what is meant by green finance.	1.17	.380
2.	I think that the green finance concept is a sounded concept in Libya.	1.03	.162
3.	Would you aware with the types of credentials devoted to the green finance in Libya?	1.04	.197
4.	I know that Libya is a member of an international institutes and organizations involved in green finance?	1.01	.115
5.	Did you think that green finance policies will be introduced in the Libyan banks activities mainstream?	1.03	.162
6.	Would you think that green finance policies will be coincident with Libyan banking culture?	1.03	.162
7.	Would you think that there is a tendency for introducing green finance policies in the financial plans of the banks all over Libya?	1.05	.225
8.	In your opinion, what about the future plans for green finance in Libyan banks?	1.03	.162
9.	Would you heard about the green finance before?	1.04	.197
10.	Would you know anything about environmental hazards in Libya?	1.03	.162
11.	Would you know anything about the stringent economic problems in Libya?	1.01	.115
12.	Would you know anything about sounded sociological problems in Libya?	1.03	.162
13.	Would you know anything about the role of your bank towards facing each one of those three problems?	1.01	.115
14.	Would you know anything about united Nations efforts towards any of the three previously mentioned topics?	1.01	.115
15.	Would you know anything concerning the role of your bank towards facing each one of those topics?	1.04	.197
16.	Did you read about green finance in any publications, newspapers or other resources?	1.04	.197
17.	Can you remember the first time you heard about?	1.01	.115

18.	Did you invited to any sessions or conferences conducted with green finance before?	1.01	.082
19.	Would you have a knowledge if Libya is a member of any international institute or organization involved in green finance?	1.03	.162
20.	Would you aware with the types of credentials devoted to the environmental issues in Libya?	1.59	.494
21.	Is your bank involved in this types of finance?	1.01	.082
22.	Is there any official announcements from the central bank of Libya or any governmental authority were directed to your bank during last years concerning green finance issues?	1.49	.502
23.	Are there any non - governmental announcements from any civil or academic organization inside or outside Libya were directed to your bank during last years concerning green finance issues?	1.02	.140
24.	Would you heard about the sustainability development, green banks, green sustainability or greening the banks before?	1.03	.162
25.	Would you think that there is a difference between the above mentioned terms, expressions and green finance?	1.03	.162
26.	Up to your knowledge, is there any projects correlated to the green finance or sustainability development in your bank?	1.03	.162
27.	Would you remember if any of your bank customers inside or outside Libya have applied for green finance during last years before?	1.03	.162
28.	Did you think that green finance policies will be introduced in the Libyan banks activities mainstream?	1.00	.000
29.	Would you think that green finance policies will be coincident with Libyan banking culture?	1.17	.380
30.	Would you think that there is a tendency for introducing green finance policies in the financial plans of the bank?	1.05	.225
31.	Would you think that green finance is an important issue for Libyan customers?	1.05	.225
32.	Up to your knowledge, is there any one of your businessman you know try to invest in projects correlated to the green finance or sustainability development in your bank?	1.17	.380
33.	Would you think that investing in green economy is an ethical and moral believe for achieving social responsibility or just a business?	1.02	.140
	Average Mean and SD	1.07	.058

Table (6.2), shows clearly the general mean of all items of the level of Libyan banks knowledge about the Green Finance is (1.07), which disclose a weak agreements. Additionally, the standard deviation values are (0.058), which is a common regard and discovers meeting on the answer of the sample. Moreover, the highest mean is (1.59), for item 20 " Would you aware with the types of credentials devoted to the

environmental issues in Libya", which reflect a weak agreement, otherwise, the least mean is (1.00) for item number 28 " Did you think that green finance policies will be introduced in the Libyan banks activities mainstream", which reflect a weak agreements. With everything taken into account, what can be concluded is that the high administration strongly agreed concerning the items was positive, hence; the individuals are strongly agreed that the level of Libyan banks knowledge about the Green Finance is good.

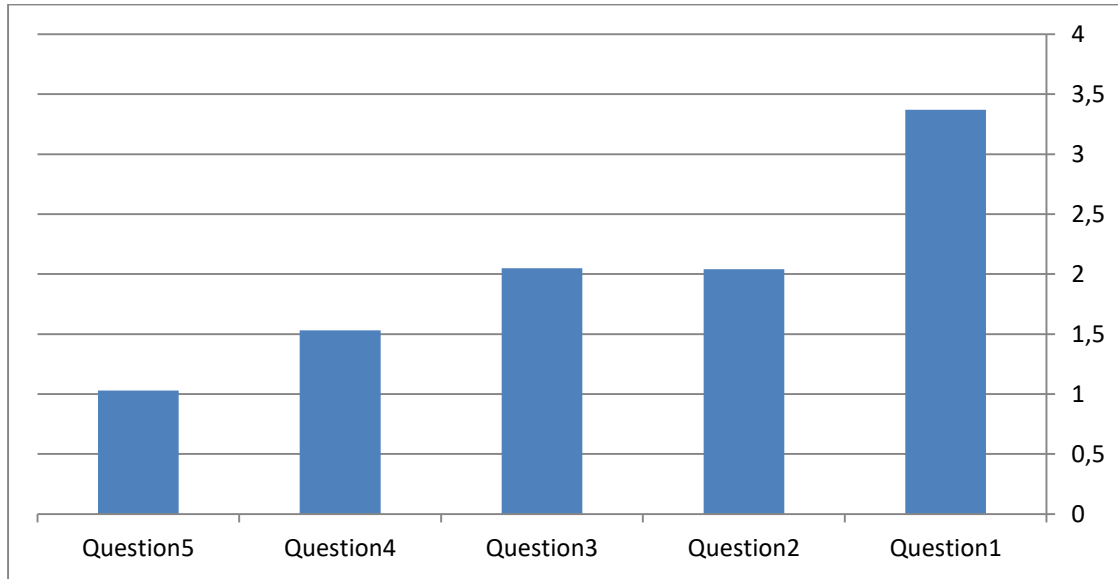


Figure 6.3: Respondents' answers to level of Libyan banks knowledge about the Green Finance

6.2.2.2 Implementation and practicing of "Green Finance" policies

This second dimension represents the implementation and practicing of "Green Finance" policies. Table (6.3) represents the implementation and practicing of "Green Finance" policies items.

Table 6.3: Implementation and practicing of "Green Finance" policies

No.	Items	Mean	SD
1.	This delay in implementation is rendered mainly to the absence of national strategic plan in Libya.	1.42	.495
2.	This delay in implementation is rendered mainly to the and crisis after 2011 revolution in Libya.	1.43	.497
3.	This delay in implementation is rendered mainly to the non-clear policies of the central bank of Libya.	1.02	.140
4.	This delay in implementation is rendered mainly to the bank policies towards financing non risky projects only.	1.43	.496

5.	In what time your bank has implemented and practiced this policies? a-Since one year. b- Since two years. c- Since three years. d- More that three years	1.17	.607
6.	Would you remember if any of your bank customers inside or outside Libya have applied and accepted for green finance during last years before?	1.43	.496
7.	According to your bank policies; does offered green finances were relayed on the nature of the business sector? (For example; environmental, economic and social)	1.02	.140
8.	According to your bank policies; does the offered green finances were relayed on the nature of the project itself?	1.60	.492
	Average Mean and SD	1.31	.202

Table (6.3), shows clearly the general mean of all items of the implementation and practicing of "Green Finance" policies is (1.31), which disclose a weak agreements. Additionally, the standard deviation values are (0.202), which is a common regard and discovers meeting on the answer of the sample. Moreover, the highest mean is (1.60), for item 8 " According to your bank policies; does the offered green finances were relayed on the nature of the project itself", which reflect a weak agreement, otherwise, the least mean is (1.02) for items number 3 and 7 " This delay in implementation is rendered mainly to the non clear policies of the central bank of Libya", and" According to your bank policies; does offered green finances were relayed on the nature of the business sector? (For example; environmental, economic and social) ", which reflect a weak agreements. With everything taken into account, what can be concluded is that the individuals are weekly agreed that there is implementation and practicing of "Green Finance" policies.

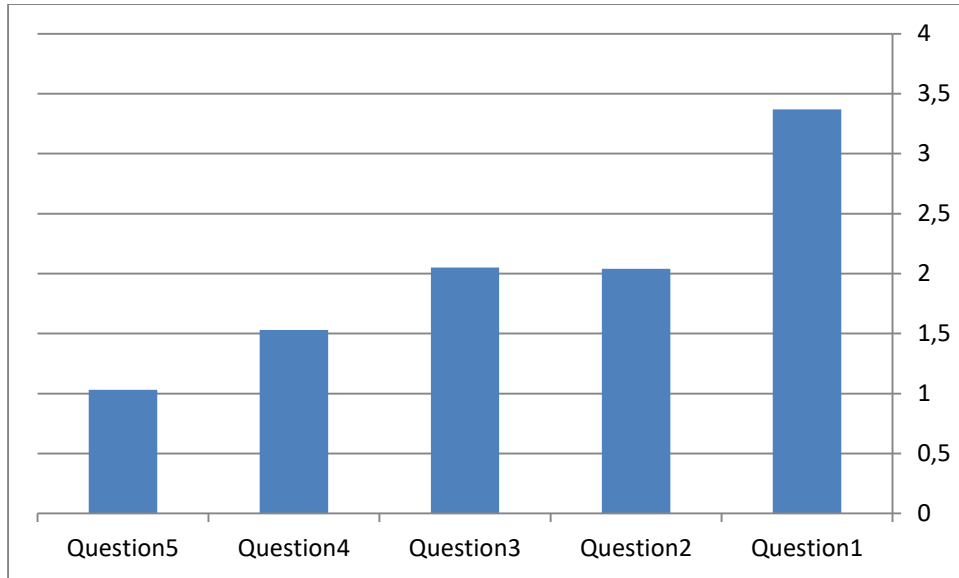


Figure 6.4: Respondents' answers to implementation and practicing of "Green Finance" policies

6.2.2.3 Libyan government policies

This third dimension represents the Libyan government policies. Table (6.4) represents the Libyan government policies items.

Table 6.4: Libyan government policies

No.	Items	Mean	SD
1.	The bank has its own plan concerning green finance implementation, but it doesn't activated yet.	1.49	.502
2.	Your bank policies are bank-driven, not a central bank-driven.	1.51	.502
3.	Occasionally, on behalf of green finance issues, your bank announced from the central bank of Libya and governmental authorities during last years?	1.01	.115
4.	Occasionally, on behalf of green finance issues, your bank announced from a non-governmental, civil, and academic organizations inside and outside Libya during last years?	1.51	.502
5.	does a higher policy to accept projects correlated to the green finance or sustainability development in your bank?	1.02	.140
6.	Does a moderate policy to accept projects correlated to the green finance or sustainability development in your bank?	1.52	.501
7.	Does a negotiable policy between bank officials and customer to accept projects correlated to the green finance or sustainability development in your bank?	1.03	.180
	Average Mean and SD	1.30	.284

Table (6.4), shows clearly the general mean of all items of the Libyan government policies is (1.30), which disclose a weak agreements. Additionally, the standard deviation values are (0.284), which is a common regard and discovers meeting on the answer of the sample. Moreover, the highest mean is (1.52), for item 6 " Does a moderate policy to accept projects correlated to the green finance or sustainability development in your bank", which reflect a weak agreement, otherwise, the least mean is (1.01) for item number 3 " Occasionally, on behalf of green finance issues, your bank announced from the central bank of Libya and governmental authorities during last years ", which reflect a weak agreements. With everything taken into account, what can be concluded is that the individuals are weekly agreed that there is Libyan government policies.

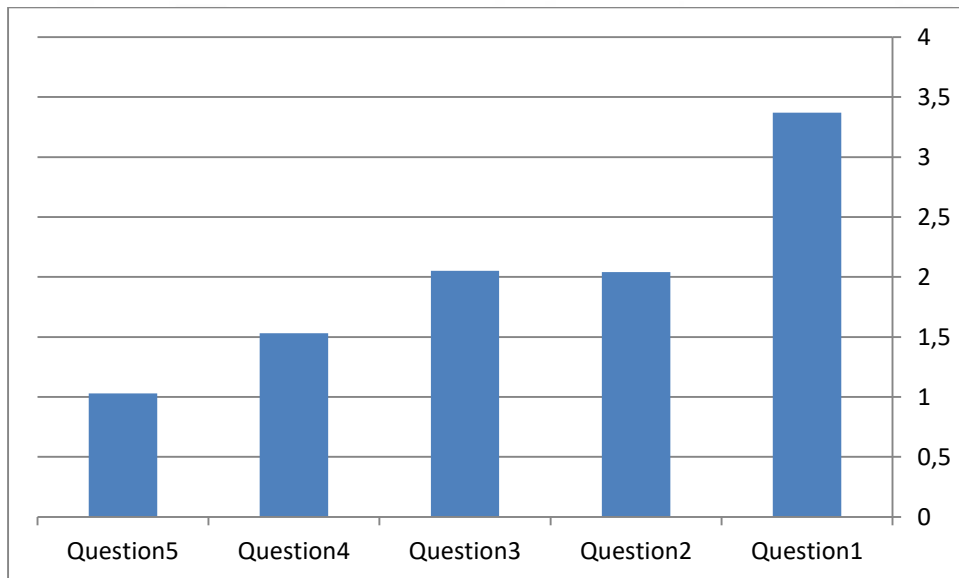


Figure 6.5: Respondents' answers to Libyan government policies

6.2.2.4 Banks practices concerning sustainable development financing

This fourth dimension represents the Banks practices concerning sustainable development financing. Table (6.5) represents the Banks practices concerning sustainable development financing items.

Table 6.5: Banks practices concerning sustainable development financing

No.	Items	Mean	SD
1.	Neither of central bank nor any banks in Libya practicing this type of finance.	1.01	.115
2.	Your bank usually invited to sessions and conferences conducted with green finance before.	1.52	.501

3.	Your bank practicing green finance in different names, terms or conditions?	1.01	.115
4.	Your bank is involved in this types of finance?	1.51	.501
5.	According to your bank policies; acceptance of the green finances are relayed on the nature of the business sector? (For example; environmental, economic and social)	1.01	.115
6.	According to your bank policies; does the acceptance of the green finances were relayed on the nature of the project itself and not on the nature of the business sector.	1.52	.501
	Average Mean and SD	1.27	.243

Table (6.5), shows clearly the general mean of all items of the Banks practices concerning sustainable development financing is (1.27), which disclose a weak agreements. Additionally, the standard deviation values are (0.243), which is a common regard and discovers meeting on the answer of the sample. Moreover, the highest mean is (1.52), for items 2 and 6 " Your bank usually invited to sessions and conferences conducted with green finance before", " According to your bank policies; does the acceptance of the green finances were relayed on the nature of the project itself and not on the nature of the business sector ", which reflect a weak agreement, otherwise, the least mean is (1.01) for items number 3 and 5 " Your bank practicing green finance in different names, terms or conditions ", and" According to your bank policies; acceptance of the green finances are relayed on the nature of the business sector? (For example; environmental, economic and social)", which reflect a weak agreements. With everything taken into account, what can be concluded is that the individuals are weekly agreed that there is Banks practices concerning sustainable development financing.

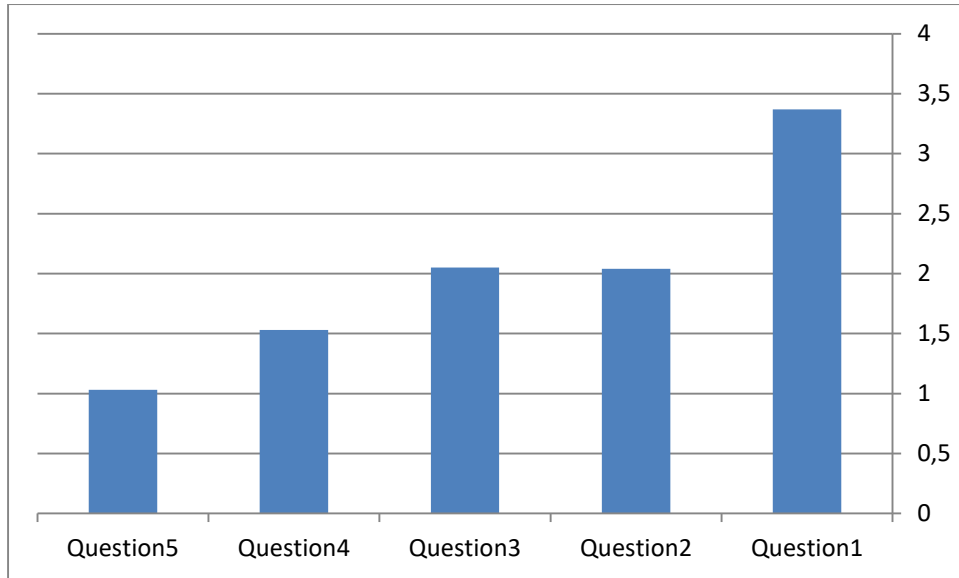


Figure 6.6: Respondents' answers to Banks practices concerning sustainable development financing

6.2.2.5 The level of investing and implementation in Libyan Banks

This fifth dimension represents the level of investing and implementation in Libyan Banks. Table (6.6) represents the level of investing and implementation in Libyan Banks items.

Table 6.6: The level of investing and implementation in Libyan Banks

No.	Items	Mean	SD
1.	In your opinion, when talking about the environmental domains financially supported by your bank, Is it: a) Low carbon emission projects? b) Low energy consuming projects? c) Agricultural organic projects? d) Water pollution treatment projects? e) Technology- supported low human resources projects?	3.37	1.120
2.	Can you rate the following sectors according to their priority for bank in financial prospect? a) Environmental sector then Economic. b) Economic sector then Environmental. c) Environmental sector then Social. d) Social sector then Economic.	2.04	1.035

3.	Can you rate the following sectors according to their priority for you if your bank when making a decision to be involved in financial prospect? a) Environmental sector then Economic. b) Economic sector then Environmental. c) Environmental sector then Social. d) Social sector then Economic.	2.05	1.025
4.	What is the most prominent project involved in ecological, economic or social welfare you intend to establish and hope to be financed via your bank?	1.53	0.501
5.	Could you negotiate your bank and take the same forward step action towards investing in green economy?	1.03	0.162
	Average Mean and SD	2.00	0.492

Table (6.6), shows clearly the general mean of all items of the level of investing and implementation in Libyan Banks is (2.00), which disclose a weak agreements. Additionally, the standard deviation values are (0.492), which is a common regard and discovers meeting on the answer of the sample. Moreover, the highest mean is (3.37), for item 1 " In your opinion, when talking about the environmental domains financially supported by your bank, Is it Water pollution treatment projects ", which reflect a strong agreement, otherwise, the least mean is (1.03) for items number 5 " Could you negotiate your bank and take the same forward step action towards investing in green economy", which reflect a weak agreements. With everything taken into account, what can be concluded is that the individuals are weekly agreed that there is level of investing and implementation in Libyan Banks.

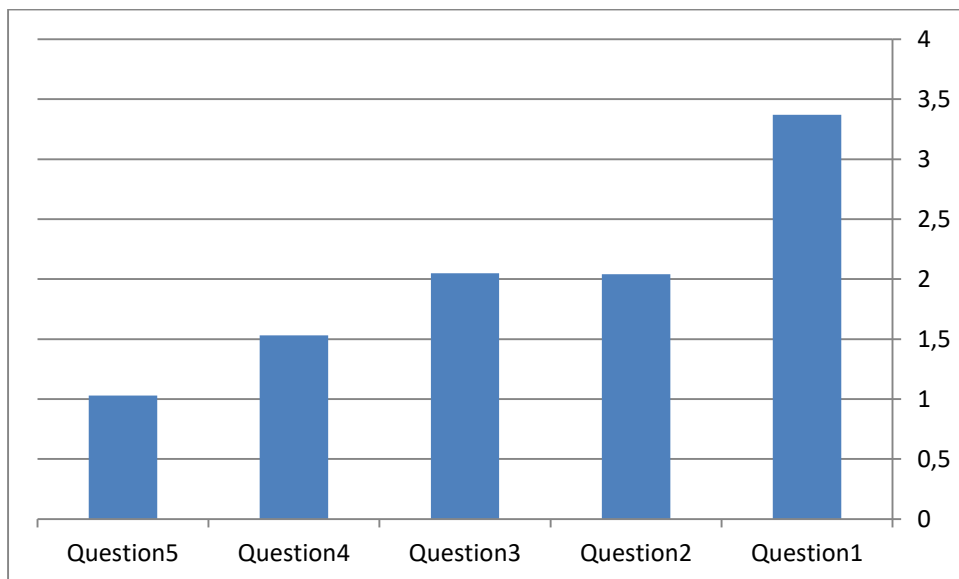


Figure 6.7: Respondents' answers to level of investing and implementation in Libyan Banks

6.2.3 Reliability

Table (6.7) displays the reliability for the whole questionnaire for the sample of professors, which was the highest value (0.851). According to Sekaran, (2013), all reliability values are exceeding the acceptable level of 0.60.

Table 6.7: the reliability for the whole questionnaire

Variables	Cronbach's Alpha
The level of Libyan banks knowledge about the Green Finance	0.563
Implementation and practicing of "Green Finance" policies.	0.425
Libyan government policies	0.851
Banks practices concerning sustainable development financing.	0.751
The level of investing and implementation in Libyan Banks.	0.495

6.3. Testing Hypotheses

6.3.1 First Hypothesis:

First Hypothesis H01: There is no significant difference in the mean score for the level of Libyan banks knowledge, implementation and practicing of "Green Finance" policies.

To test this hypothesis and to detect the difference in the mean score for the level of Libyan banks knowledge, implementation and practicing of "Green Finance" policies, the one-sample T.test was used for the difference in the mean score for the level of Libyan banks knowledge, implementation and practicing of "Green Finance" policies; the table below shows that.

Table 6.8: One- Sample T.Test results of the overall average to the level of Libyan banks knowledge, implementation and practicing of "Green Finance" policies

	No	Mean	SD	Std. Error Mean	DF	T-Value	Sig.
the level of Libyan banks	150	1.0707	.05765	.00471	149	227.455	0.000

knowledge							
implementation and practicing of "Green Finance" policies	150	1.3142	.20158	.01646	149	79.847	0.000

Table no. 6.8 shows that there is a statistically significant for the level of Libyan banks knowledge at a significant level ($\alpha \leq 0.05$), where "t" value reached (227.455) by statistically significant (0.00), and there is a statistically significant for the implementation and practicing of "Green Finance" policies at a significant level ($\alpha \leq 0.05$), where "t" value reached (79.847) by statistically significant (0.00), which indicates the differences in the mean score for the level of Libyan banks knowledge, implementation and practicing of "Green Finance" policies, so the first hypothesis were rejected.

7.3.2 Second Hypothesis:

Second Hypothesis H02: There is a statistically significant relationship between Libyan government policies and banks practices concerning sustainable development financing during the last three decades.

To test this hypothesis and to detect the relationship between the Libyan government policies and banks practices concerning sustainable development financing during the last three decades, were accomplished using the bivariate analysis, in which a parametric test such as Pearson correlation was engaged through analysis. The results of the correlation test represent in table no.(6.9)

Table 6. 9 Correlation between the Libyan government policies and banks practices concerning sustainable development financing during the last three decades

		banks practices concerning sustainable development financing
Libyan government policies	Pearson Correlation	-.959**
	Sig. (2-tailed)	.000
	N	150

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

According to the results shown in the table of the correlation test, the Libyan government policies and banks practices concerning sustainable development financing; since the correlation coefficient is equal 0.959 between the Libyan government policies and banks practices concerning sustainable development financing during the last three decades. This result agrees with the results found of studies Sarokin & Schulkin (1991), Smith (1994) and Gray & Bebbington (2001) noted that the banks and other lending financial institutions by themselves release a limited or minute hazardous toxic pollutants into the environment. However, it has been increasingly recognized that they are linked to commercial activity that harms the natural environment through their lending practices to businesses. On the other hand, study Evangelinos & Nikolaou (2009), Coulson & Monks (1999) and Weber & Banks (2012) explain that the banks develop environmental and sustainability credit risk assessment policies and procedures, and use them as a mechanism to manage credit risks resulting from environmental, social, and sustainability impacts. Furthermore, some lenders integrate environmental risk management throughout the phases of their credit risk management such as rating, costing, pricing, monitoring, and work-out (Weber, et.al., 2008).

6.3.3 Third Hypothesis:

Third Hypothesis H03: There is a statistically significant relationship between the level of prior knowledge about the Green Finance and the level of investing and implementation in Libyan Banks.

To test this hypothesis and to detect the relationship between the level of prior knowledge about the Green Finance and the level of investing and implementation in Libyan Banks, were accomplished using the bivariate analysis, in which a parametric

test such as Pearson correlation was engaged through analysis. The results of the correlation test represent in table no.(6.10)

Table 6. 2Correlation between the level of prior knowledge about the Green Finance and the level of investing and implementation in Libyan Banks

		level of investing and implementation in Libyan Banks
level of prior knowledge about the Green Finance	Pearson Correlation	-.146
	Sig. (2-tailed)	.075
	N	150
**. Correlation is significant at the 0.01 level (2-tailed).		

According to the results shown in the table of the correlation test, the level of prior knowledge about the Green Finance and the level of investing and implementation; since the correlation coefficient is equal 0.146 between the level of prior knowledge about the Green Finance and the level of investing and implementation in Libyan Banks. This result agrees with the results found of study Weber (2016) and Babiak & Trendafilova (2011) there is a causal correlation between corporate social responsibility (CSR) performance, customer satisfaction, customer loyalty, reducing the direct environmental impact from their daily operations and financial performance in the financial sector.

6.4 Factor Analysis:

Hence, KMO is used to measure the sample adequacy. It is ranging from 0 to 1.00, so the higher value of KMO is better (Hardy and Bryman, 2011) and (Field, 2013).

6.4.1 Factor Analysis for Implementation and practicing of "Green Finance" policies

Table 6. 3KMO Test Value

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.893
Bartlett's Test of Sphericity	Approx. Chi-Square	1869.147
	df	28
	Sig.	0.000

The table shows that the resulting KMO reached 0.893, which was excellent value for the justification of applying factor analysis to the dataset. The Bartlett's test of sphericity was highly significant (p-value < .001) indicating that the sample correlation matrix is not an identical matrix.

Table 6. 4Factor Loadings for Implementation and practicing of "Green Finance" policies

No.	Item	Component
1	This delay in implementation is rendered mainly to the absence of national strategic plan in Libya.	.995
2	This delay in implementation is rendered mainly to the and crisis after 2011 revolution in Libya.	.979
3	This delay in implementation is rendered mainly to the non clear policies of the central bank of Libya.	.534
4	This delay in implementation is rendered mainly to the bank policies towards financing non risky projects only.	.987

5	In what time your bank has implemented and practiced this policies? a-Since one year. b- Since two years. c- Since three years. d- More that three years	.775
6	Would you remember if any of your bank customers inside or outside Libya have applied and accepted for green finance during last years before?	.987
7	According to your bank policies; does offered green finances were relayed on the nature of the business sector? (for example; environmental, economic and social)	.401
8	According to your bank policies; does the offered green finances were relayed on the nature of the project itself?	.968

Scree Plot

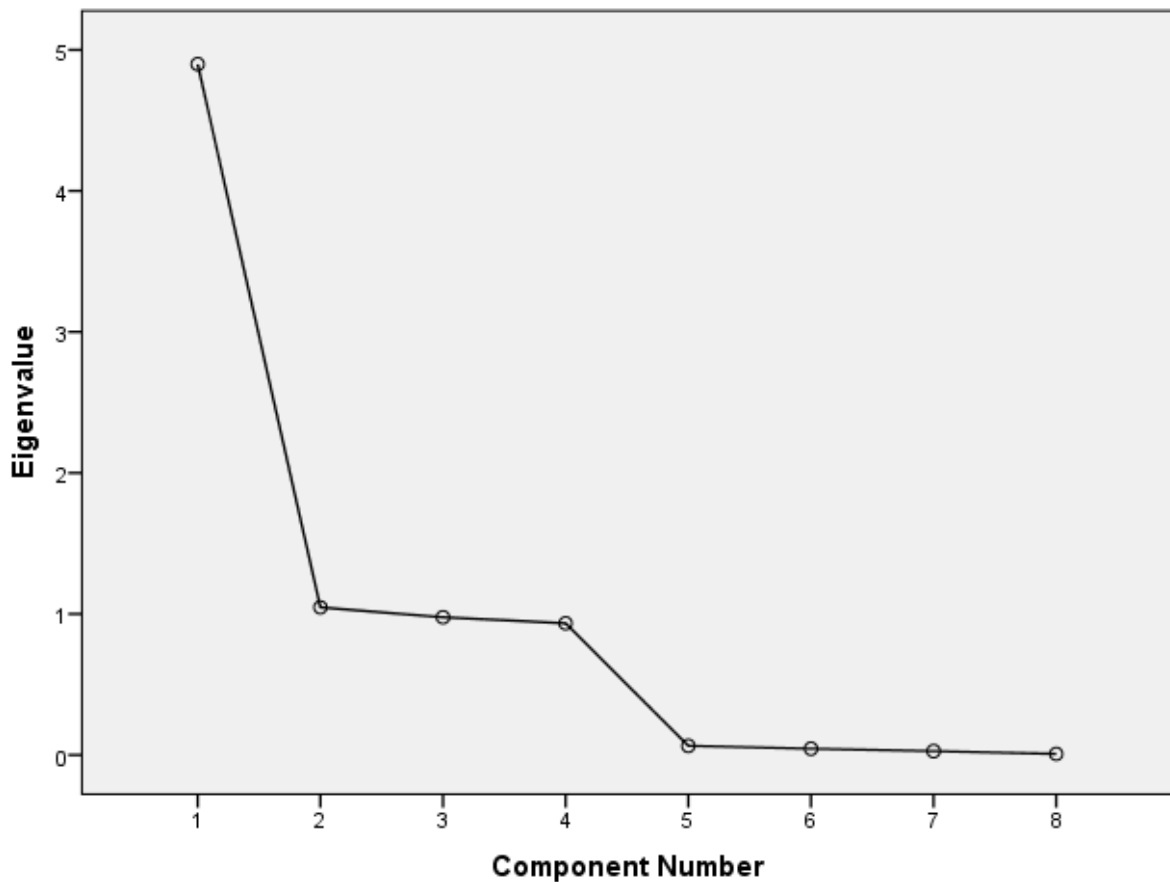


Figure 6.8: Scree plot of the Components Extracted from Factor Analysis for Implementation and practicing of "Green Finance" policies

6.4.2 Factor Analysis for Libyan government policies

Table 6. 5KMO Test Value

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.811
Bartlett's Test of Sphericity	Approx. Chi-Square	1270.057
	df	21
	Sig.	.000

The table shows that the resulting KMO reached 0.811, which was excellent value for the justification of applying factor analysis to the dataset. The Bartlett’s test of sphericity was highly significant (p-value < .001) indicating that the sample correlation matrix is not an identical matrix.

Table 6. 6Factor Loadings for Libyan government policies

No.	Item	Component
1	The bank has its own plan concerning green finance implementation, but it doesn't activated yet.	.990
2	Your bank policies are bank-driven, not a central bank- driven.	.977
3	Occasionally, on behalf of green finance issues, your bank announced from the central bank of Libya and governmental authorities during last years?	.858
4	Occasionally, on behalf of green finance issues, your bank announced from a non-governmental, civil, and academic organizations inside and outside Libya during last years?	.973
5	does a higher policy to accept projects correlated to the green finance or sustainability development in your bank?	.504

6	Does a moderate policy to accept projects correlated to the green finance or sustainability development in your bank?	.959
7	Does a negotiable policy between bank officials and customer to accept projects correlated to the green finance or sustainability development in your bank?	.258

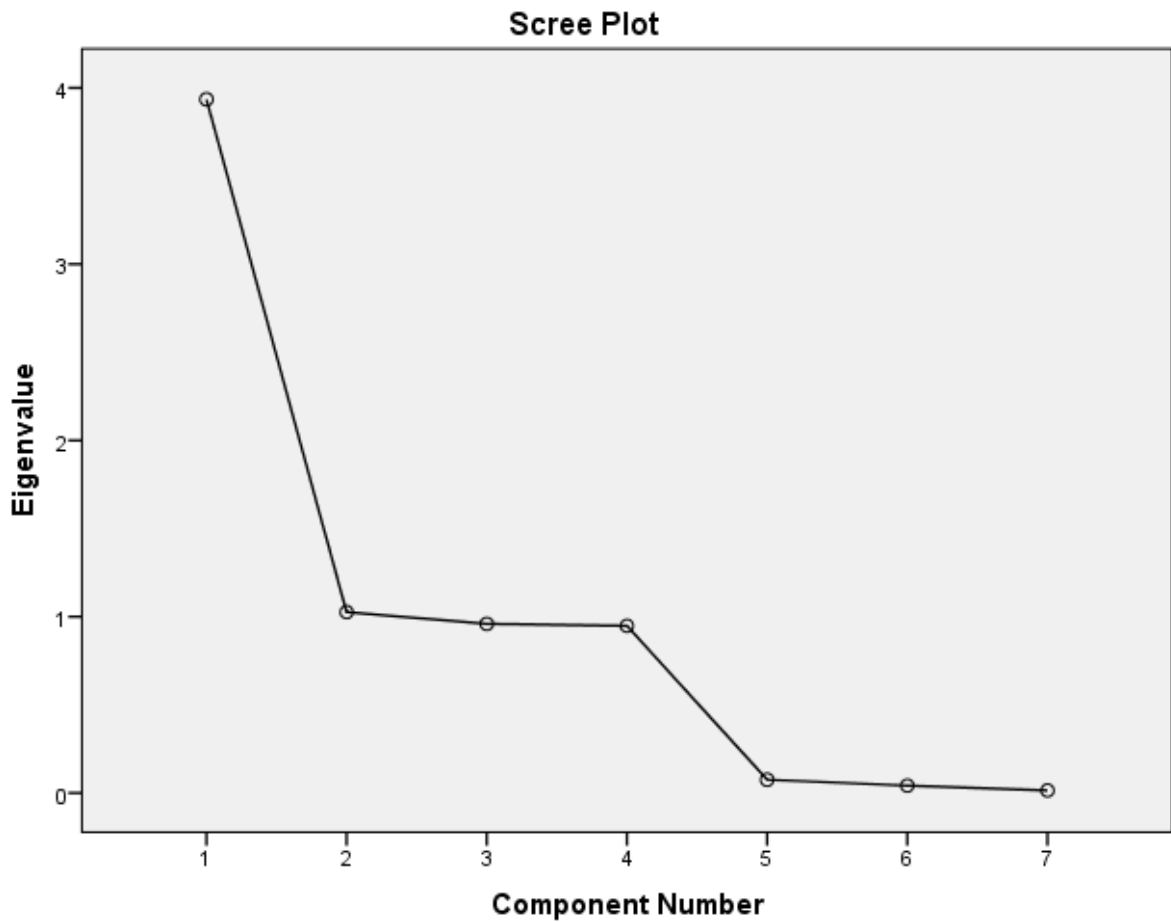


Figure 6.9: Scree plot of the Components Extracted from Factor Analysis for Libyan government policies

6.4.3 Factor Analysis for Banks practices concerning sustainable development financing

Table 6. 7KMO Test Value

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.684
Bartlett's Test of Sphericity	Approx. Chi-Square	811.013
	df	15
	Sig.	.000

The table shows that the resulting KMO reached 0.684, which was excellent value for the justification of applying factor analysis to the dataset. The Bartlett's test of sphericity was highly significant (p-value < .001) indicating that the sample correlation matrix is not an identical matrix.

Table 6. 8Factor Loadings for Banks practices concerning sustainable development financing

No.	Item	Component
1	Neither of central bank nor any banks in Libya practicing this type of finance.	.712
2	Your bank usually invited to sessions and conferences conducted with green finance before.	.980
3	Your bank practicing green finance in different names, terms or conditions?	.712
4	Your bank is involved in this types of finance?	.982
5	According to your bank policies; acceptance of the green finances are relayed on the nature of the business sector? (For example; environmental, economic and social)	.898
6	According to your bank policies; does the acceptance of the green finances were relayed on the nature of the project itself and not on the nature of the business sector.	.980

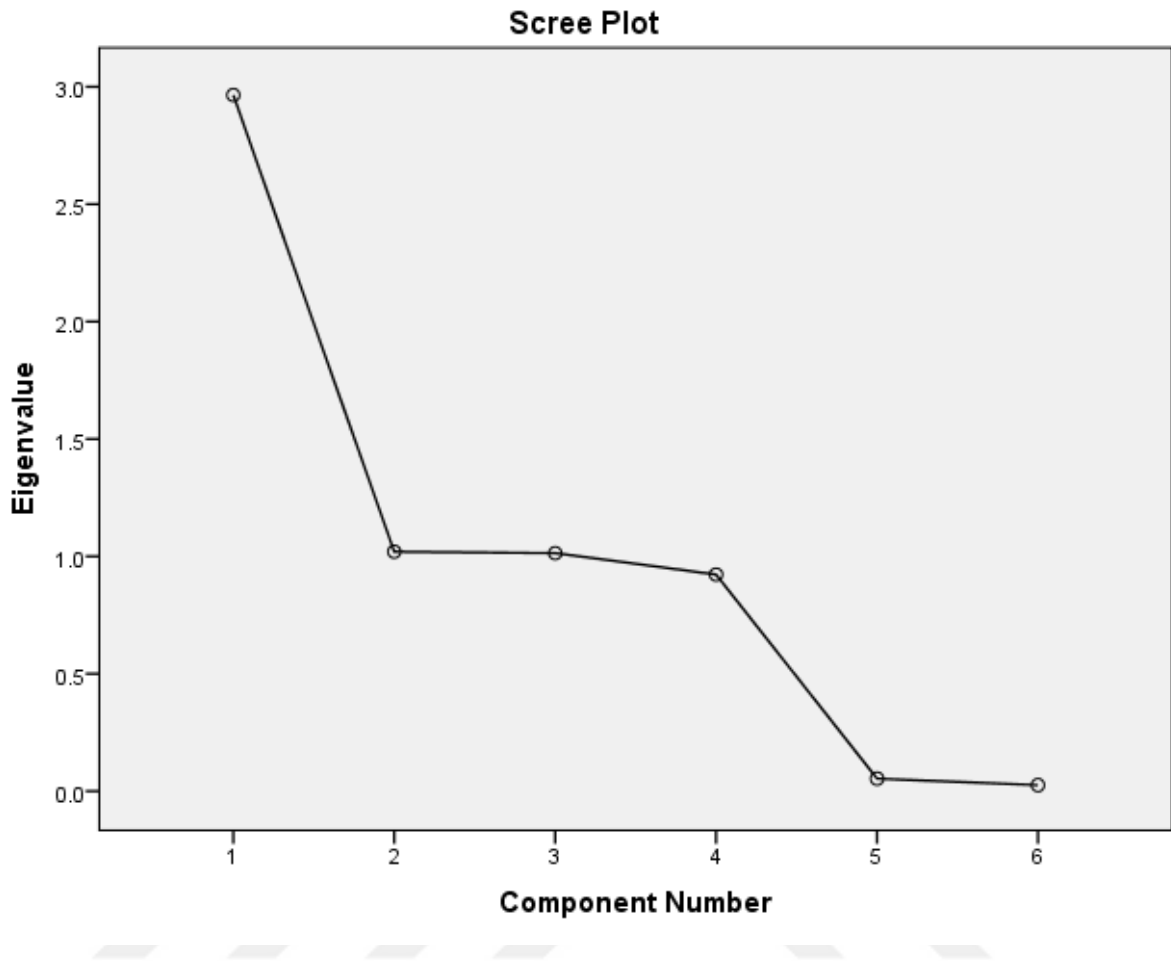


Figure 6.10: Scree plot of the Components Extracted from Factor Analysis for Banks practices concerning sustainable development financing

6.4.4 Factor Analysis for the level of investing and implementation in Libyan Banks

Table 6.9KMO Test Value

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.692
Bartlett's Test of Sphericity	Approx. Chi-Square	160.249
	df	10
	Sig.	.000

The table shows that the resulting KMO reached 0.692, which was excellent value for the justification of applying factor analysis to the dataset. The Bartlett's test of sphericity was highly significant (p-value < .001) indicating that the sample correlation matrix is not an identical matrix.

Table 6. 18 Factor Loadings for level of investing and implementation in Libyan Banks

No.	Item	Component
1	<p>In your opinion, when talking about the environmental domains financially supported by your bank, Is it:</p> <p>a) Low carbon emission projects?</p> <p>b) Low energy consuming projects?</p> <p>c) Agricultural organic projects?</p> <p>d) Water pollution treatment projects?</p> <p>e) Technology- supported low human resources projects?</p>	.862
2	<p>Can you rate the following sectors according to their priority for bank in financial prospect?</p> <p>a) Environmental sector then Economic.</p> <p>b) Economic sector then Environmental.</p> <p>c) Environmental sector then Social.</p> <p>d) Social sector then Economic.</p>	.803
3	<p>Can you rate the following sectors according to their priority for you if your bank when making a decision to be involved in financial prospect?</p> <p>a) Environmental sector then Economic.</p> <p>b) Economic sector then Environmental.</p> <p>c) Environmental sector then Social.</p> <p>d) Social sector then Economic.</p>	.825

4	What is the most prominent project involved in ecological, economic or social welfare you intend to establish and hope to be financed via your bank?	.887
5	Could you negotiate your bank and take the same forward step action towards investing in green economy?	.550

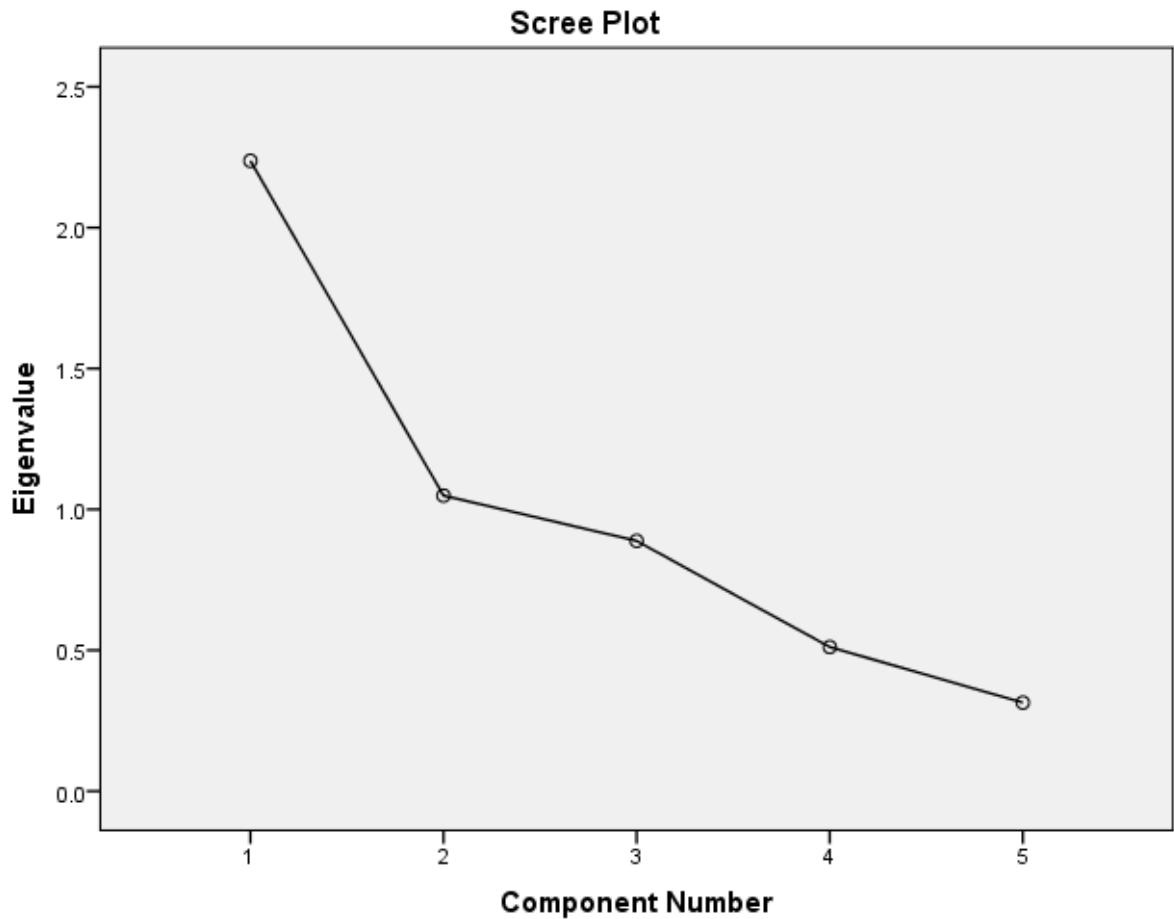


Figure 6.11: Scree plot of the Components Extracted from Factor Analysis for level of investing and implementation in Libyan Banks

6.5 Conclusion

In summary, the three hypotheses of the study were verified and all the study questions were also answered. And all the findings of the study proved to be positive, thus, proving the role of banking sector in sustainable development enhancement via green financing prospects. This chapter has shed light on the results of the study together with discussion of these results and concluded with the main findings and conclusion. Summary, conclusions, recommendations and suggestions for further research are provided in chapter (7) that follows.



Chapter 7

Conclusion and Recommendation

7.1. Introduction

This study gave a practical insight into Libya that has a governance framework for sustainability enforcement. This chapter deals with the main conclusions that the researcher has come to because of the analysis and conclusion of the results and vision to applicate it, also deals with the suggested recommendations and ends with suggestions for further research.

7.2. Conclusion

This study was to investigate the explore if Libya has a governance framework for sustainability enforcement, and to evaluate the limitations of adverse social and environmental impacts through green financing, assessment of the real status of Libya in relation to sustainability issue, assessment of the real status of the relation between sustainability development and banking activities, exploring the major obstacles facing sustainability development correlated to banking policies, and reporting the green finance policies, activities and trends either in the past, present or in future in Libya.

The results of the analysis suggest that there are the differences in the mean score for the level of Libyan banks knowledge, implementation and practicing of "Green Finance" policies. Moreover, the result of the current study's findings confirmed that there is the relationship between Libyan government policies and banks practices concerning sustainable development financing during the last three decades.

The analyses of the results of the present study revealed that the there is no relationship between the level of prior knowledge about the Green Finance and the level of investing and implementation in Libyan Banks.

Many previous studies have confirmed the importance of examining the role of Banking System in preserving sustainable development via green financing strategies, therefore loans that are not in line with the principles of the green loan will not be

"Green Finance". As well as, this new framework of categorization may inject the integrity required to encourage tools such as green loans to be the new form of green financing.

7.3. Results

Through theoretical study and practical, and then to reach a number of results, as following:

1. Due to the lack of laws and regulations that allow the Libyan banking sector to experience the financing of green investments, climate financing, clean energy and all environmentally friendly projects that finance activities that achieve sustainable development objectives in Libya, Libyan banks have not yet submitted funding studies Green and its importance to Libya and did not start to work.
2. Lack of green investment channels in banks that enable savers and investors to invest their money.
3. There is no express and clear knowledge and understanding in the sample of the study about the concept of green financing as a term and a modern concept. Also, the sustainable development was not clear to most of the sample. This indicates that most of the employees of banks and customers are not familiar with the concept of green financing. And the low number of employees in banks with little knowledge of the concept and objectives of sustainable development.
4. Lack of Libyan expertise and skills that can contribute and work in the field of green financing.
5. Internal instability conditions, the environment and the environment surrounding the banks in Libya.
6. The banks in Libya are not seeking to develop their capabilities and exploit them to develop their deposits and increase their profits and profits of their clients in projects that promote sustainable development in the country.
7. Lack of information and communication advanced system that facilitates the process of providing services, consulting and investment banking customers accurately and quickly.

8. The delay in the Libyan banking sector to keep pace with global investment banking and Islamic and international developments.
9. The study showed that no bank mentions in its annual report any steps or initiatives taken to implement green financing and green banking strategy.
10. Lack of support from government and non-governmental organizations and the local community of banks to encourage them to carry out the financing of green projects.
11. There is a great desire among workers and officials of the Libyan banks to start working and the application of green financing strategy as well as the case of banks customers and their desire to improve the reality of the country and keep pace with developments in Libya, similar to developed countries and developing countries that have become in the process of progress.
12. The study shows that there is a close relationship between green financing and sustainable development and that the second cannot be achieved without the application of the first because banks are the financial partner in various economic activities in Libya.
13. shortage of information due to the absence of peace, security and the rule of law in Libya and the difficult circumstances in which Libyan society live obstacles to any initiatives to develop self-Libyan citizen in all fields which include culture in the banking and development of science even at the minimum information that serves the interests.
14. Due to the difficult and unstable conditions experienced by Libya, no laws have been enacted and no legislation has been enacted that allows banks to turn to green banking and start financing sustainable development in order to achieve their objectives that serve the country and the citizen.

7.4 Application of the results of the study

As this study has proved the desire and necessity for the approach and application of green financing strategies in the Libyan banking sector to reach the objectives of sustainable development, the Foundation program can be implemented in the following main points:

- ❖ Prepare a memorandum on the mechanism and the start of the implementation of green funding by the Central Bank to be presented to the Parliament and the

authorities responsible for the decision to approve and make the notes on them.

- ❖ Forming a specialized team to plan, follow up and plan the implementation of green financing in Libyan banks and prepare feasibility studies for green investment projects.
- ❖ Work on training and qualifying national cadres, through courses on green financing activity at home and abroad; to benefit from the experience of other countries to the maximum extent possible.
- ❖ Develop a plan to study policies, strategies and prospects for green financing, with the participation of all banks in Libya and financial institutions related to green financing.
- ❖ To equip all the banks operating in Libya systems and equipment and advanced equipment and advanced communication systems; to serve the needs of this modern activity and green projects.
- ❖ Marketing and promotion of green financing to identify the many advantages and objectives of various, and attract the audience of savers and investors.
- ❖ Enact laws and legislation on green financing, and make it flexible enough to comply with all developments, which may occur on the financial and investment policies of the state.

To accelerate the support of sustainable development through green financing, this will be a catalyst for the process of economic development in the country, and also contribute to the well-being of society and prosperity of the country.

The success of this strategy in Libya depends on the efficiency of its performance by the responsible bodies and the monitoring and follow-up methods of implementation and taking into account the time frame and accuracy in implementation

7.5. Recommendations

Through previous results, the researcher recommends the following:

The current research highlighted the role of Banking System in preserving sustainable development via green financing strategies, nevertheless, further investigation is essential to confirm and verify the results of this study.

- Due to the importance and urgency of the mechanisms of green financing in Libya in order to support the transformation , the responsible authorities has to expedite the granting of the Central Bank permission to engage in green banking activities and the financing of all green investments. And draw the appropriate legislative framework to ensure the benefit of the benefits for banks and customers and the national economy in general, And to avoid what may be blocked by the disadvantages and obstacles. The goal will be achieved only in a state is characterized by security and peace and the rule of law.
- The Central Bank should take its role as the monetary authority in Libya and instruct banks to take steps towards starting green financing by preparing a report consistent with the GRI to prepare reports on the relative importance of preparing sustainability reports including information on achievements and commitments to sustainable development goals in the areas environmental, social and economic governance as the report shows that the bank has become more open to the sustainability reports because of its strong influence in the decision-making as well as banks policy and strategy process.
- Establishing green banks that support the environment and renewable energy and green funds that promote investment in green projects. Green fund revenues in the world are often superior to conventional funds, which are binding on Libya in view of the decline in environmental conditions and climate pollution. Which is facing the Libyan economy and the deterioration of the level of public health of individuals, in exchange for the growing needs of development and population and the provision of employment; therefore, it is necessary to coordinate between all ministries to adopt work to achieve green growth and green development.
- Libya is an oil-rich country that can play a prominent and important role in supporting the production of various types of green fuel and making a quantum leap in the field of energy and petrochemicals and starting to manufacture green oil products. Here comes the role of Libyan banks in

seeking to attract investments and financing in projects new biofuel refineries that need huge capital. This investment is witnessing remarkable progress and progress. Therefore, banks should take the initiative and not hesitate to invest in sustainable green products.

- Attracting talents and competencies to contribute to the success of the implementation of green funding policy. As well as the use of foreign expertise and the most experienced cooperation in this area to create expertise in Libyan cadres and develop them; to be able to deal with modern changes.
- Spreading awareness among citizens of the utmost importance to finance green projects and environmentally friendly, clean energy and the use of non-renewable resources in the manner that leads to a positive tradeoff of other environmental goods.
- Mitigation of the direct intervention of the Central Bank of Libya's policy so as to open the way for the banks operating in the selection of the initiative snapped the best means to invest, which include shares, loans, insurance, bonds and other financial means.
- Open the way for private and foreign investment in employment areas was the preserve of the public sector; through the granting of privileges, guarantees .and introducing legislation and laws in various investment fields that enhance the speed of reaching the goals of sustainable development. Facilitating access to finance increases the attractiveness of small and medium enterprises to the success of green projects.. And the development of investments that operate according to Islamic law; to attract the savings of individuals and work on the development of strategic programs of social responsibility.
- Responding to the desire of customers and citizens to accelerate the provision of financial support by Libyan banks to achieve the well-being of society and to live in a clean environment free of pollutants by green projects in health and green education in all fields, and adopt the culture of green economy, and conservation of resources and mitigation of Effects of climate change. And allocation of public resources for the purpose of improving sustainability over.
- Libya, as a member of the international community, must strive to confront the threats facing the planet by contributing to tackling the phenomenon of climate change, promoting all that is green for the benefit of the environment and human beings, and working to reduce the rates of emissions from burning

oil and gas using the latest techniques in heat exchangers and separation. And that Libya should be an active member of international treaties and conventions.

- Ensure the citizens' rights by providing security, guaranteeing all their economic, social and political rights, empowering women in all fields, giving them all their rights, achieving social justice, providing decent work for all and an equitable transition to low-carbon economies which are the goals of sustainable development.
- Enacting laws and legislations, and building appropriate regulations to encourage green investment because these laws and regulations are important in providing the necessary protection for investors' rights, facilitating transactions and activating the economy, with the requirement that these frameworks be flexible enough to adapt to new variables and assimilate in the form of Legislative and regulatory controls, capable of driving sustainable investment movement consistently.
- Activating and stimulating the Libyan stock market, which has decreased significantly in recent years because of the security situation in the country and the issuance of green and Islamic securities in this market and opened the way for banks to create opportunities to invest money available in the possession of banks, by lending them to buy securities , Providing an integrated market that supports sustainable investment, sustainable financing and plans that promote financial stability and long-term economic growth.
- Green investment in education, training, capacity building and talent development. As a developing country, Libya suffers from a lack of skilled manpower in some services. This requires retraining and rehabilitation of workers. The ILO has identified a new category of workers known as "Green Workers" "Who will play a major role in the future of Libya if they are trained and qualified on a high level and developed them.

This studying concluded to the extent of the need to rebuild Libya, which is facing a number of short and long term challenges and therefore the Libyan banking sector has many tasks and challenges to contribute to the development and prosperity of Libya. And accelerate the pace of investment and set the rules by which to shift towards the green future.

7.6. Further Research

In the light of the present study results, conclusions and recommendations, the following suggestions for further research seem pertinent:

- Make studies about the major obstacles facing sustainability development correlated to banking policies.
- Make study to explore the role of banking sector in sustainable development enhancement via green financing prospects.
- Replicating the present study, it could be replicated in other samples and over a longer period in order to further test its hypothesis.

7.7. Limitations

This study just like other studies suffers from several limitations:

- Obtained the data from a single source; it would be better if multiple sources were used.
- The data for this study were confined on the role of banking sector in sustainable development enhancement via green financing prospects in one country.
- This research's measurement results were acceptable in terms of reliability and validity, but there is certainly a need for additional work to perfect measures, Future research can be conducted to overcome these limitations.

REFERENCES

1. "Declaration of intention to granting licenses to incorporate subsidiary banks", Central Bank of Libya website. www.cbl.gov.ly.
2. "Statue of Islamic branch of Qatari National Bank (Special Annex)". <http://www.qnb.com.qa/alislami>. (2015).
3. A report submitted in April 2017 by Secretary-General of the United Nations to Security Council about United Nations mission of support in Libya.
4. Abdul Salam Al-Zar'ani, Urban Development in Libya, International Information Network:
5. Abo Humaira, M.A., Aswisi, N. M., (2010); the transformation of traditional banks in Libya into Islamic banks: A practical study on Jumhouria Bank and Bank of Commerce & Development, a paper submitted to the Second Islamic Financial Services Conference, Postgraduate Studies Academy, and Tripoli, Libya.
6. Aboasnina, A. A. A.; The role of the central bank of Libya in the era of globalization. Ph. D Thesis, Nottingham Trent University, 2014.
7. Aburounia, *et.al.*, (2005); Islam and sustainable development Sexton Research Institute for the Built and Human Environment University of Salford, Salford M5 4WT h.m.aburounia@pgr.salford.ac.uk.
8. According to "Al-Saidi, Ussama Juma'a, Monetary Policy and its Role in Influencing Money Supply, Analytical Study on the Libyan economy for the period from 1965 to 2001, Master Thesis, Academy of Graduate Studies, Tripoli, 2002, p. 67-76"
9. African Economic Outlook (AEO) 2018; Economic performance and outlook in Libya.
10. Aizawa, M., & Yang, C. (2010). Green Credit, Green Stimulus, Green Revolution? China's Mobilization of Banks for Environmental Cleanup. *The Journal of Environment & Development*, 19(2), 119-144.
11. Ali, M.M. and Abdullah, S.,2017; Green Sukuk: present state and future outlook, International Institute of Advanced Islamic Studies (IAIS),Malaysia.
12. Amin, H. (2012), "An analysis on Islamic insurance participation", *JurnalPengurusan*, Vol. 34, pp. 11-20.
13. Anderson, D. R., & Anderson, K. E. (2009). Sustainability Risk Management. *Risk Management and Insurance Review*, 12 (1), 25 - 38.
14. Annual report of Jumhouria Bank board 1996.
15. Annual report of Wahda Bank board 1998.
16. Arab Human Development Report 2004, Amman, UNDP, p. 235.
17. Arkin,F., (2017); Through China, a green financing leader emerges,31 August 2017.
18. Arqoub, K., 2017,the role of green instruments in achieving sustainable development in Malaysia ,University of 20 Ott, Algeria.

Available at: <http://www.un.org/en/ga/president/65/issues/sustdev.shtml>

Available at: <http://www.uncsd2012.org/history.html#sthash.qortJ5NU>.

19. Babiak, K., & Trendafilova, S. (2011). CSR and environmental responsibility: Motives and pressures to adopt green management practices. *Corporate Social - Responsibility and Environmental Management*, 18(1), 11-24.
20. BăcDorin Paul (2007). History of the concept of sustainable development: literature review, University of Oradea, Faculty of Economics.
21. BăcDorin Paul (2007). History of the concept of sustainable development: literature review, University of Oradea, Faculty of Economics.
22. Baker, S. (2006). *Sustainable Development*. New York, Routledge.
23. Basel Committee. (2005). Compliance and the compliance function in banks. Basel Committee on Banking Supervision.
24. Berion, Nory Abdelsalam, how to establish non-interest bank?, Islamic financial services conference, Tripoli, Libya, p (392), 2008.
25. Bettignies, H. C. de, & Lepineux, F. (Eds.). (2009). *Finance for a better world: the shift toward sustainability*. Houndmills [England]; New York: Palgrave Macmillan.
26. Böhnke, Eidt, Knierim, Richert, Röber, Volz. (2014): How to Make Green Finance Work - Empirical Evidence from Bank and Company Surveys, German Development Institute / Deutsche Institut für Entwicklungspolitik (DIE).
27. Bouma, Jan Jaap / Jeucken, Marcel / Klinkers, Leon (2001). *'Sustainable Banking: The Greening of Finance'* Deloitte & Touche. UK: Greenleaf Publishing.
28. Buttle, M., (2007). 'I'm not in it for the money: Constructing and mediating ethical reconstructions in UK social banking'. *Geoforum* 38 pp. 1076–1008.
29. Buxton, A. (1997). Business ethics: getting on the right track. *CIB News*, February, 1–4.
30. Carroll, A. B., & Shabana, K. M. (2010). The Business Case for Corporate Social Responsibility: A Review of Concepts, Research and Practice. *International Journal of Management Reviews*, 12 (1), 85 – 105.
31. CBL, development of monetary and banking policy in the Great Socialist People's Libyan Arab Jamahiriya, worksheet submitted to the 34th Ordinary Session of the Board of Governors of Central Banks and Arab Monetary Institutions, Tripoli, Libya, September 2010.
32. CBL, Economic Bulletin, Volume 42, Fourth Quarter, 2002.
33. CBL, Economic Bulletin, Volume No.45, Second Quarter, 2005
34. CBL, economic reports, various issuances, Tripoli, Department of Research and Statistics
35. CBL: Economic Bulletins, Different Figures, Tripoli, Bureau of Statistics and Census.
36. CBL: Website www.cbL.GOV.Ly .
37. CDP. (2011). About CDP .
38. Central Bank of Libya Decree No. (3) in 2012.
39. Central bank of Libya. (2012). The fourth annual report for the management oversight of banks and cash in 2012, 2012.
40. Central Bank of LIBYA.(2014). Annual-report- Central Bank of Libya 2014. TRIPOLI.

41. Conley, J. M., & Williams, C. A. (2011). Global Banks as Global Sustainability Regulators?: The Equator Principles. *Law & Policy*, 33(4), 542-575.
42. Coulson, A., & Monks, V. (1999). Corporate environmental performance considerations within bank lending decisions. *Eco-Management and Auditing*, 6(1), 1-10.
43. Danny Stofleth, Short history of sustainable development, Center for Communication and Civic Engagement University of Washington, Seattle.
44. Dawson, A.W. (1996). Pollution and the uncertainty principle. *Chartered Secretary*, September.
45. de la Cuesta, Marta / del Río, Nuria (2001). 'Dineromásético y solidarioparaunasociedad máshumana y responsable' Noticias de economíapublica social y cooperativa 33 pp. 46-52.
46. deClerck, Frans (2009). 'Ethical Banking'. In Zsolnai Laszlo / BodaZsolt / Fekete Laszlo 'Ethical Prospects: Economy, Society and Environment' (319). UK: Springer.
47. DNV GL (2016), "Global Opportunity Report", available at
48. Donald H. Schepers. (2011). The Equator Principles: a promise in progress? *Corporate Governance: The International Journal of Business in Society*, 11(1), 90-106.
49. Donini, A., and Niland, N. (1994) 'Rwanda. Lessons Learned: A Report on the Coordination of Humanitarian Activities.' United Nations, Department of Humanitarian Affairs, and Macrae, J. (1995), Aid under Fire: redefining relief and development assistance in unstable situations, Wilton Park (UK) 7-9 April, 1995. *Disasters*, 19: 361.
50. Doyle, T., Mc Eachern, D., & Mac Gregor, S. (2015). *Environment and Politics* (4 edition). London; New York: Routledge.
51. Elbiah, Abdelmouneim, Money and Banks, a practical study of both of them, (p 220).
52. Ellen MacArthur Foundation (2013). *Towards the Circular Economy: Opportunities for the Consumer Goods Sector*.
53. Ellen Macarthur Foundation, (2015). *Growth Within: A Circular Economy Vision for a Competitive Europe*.
54. ElmelkiAnas / Ben Arab Mounira (2009) 'Ethical Investment and the Social Responsibilities of the Islamic Banks'. *International Business Research* 2 (2) pp. 123-130.
55. EPs Signatory List.(n.d.). Retrieved April 27, 2017, from <http://www.equator-principles.com/index.php/members-reporting> Equator Principles Guidelines.(n.d.).
56. EPs. (2006). The "equator principles" *A financial industry benchmark for determining, assessing and managing social & environmental risk in project financing*.
57. Equator Principles (2012). 'Equator Principles'. Available: <http://www.equator-principles.com>.
58. Estimation of poverty indicators in Jordan for 1997 and 2002 by applying household expenditure and income survey, International Information Network:
59. Eurosif (2012). 'European Sustainable Investment Forum'.

60. Evangelinos, K.I., & Nikolaou, I.E. (2009). Environmental accounting and the banking sector: A framework for measuring environmental–financial risks. *International Journal of Services Sciences* 2(3/4): 366.
61. FEBEA (2012). 'European Federation of Ethical and Alternative Banks'.
62. Fulton, M. (2008). Climate change investment strategies: How a universal bank is leading investments in a low carbon economy. *Research report*, 115-141.
63. Gait, A. H. A. (2009). Libyan attitudes towards Islamic methods of finance: An empirical analysis of retail consumers, business firms and banks. Ph.D. Thesis, Griffith University, Brisbane.
64. Gaps Obstacles in Egypt, Cairo, Faculty of Regional and Urban Planning, Cairo University, p. 21.
65. Garson, G.D. (2001). Guide to writing empirical papers, thesis and dissertations', New York Marcel Dekker, P: 31.
66. Gelder, J.W., Herder, A., & Kouwenhoven, D. (2010). Close the Gap - Benchmarking investment policies of international banks. Nijmegen: BankTrack.
67. General People's Committee for Health, Report on Health Policy in Libya, 2005, p.5.p.13.
68. Global Challenges for Sustainable Development: Strategies for Green Jobs ILO Background Note G8 Labor and Employment Ministers Conference Niigata, Japan, 11 to 13 May 2008.
69. Global Commission on the Economy and Climate (2014), "Better Growth, Better Climate", The New Climate Economy, available at <http://2014.newclimateeconomy.report>.
70. Global Reporting Initiative (2011). 'Global Reporting Initiative'. <http://www.globalreporting.org> .
71. Golafshani, N. (2003). Understanding Reliability and Validity in Qualitative Research. University of Toront. The Qualitative Report. V. 7. No. 4. Article 6.
72. Gray, R., & Bebbington, J. (2001). Accounting for the environment, second ed. Sage: London.
73. Green Bank Report (2012). 'Green Bank Report'. <http://greenbankreport.com>
74. Griggs, D., Stafford-Smith, M., Gaffney, O., Rockstrom, J., Ohman, M. C., Shyamsundar, P., Noble, I. (2013). Policy: Sustainable development goals for people and planet. *Nature*, 495(7441), 305. <https://doi.org/10.1038/495305a>
75. Guo, H. (2005). Pathways to Sustainable Banking in China: From Environmental Risk Management to Green Financing. Master, Lund University, Lund.
76. Haron, S. (1996). Competition and other external determinants of the profitability of Islamic banks. *Islamic Economic Studies*, 4(1), 49-64.
77. Hatch, M. J. and Cunliffe, A. L. (2006). *Organisation Theory*. 2nd ed, Oxford University Press, Oxford.
78. Heale, R. and Twycross, A. (2015). Validity and reliability in quantitative research. Research Gate.
79. Hempel G.H., Colema, A.B., & Simonson, D.G. (1990). *Bank Management*. Wiley: New York.

80. Höhne, Khosla, Fekete, Gilbert,. (2012): Mapping of Green Finance Delivered by IDFC Members in 2011, Ecofys.
http://www.idfc.org/Downloads/Publications/01_green_finance_mappings/IDFC_Green_Finance_Mapping_Report_2012_14-06-12.pdf.
81. Howarth, R. (2012), sustainability, well-being, and economic growth, centre for humans & nature,
<https://www.humansandnature.org/sustainability-well-being-and-economic-growth>.
<http://globalopportunitynetwork.org/the-2016-global-opportunity-report>.
<http://search.proquest.com/openview/199387b02e78f0f75383719b6df18c39/19pqorigsite=gscholar&cbl=2035950>.
- <http://unstats.un.org/unsd/methods/poverty/ESCWA/14.%20P6.%20Jordan.ppt#281.26,Slide26>.
http://www.ellenmacarthurfoundation.org/assets/downloads/publications/TCE_Report-2013.
<http://www.equator-principles.com/index.php/ep3>
<http://www.kuwait3sl.com/droos/index.php?lang=0&CODE=14&id=464>
<http://www.ndp.org.eg/downloads/EgyptianWoman02.doc>.
<http://www.unepfi.org/about/background/index.html>.
<https://doi.org/10.1002/bse.1810>.
<https://doi.org/10.1002/csr.77>.
[https://doi.org/10.1016/S0140-6736\(12\)60685-0](https://doi.org/10.1016/S0140-6736(12)60685-0)
<https://doi.org/10.1016Zj.worlddev.2006.10.013>
<https://doi.org/10.1016Zj.worlddev.2006.10.013>
<https://doi.org/10.1016Zj.worlddev.2006.10.013>.
<https://doi.org/10.1038/495305a>.
<https://doi.org/10.1108/14720701111108871>
<https://doi.org/10.1111/j.1467-9930.2011.00348.x>
<https://doi.org/10.1111/j.1467-9930.2011.00348.x>.
<https://doi.org/10.1111/j.1468-2370.2009.00275.x>.
<https://doi.org/10.1111/j.1540-6296.2009.01152.x>.
<https://doi.org/10.1163/157181009X125812581245929604>
https://www.researchgate.net/publication/224000475_Climate_Change_Sustainability_and_Corporate_Social_Responsibility_the_Role_of_Financial_Institutions,
 accessed 29.05.2016.
82. Human Development Report 1999, Tripoli: Issued by the General Authority for Documentation and Information, p.1
83. Human Development Report 2005 New York: UNDP, p.28.
84. Human Development Report 2005, op. Cit., p. 251-352.
85. Human Development Report 2005, op. Cit., p. 258-259.
86. Human Development Report 2005, op. Cit., Pp. 240-242.
87. Humanity Development Report (1998), New York, UNDP,PP(107).
88. International Finance Corporaton (IFC) (2007). '*Banking on Sustainability: Financing Environmental and Social Opportunities in Emerging Markets*'.
89. Issa Hamad Al-Farsi, Population and Development in the Libyan Economy, Journal of Economic Research, Vol. XV, 2004, p.83.
90. IUCN, World Conservation Strategy: Living Resource Conservation for Sustainable Development (Gland, Switzerland: International Union for

Conservation of Nature and Natural Resources, United Nations Environment Program and World Wildlife Fund,1980).

91. Jabareen, Y. (2008). A New Conceptual Framework for Sustainable Development. *Environment, Development and Sustainability*, 10(2), 179-192. <https://doi.org/10.1007/s10668-006-9058-z>
92. Jeremy L. Caradonna. (2014). *Sustainability: A History*. Oxford, New York: Oxford University Press.
93. Jeucken, M., & Bouma, J.J. (1999). The changing environment of banks. *Greener Management International*, 27, 21-35.
94. Jeucken, Marcel (2001). 'Banking and sustainability: Slow starters are gaining pace'. Available: <http://www.sustainability-in-finance.com> - retrieved 22 Jan 2012.
95. Jumhouria Bank Publication No. (1) in 2013, dated 12 Feb 2013.
96. Jumhouria Bank website, Islamic banking sector, www.islamicbank.ly (op. cit.).
97. Kai Yeh, B., 2017; Greening the financial system: Exploring the ways forward, European Banking Federation Institute of International Finance Paulson Institute Securities Industry and Financial Markets Association, Nov 2017, http://unepinquiry.org/?s=&post_type=publication.
98. Keele, D., & DeHart, S. (2011). Partners of USEPA Climate Leaders: An Event Study on Stock Performance. *Business Strategy and the Environment*, 20(8), 485-497.
99. Kendric, F. (2004), "Ethical Banking", *ABA Banking Journal*, Vol. 96 No. 6.
100. Khalid bin Amor, Problems of Spatial Development in Libya, *Journal of Human and Applied Sciences*, Asmarya University, N(25), p.34, September 2015.
101. Kumar. (2017), Sustainable development and its dimensions..
102. Lele, S. (1991). "Sustainable Development: A critical review." *World Development* 19(6): 607-621.
103. Li, X., & Xia, G. (2014). *Zhongguo lv se xinrongbaogao*. [China green finance report]. China Finance Press: Beijing.
104. Libyan Foreign Bank, Website.
105. *Libyan Journal of Information*, General Authority for Documentation and Information, 3rd Issue, September 2005, p. 47-48.
106. Lindenberg, N. (2014). Definition of Green Finance. <https://www.cbd.int/financial/gcf/definition-greenfinance>.
107. Lindenberg, N., 2014; Definition of green finance, *Mitarbeitersonstige*, Bonn: German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE).
108. McDonough, W., & Braungart, M. (2010). *Cradle to cradle: Remaking the way we make things*. MacMillan.
109. Mellor, Mary (2010). 'The Future of Money. From Financial Crisis to Public Resource'. USA: Pluto Press.
110. Mengze, H., & Wei, L. (2015). A Comparative Study on Environment Credit Risk Management of Commercial Banks in the Asia-Pacific Region. *Business Strategy and the Environment*, 24(3), 159-174.

111. MEP. (2008). MEP makes public the stage-based progress in green credit policy implementation.
http://english.sepa.gov.cn/News_service/news_release/200803/t20080310_119113.htm.
112. Miehchel, E. P.; National economic strategy, Moment for Action, Monitor company group,2007.
113. Mirza, A. K., Libya; wasted chances and hopeful renew.
<http://iraqieconomists.net/ar/2012/09/05> .
114. Murray, A., Skene, K., & Haynes, K. (2015). The Circular Economy: An Interdisciplinary Exploration of the Concept and Application in a Global Context. *Journal of Business Ethics*, 1-12.
115. Mutahhari M. Ayatullah (2014) Man and the Holy Qur'an. Man and Universe, chapter 22.
<http://www.najaf.org/english/book/19/22.ht>.
116. Nandy, M., &Lodh, S. (2012). Do banks value the eco-friendliness of firms in their corporate lending decision? Some empirical evidence.*International Review of Financial Analysis*, 25, 83-93.
117. National Commission for Scientific Research, study of the employment of Libyan economic resources for building the future,
118. National Human Development Report 2003, Tripoli: General Authority for Documentation and Information, p. 153.
119. NazimUddin (2016); Shariah Based Banking and Green Financing: Evidence from Bangladesh, *IOSR Journal of Business and Management (IOSR-JBM)* e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 18, Issue 1 .Ver. III (Jan. 2016), PP 79-90
www.iosrjournals.org.
120. OECD, (2001). The DAC Guidelines, Strategies for Sustainable Development: Guidance for Development Co-operation.
121. OECD, Aid Risks in Fragile and Transitional Contexts, OECD, Paris, 2012 .
122. Olson, D., & Zoubi, T. (2016).Convergence in bank performance for commercial and Islamic banks during and after the Global Financial Crisis.*The Quarterly Review of Economics and Finance*, 65, 71-87.
123. Ong, D. M. (2010).From “International” to “Transnational” Environmental Law?A Legal Assessment of the Contribution of the “Equator Principles” to International Environmental Law. *Nordic Journal of International Law*, 79(1), 35-74.
124. Paul, B.D.(2007). History of the concept of sustainable development: literature review,University of Oradea, Faculty of Economics.
125. People's Libyan Arab Jamahiriya, Statistical Yearbook 1998, General Authority for Documentation and Information, p.15.
126. People's Libyan Arab Jamahiriya, Libyan Economy 2002, Benghazi: Center for Economic Research, p. 17.
127. People's Libyan Arab Jamahiriya, Preliminary Results of the Population Census, Demographic Indicators, 2006, p.75.
128. Poshakwale, S. S., & Qian, B. (2012).Regulatory Policy Lessons from Banking Sector Reforms in Egypt.In V. Murinde (Ed.), *Bank Regulatory Forms in Africa* (pp. 135–155).

129. Prizzia Ross (2007) - Sustainable Development in an International Perspective, published in Handbook of Globalization and the Environment, CRC Press, Boca Raton.
130. PWC. (2013): Exploring Green Finance Incentives in China, PWC. <https://www.pwchk.com/en/migration/pdf/green-finance-incentives-oct2013-eng>.
131. QianWu(2016) ,PwC,Hong Kong,<https://www.pwchk.com/en/about-us/corporate-responsibility/green-finance.html>.
132. Quoted from "Amal Abu BakrWaddan, Banking System and Fund Supply in Libya from 1980-1999, Master Thesis, Academy of Graduate Studies, Tripoli, 2000".
133. Quick Guide to Sustainable Development, Quick Guide, March 2015.
134. Ramzy, Y. (2013, November). Green economy: a pathway to sustainable economic growth in Egypt.
135. Reyes, D.R. :The Sustainable Development Goals and the Dangers of Policy Reductionism, International Journal of Policy Studies Vol.8, No.1, 2017.
136. Richardson, B. J. (2009), "Climate finance and its governance: Moving to a low carbon economy through socially responsible financing?", *International & Comparative Law Quarterly*, Vol. 58 No. 3, pp. 597-626.
137. RIPESS (2012). '*Intercontinental Network for the promotion of the social solidarity economy*'. <http://www.ripess.org> .
138. Robert G. Eccles, Michael P. Krzus, and Sydney Ribot, (2014): The Integrated Reporting Movement: Meaning, Momentum, Motives, and Materiality; John Wiley & Sons, Inc. Excerpts reprinted with permission of John Wiley & Sons, Inc.
139. Robert W. Kates, Thomas M. Parris, and Anthony A. Leiserowitz (2005); what is sustainable development? Goals, indicators, values, and practice photo credits, Corbis.
140. Ruggie, J. G. (2014). Global Governance and "New Governance Theory": Lessons from Business and Human Rights. *Global Governance: A Review of Multilateralism and International Organizations*, 20(1), 5–17. <https://doi.org/10.5555/1075-2846-20.1.5>.
141. Sachs, J. D. (2012). From Millennium Development Goals to Sustainable Development Goals. *The Lancet*, 379(9832), 2206-2211.
142. Salazar, J. E. (1998). Environmental Finance: Linking Two Worlds, Paper presented at a workshop on Financial Innovations for Biodiversity. 10th Global Biodiversity Forum, Bratislava, Slovakia, May 1998.
143. Saleh Al-amin Al-arbah, Money and Banks, Dar Al-arbah for printing, publishing and distributing, Misurata, Libya, (2nd. Ed.), (p 121), 1996.
144. Saleh AlaminAlarbah (1985), banking system in the Great Socialist People's Libyan Arab Jamahiriya, Higher Institute for management and banking business, (pp 93 – 107).
145. San Emeterio, J. / Retolaza, A. (2003). 'Existeespacioparaunabancaética?', *LanHarremanak* 2 (9) pp. 127-163.
146. San-Jose, Leire / Retolaza, Jose Luis / Gutierrez, Jorge (2009). 'Ethical banks: an Alternative in the Financial Crisis'. Paper presented at '22nd EBEN Annual Conference', Athens (Greece) September.

147. San-Jose, Leire / Retolaza, Jose Luis / Gutierrez, Jorge (2011). 'Ethical banks: an Alternative in the Financial Crisis'. Paper presented at '22nd EBEN Annual Conference', Athens (Greece).
148. Sarokin, D., &Schulkin, J. (1991). Environmentalism and the right-to-know: Expanding the practice of democracy. *Ecological Economics*, 4(3), 175-189.
149. Saunders, A. (1999). *Credit risk measurement: new approaches to value at risk and other paradigms*. Wiley: New York.
150. Schaefer(2011), *Green Finance An Innovative Approach to Fostering Sustainable Economic Development and Adaptation to Climate Change*, Deutsche GesellschaftfürInternationaleZusammenareit (GIZ) GmbH Registered Offices Bonn and Eschborn, Germany.
151. Schaltegger, S., & Wagner, M. (2011). Sustainable entrepreneurship and sustainability innovation: Categories and interactions. *Business Strategy and the Environment*, 20(4), 222-237.
152. Scheire, Christophe / De Maertelaere, Sofie (2009): 'A preliminary research paper on the business models of the founding member banks of the Global Alliance for Banking on Values'. Available: <http://www.expertisepunt.be>.
153. Scholtens, B., & Dam, L. (2007).Banking on the Equator. Are Banks that Adopted the Equator Principles Different from Non-Adopters? *World Development*, 35 (8), 1307 - 1328.
154. Scholtens, B., Zhou, Y., Cerin, Pontus, & Hassel, Lars.(2008). Stakeholder relations and financial performance.*Sustainable Development*, 16(3), 213-232.
155. Sekreter, A., 2017; *Green Finance and Islamic Finance*, International Journal of Social Sciences & Educational Studies, Vol.4, No.3.
156. Smith, D.R. (1994). *Environmental risk: Credit approaches and opportunities: An interim report*. United Nations environment. McGraw Hill: Geneva.
157. Stanghellini et al. (2008), "Climate Change, Sustainability and Corporate Social Responsibility: the Role of Financial Institutions", available at
158. Statistical Report of the Health Sector, Tripoli: Secretariat of the General People's Committee for Health, 2005, pp. 27-29.
159. Strange, T. and Bayley, A.(2008) *Sustainable Development Linking economy, society, environment*, OECD INSIGHTS, p 24-28
160. *Tackling wicked problems: A Public Policy Perspective*, Australian Public Service Commission, 2007.
161. the 2030 Agenda for Sustainable Development, A/RES/70/1 (21 October
162. *The Arabian Humanity Development Report(2002)*, Amman, UNDP,PP(31-46).
163. *The Global Alliance for Banking on Values (GABV) Publications*, 2011. <http://www.gabv.org>.

164. Thompson, C. & Cowton, P. (2004). Bringing the environment into bank lending: Implications for environmental reporting. *The British Accounting Review*, 36(2), 197-218.
165. Thompson, P. (1998). Bank lending and the environment policies and opportunities. *International Journal of Bank Marketing* 16(6): 243–252. Doi: 10.1108/02652329810241384.
166. Tolba, M. K., (1984a): The premises for building a sustainable society -- Address to the World Commission on Environment and Development, October 1984 (Nairobi: United Nations Environment Programme,).
167. Tripoli: unpublished study, 1993, p.96.
168. U N The Sustainable Development Goals Report, New York, 2017.
169. UDP, Human Development Report 2004, New York: UNDP, p. 169.
170. UN Global Compact.(2011), About the UN Global Compact.<http://www.unglobalcompact.org/AboutTheGC/index.html>
171. UN Secretary-General's report to the Security Council on the UN Support Mission in Libya. <http://www.oss-online.org/en/preparation-libya-climate-finance-capacity-building-workshop-national-authority-designated-members> Retrived:5.1.2019.
172. UNCSD (United Nations Conference on Sustainable Development) (2012). The History of Sustainable Development in the United Nations.
173. UNCSD. (2012). Implementing Inclusive Green Economy Approaches: *Asian Regional Dialogue on Country Experiences and Ways Forward for Economic Decision Maker*.
174. UNDESA Report. (2015). World population projected to reach 9.7 billion by 2050. Retrieved from 2015-report.html
175. UNDP, Executive Board of the United Nations Development program and of the United Nations Population fund "Country program outline for Libya 2006 – 2009" 2005, P. 3 (<http://www.libya.org/index/php?Option=com>).
176. UNDP, Human Development Report 2003, Cairo, p. 109-110.
177. UNEP FI. (2007). Green Financial Products and Services - Current Trends and Future Opportunities in North America. Toronto ICF Consulting Canada, Inc.
178. UNEP FI. (2010). About UNEP FI
179. Background.<http://www.unepfi.org/about/background/index.html>.
180. UNEP FI. (2011). UNEP Statement by Financial Institutions on the Environment & Sustainable Development. UNEP FI website.
181. UNEP-(2016); Green Finance for Developing Countries; Needs, Concerns and Innovations. Inquiry. Design of a Sustainable Financial System.
182. Unified Arab Economic Report 2002, Abu Dhabi, Center for Arab Development, p. 257.
183. United Nations (2015), General Assembly resolution 70/1, Transforming our world.
184. United Nations General Assembly.
185. Valdivieso P, Villena-Roldán B (2014) Opening the black box of social capital formation. *Am PolitSci Rev* 108:121–143.

186. Vogler, John (2007) - The international politics of sustainable development, published in Handbook of Sustainable Development, Edward Elgar Publishing Limited, Cheltenham.
186. Wafa Abdel Moneim Amer, The Case of Girl Education between the Challenges of Sustainable Development and Gender
187. Wang, Y. (2013). Lv se xindaiyanjiuyufazhanzongshu. [Research in Green Credit Policy and development summary]. Times Finance, 7: 224-225.
188. Weber, O. (2005). Sustainability benchmarking of European banks and financial service organizations. Corporate Social Responsibility and Environmental Management, 12(2), 73-87.
189. Weber, O. (2012). Environmental Credit Risk Management in Banks and Financial Service Institutions. *Business Strategy and the Environment*, 21(4), 248-263.
190. Weber, O. (2014b). The financial sector's impact on sustainable development. *Journal of Sustainable Finance & Investment*, 4(1), 1-8.
191. Weber, O. (2016). The Sustainability Performance of Chinese Banks: Institutional Impact. Toronto, ON: University of Toronto Press.
192. Weber, O., & Banks, Y. (2012). Corporate sustainability assessment in financing the extractive sector. *Journal of Sustainable Finance & Investment* 2(1): 64–81. Doi:10.1080/20430795.2012.702501.
193. Weber, O., Fenchel, M., & Scholz, R. (2008). Empirical analysis of the integration of environmental risks into the credit risk management process of European banks. *Business Strategy and the Environment*, 17(3), 149-159.
194. Weber, O., Hoque, A., & Ayub Islam, M. (2015). Incorporating environmental criteria into credit risk management in Bangladeshi banks. *Journal of Sustainable Finance & Investment*, 5(1-2), 1-15.
195. Wei, J. N. (2009, Sep 14). Si wayitouzijihua lv se xindai de jiyuyutiaozhan. [\$4 trillion stimulus package: Opportunities and challenges to the green credit policy]. Securities Daily.
196. Wijkman, A. & Skånberg, K. (2015). The Circular Economy and Benefits for Society. Jobs and Climate Clear Winners in an Economy Based on Renewable Energy and Resource Efficiency. A study pertaining to Finland, France, the Netherlands, Spain and Sweden. Club of Rome. Available from: <http://wijkman.se/wp-content/uploads/2015/10/The-Circular-Economy-and-Benefits-for-Society>.
197. Wijkman, A., & Rockström, J. (2012). Bankrupting nature: Denying our planetary boundaries. Routledge.
198. World Bank article; Libya: Economic Outlook, April 2017. www.uabonline.org/en/research/banking/.../3864/3
199. Xu, L. (2013). “On the Evaluation of Performance System Incorporating “Green Credit” Policies in China’s Financial Industry”, *Journal of Financial Risk Management*, vol.2, no. 2, p. 33–37.
200. Yu, X.G. (2011). Zhongguoyinhangyehuangjingjilu [Environmental report on Chinese banks]. Kunming: Green Watershed.
201. Zadek, S. and Cassie Flynn , South-Originating Green Finance: Exploring the Potential, November 2013, The Geneva International Finance Dialogues. NazmulHaque, Importance/Necessity / Significance /

Role of Central Bank. Agricultural banking,2018 Banking System & Bank Management,banktheories.com.

202. Zeidan, R., Boechat, C., & Fleury, A. (2014). Developing a Sustainability Credit Score System. *Journal of Business Ethics*, 127 (2), 283 – 296. <https://doi.org/10.1007/s10551-013-2034-2>
203. Zuckerman, J., Frejova, J., Granoff, I., and Nelson, D., (2016). "Investing at Least a Trillion Dollars a Year in Clean Energy. Contributing paper for Seizing the Global Opportunity: Partnerships for Better Growth and a Better Climate". *New Climate Economy*, London and Washington, DC.



APPENDCIES



APPENDIX 1

QUESTIONNAIRE

We appreciate your taking the time to answer this survey.
All of the questions have been carefully considered. Responses will be treated as fully confidential.

This survey was completed by student as a part of her PhD . Study entitled:

Role of Banking Sector in sustainable development enhancement *via* green financing prospects.

(A case study of Libya)

2019

According to ethical, academic roles and considerations; data of this questionnaire will be handled secretly for the purposes of academic research use only and will not be delivered to another partner

Basic and Personal Data:

The following Basic information of the person responsible for submitting the questionnaire or the main contact person (although it is Optional), but kindly it is important, for follows up if necessary.

Experience	Less than 5 Years ()	5- 10 Years ()	10-15 Years ()	More than 15 Years ()
Academic Graduation	Ph.D. ()	M.Sc. ()	BA ()	H.Institue ()

The level of Libyan banks knowledge about the Green Finance

No.	Question	Answer	
		Yes	no
1.	Does your know what is meant by green finance.		
2.	I think that the green finance concept is a sounded concept in Libya.		
3.	Would you aware with the types of credentials devoted to the green finance in Libya?		
4.	I know that Libya is a member of an international institutes and organizations involved in green finance?		
5.	Did you think that green finance policies will be introduced in the Libyan banks activities mainstream?		
6.	Would you think that green finance policies will be coincident with Libyan banking culture?		
7.	Would you think that there is a tendency for introducing green finance policies in the financial plans of the banks all over Libya?		
8.	In your opinion, what about the future plans for green finance in Libyan banks?		
9.	Would you heard about the green finance before?		
10.	Would you know anything about environmental hazards in Libya?		
11.	Would you know anything about the stringent economical problems in Libya?		
12.	Would you know anything about sounded sociological problems in Libya?		
13.	Would you know anything about the role of your bank towards facing each one of those three problems?		
14.	Would you know anything about united Nations efforts towards any of the three previously mentioned topics?		
15.	Would you know anything concerning the role of your bank towards facing each one of those topics?		
16.	Did you read about green finance in any publications, newspapers or other resources?		
17.	Can you remember the first time you heard about?		
18.	Did you invited to any sessions or conferences conducted with green finance before?		
19.	Would you have a knowledge if Libya is a member of any international institute or organization		

	involved in green finance?		
20.	Would you aware with the types of credentials devoted to the environmental issues in Libya?		
21.	Is your bank involved in this types of finance?		
22.	Is there any official announcements from the central bank of Libya or any governmental authority were directed to your bank during last years concerning green finance issues ?		
23.	Is there any non - governmental announcements from any civil or academic organization inside or outside Libya were directed to your bank during last years concerning green finance issues ?		
24.	Would you heard about the sustainability development, green banks, green sustainability or greening the banks before?		
25.	Would you think that there is a difference between the above mentioned terms ,expressions and green finance?		
26.	Up to your knowledge, is there any projects correlated to the green finance or sustainability development in your bank?		
27.	Would you remember if any of your bank customers inside or outside Libya have applied for green finance during last years before?		
28.	Did you think that green finance policies will be introduced in the Libyan banks activities mainstream?		
29.	Would you think that green finance policies will be coincident with Libyan banking culture?		
30.	Would you think that there is a tendency for introducing green finance policies in the financial plans of the bank?		
31.	Would you think that green finance is an important issue for Libyan customers?		
32.	Up to your knowledge, is there any one of your businessman you know try to invest in projects correlated to the green finance or sustainability development in your bank?		
33.	Would you think that investing in green economy is an ethical and moral believe for achieving social responsibility or just a business ??		

Implementation and practicing of "Green Finance" policies

No.	Question	Answer	
		yes	no
1	This delay in implementation is rendered mainly to the absence of national strategic plan in Libya.		
2	This delay in implementation is rendered mainly to the and crisis after 2011 revolution in Libya.		
3	This delay in implementation is rendered mainly to the non clear policies of the central bank of Libya.		
4	This delay in implementation is rendered mainly to the bank policies towards financing non risky projects only.		
5	In what time your bank has implemented and practiced this policies? a-Since one year. b- Since two years. c- Since three years. d- More that three years		
6	Would you remember if any of your bank customers inside or outside Libya have applied and accepted for green finance during last years before?		
7	According to your bank policies; does offered green finances were relayed on the nature of the business sector? (For example; environmental, economic and social)		
8	According to your bank policies; does the offered green finances were relayed on the nature of the project itself?		

Libyan government policies

No.	Question	Answer	
		yes	no
1	The bank has its own plan concerning green finance implementation, but it doesn't activated yet.		
2	Your bank policies are bank-driven, not a central bank- driven.		
3	Occasionally, on behalf of green finance issues, your bank announced from the central bank of Libya and governmental authorities during last years?		
4	Occasionally, on behalf of green finance issues, your bank announced from a non-governmental, civil, and academic organizations inside and outside Libya during last years?		
5	does a higher policy to accept projects correlated to the green finance or sustainability development in your bank?		
6	Does a moderate policy to accept projects correlated to the green finance or sustainability development in your bank?		
7	Does a negotiable policy between bank officials and customer to accept projects correlated to the green finance or sustainability development in your bank?		

Banks practices concerning sustainable development financing

No.	Question	Answer	
		yes	no
1	Neither of central bank nor any banks in Libya practicing this type of finance.		
2	Your bank usually invited to sessions and conferences conducted with green finance before.		
3	Your bank practicing green finance in different names, terms or conditions?		
4	Your bank is involved in this types of finance?		
5	According to your bank policies; acceptance of the green finances are relayed on the nature of the business sector? (For example; environmental, economic and social)		
6	According to your bank policies; does the acceptance of the green finances were relayed on the nature of the project itself and not on the nature of the business sector.		

The level of investing and implementation in Libyan Banks

No.	Question	Answer	
1	In your opinion, when talking about the environmental domains financially supported by your bank, Is it: a) Low carbon emission projects? b) Low energy consuming projects? c) Agricultural organic projects? d) Water pollution treatment projects? e) Technology- supported low human resources projects?	A B C D E	
2	Can you rate the following sectors according to their priority for bank in financial prospect? a) Environmental sector then Economic. b) Economic sector then Environmental. c) Environmental sector then Social. d) Social sector then Economic.	A B C D	
3	Can you rate the following sectors according to their priority for you if your bank when making a decision to be involved in financial prospect? a) Environmental sector then Economic. b) Economic sector then Environmental. c) Environmental sector then Social. d) Social sector then Economic.	A B C D	
		yes	no
4	What is the most prominent project involved in ecological, economic or social welfare you intend to establish and hope to be financed via your bank?		
5	Could you negotiate your bank and take the same forward step action towards investing in green economy?		

Thanks For you

APPENDIX 2

Table(4 -1): Showing progress in Central Bank of Libya Assets and Liabilities(1985-2005) in million LD.

Liabilities (3+7)							Sum of Assets = Sum of Liabilities	Assets (1+8)								Year
Liabilities of banking operations				Currency issue liabilities				SUM 2+3+4 +5+6+ 7 = (8)	Assets of banking operations						Curren cy Issue Asset s (1)	
SUM 4+5+6= (7)	Provisions, reserves and other liabilities (6)	Deposits (Current Accounts) (5)	Capital and Reserves (4)	SUM 1+2= (3)	Currency in banking operations (2)	Currency outside CBL (1)			Another Assets (7)	Cash in the fund (6)	Shares and local and foreign investment (5)	Loans and facilities for public entities (4)	Public debt granted to the public treasury (3)	Foreign treasury bonds and bills and balances for convertib le currencie s (2)		
4504.2	1787.9	2458.3	258.0	1009.9	0.1	1009.8	5514.1	4504.2	2067.9	0.1	530.3	350.8	798.2	756.9	1009.9	1985
4624.6	1780.7	2553.9	290.0	1053.4	0.3	1053.1	5678.0	4624.6	2556.8	0.3	305.7	347.4	656.4	758.0	1053.4	1986
4630.7	1692.5	2628.2	310.0	1097.6	0.2	1097.4	5728.3	4630.7	2812.4	0.2	384.3	382.2	620.8	430.8	1097.6	1987
4464.0	1868.0	2271.0	325.0	931.7	0.1	931.6	5395.7	4464.0	2847.9	0.1	387.6	382.2	595.6	250.6	931.7	1988
4884.9	1933.6	2621.3	330.0	1162.8	0.3	1162.5	6047.8	4884.9	458.6	0.3	287.7	351.7	3668.8	117.8	1162.8	1989

5499.4	1980.6	3188.3	330.0	1497.8	0.2	1497.6	6997.2	5499.4	350.4	0.2	570.9	479.3	3928.1	170.5	1497.8	1990
5733.3	2428.0	2975.3	330.0	1675.2	0.1	1675.1	7408.5	5733.3	318.3	0.1	701.1	490.6	4180.0	43.2	1675.2	1991
5657.8	1987.9	3339.9	330.0	2042.0	0.1	2041.9	7699.8	5657.8	470.0	0.1	446.2	459.4	4244.2	37.7	2042.0	1992
5444.1	1953.3	3160.8	330.0	2286.6	0.2	2286.4	7730.7	5444.1	872.8	0.2	632.6	457.5	3469.2	11.8	2286.6	1993
6979.9	1847.0	4802.9	330.0	2105.9	0.2	2105.7	9085.8	6979.9	1381.3	0.2	663.0	520.7	4403.3	11.4	2105.9	1994
8001.8	2005.9	5665.9	330.0	2134.6	0.1	2134.5	10136.4	8001.8	1367.1	0.1	663.2	770.3	5180.3	20.8	2134.6	1995
8264.7	1961.8	5972.9	330.0	2506.6	0.3	2506.3	10771.3	8264.7	1492.7	0.3	909.1	729.6	5024.2	108.8	2506.6	1996
8909.7	1951.3	6628.4	330.0	2611.2	0.2	2611.0	11520.9	8909.7	1571.3	0.2	992.8	734.4	5156.9	454.1	2611.2	1997
9495.3	2434.2	6731.1	330.0	2787.7	0.1	2787.6	12283.0	9495.3	1733.4	0.1	1022.9	750.5	5827.2	161.2	2787.7	1998
9387.1	1882.1	7175	330.0	2744.1	0.1	2744.0	12131.2	9387.1	2083.5	0.1	1104.1	747.9	5070.1	381.4	2744.1	1999
12424.3	2770.3	9324	330.0	2826.7	0.2	2826.5	15251.0	12424.3	1765.8	0.2	1654	763.2	5320.8	2920.3	2826.7	2000
14611.0	4335.9	9945.1	330.0	2690.7	0.3	2690.4	17301.7	14611.0	891.2	0.3	1187.1	778.2	6181.2	5573.0	2690.7	2001
23503.0	13304.6	9868.4	330.0	2751.8	0.3	2751.5	26254.8	23503	769.1	0.3	1386.7	1151.0	6181.8	14014.1	2751.8	2002

32366.6	20246.3	11790.3	330.0	2883.2	0.2	2883	35249.9	32366.6	1355.1	0.2	1326.3	1536.8	6184.1	21964.1	2883.3	2003
33422.0	10710.7	22381.3	330.0	2794.7	0.4	2794.3	36216.7	33422.0	1844.4	0.4	1329.8	1706.0	0.0	28541.4	2794.7	2004
54934.8	12437.9	41996.9	500.0	3482.1	0.4	3481.7	58416.9	54934.8	1423.9	0.4	1554.0	2727.3	0.0	49229.2	3482.1	2005
Source: 1) LCB, Economic Reports, Different issues. 2) LCB, Economic Publications, Different issues																

Table(4 -2): Showing The relative importance of the Assets and Liabilities components of Central Bank of Libya (1985-2005).

Total of assets and Liabilities of CBL		Assets and Liabilities of banking processes		Assets and Liabilities of currency issue		Year
Relative importance(%)	Value	Relative importance(%)	Value	Relative importance(%)	Value	
-	5514.1	81.7	4504.2	18.2	1009.9	1985
3	5678.0	81.4	4624.6	18.6	1053.4	1986
0.9	5728.3	80.8	4630.7	19.2	1097.6	1987
5.8-	5395.7	82.7	4464.0	17.3	931.7	1988
12.1	6047.8	80.8	4884.9	19.2	1162.8	1989
15.7	6997.2	78.6	5499.4	21.4	1497.8	1990
5.9	7408.5	77.4	5733.3	22.6	1675.2	1991
3.8	7699.8	73.5	5657.8	26.5	2042.0	1992
0.4	7730.7	70.4	5444.1	29.6	2286.6	1993
17.5	9085.8	76.8	6979.9	23.2	2105.9	1994
11.6	10136.4	78.9	8001.8	21.1	2134.6	1995
6.3	10771.3	76.7	8264.7	23.3	2506.6	1996
7	11520.9	77.3	8909.7	22.7	2611.2	1997
6.6	12283.0	77.3	9495.3	22.7	2787.7	1998

1.2-	12131.2	77.4	9387.1	22.6	2744.1	1999
25.7	15251.0	81.5	12424.3	18.5	2826.7	2000
13.4	17301.7	84.4	14611.0	15.6	2690.7	2001
51.7	26254.8	89.5	23503.0	10.5	2751.8	2002
34.3	35249.9	91.8	32366.6	8.2	2883.3	2003
2.7	36216.7	92.3	33422.0	7.7	2794.7	2004
61.3	58416.9	94.0	54934.8	6.0	3482.1	2005
13 %	Growth Rate Averag	81.2 %	Relative Importance Average	18.8 %	Relative Importance Average	

Table(4 -3): Showing Assets and Liabilities of Central Bank of Libya (In Millions of LD).

Assets	End of									
	2018.09.30	2018.08.31	2018.07.31	Q2 2018	Q1 2018	2017	2016	2015	2014	2013
Banking Operations:	158,072.8	156,786.6	156,612.8	155,570.7	147,995.8	145,703.9	132,686.9	140,022.2	141,998.6	148,201.1
Foreign Treasury Bills, Securities & Balances in Convertible Currencies	72,911.6	71,663.6	71,491.4	71,218.8	67,877.9	65,816.0	62,818.4	75,228.9	96,444.5	125,694.6
Public Treasury Bills & Securities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Loans & Advances to Treasury	63,122.8	63,120.8	63,110.8	62,272.3	57,900.2	57,849.4	46,559.3	40,882.7	21,711.1	0.0
Loans & Advances to Treasury	120.2	120.2	119.7	100.6	77.5	0.0	0.0	985.8	1,098.8	259.6
Loans & Advances to Commercial Banks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Investments	17,394.8	17,392.0	17,389.1	17,366.4	17,688.3	17,703.3	19,181.0	18,676.8	18,427.9	18,015.6
Cash in Vault	1.6	1.3	7.6	3.2	1.6	1.8	3.9	1.0	0.4	0.7
Other Assets	4,521.8	4,488.7	4,494.1	4,609.4	4,450.3	4,333.4	4,124.3	4,247.0	4,315.9	4,230.6
Currency Issued:	35,388.7	35,317.3	34,589.6	33,825.2	32,494.3	31,404.8	27,701.8	23,751.9	18,795.2	15,043.2
Bills Balances in Convertible Currencies	35,388.7	35,317.3	34,589.6	33,825.2	32,494.3	31,404.8	27,701.8	23,751.9	18,795.2	15,043.2
Total Assets	193,461.5	192,103.9	191,202.4	189,395.9	180,490.1	177,108.7	160,388.7	163,774.1	160,793.8	163,244.3

Banking Operations:	158,072.8	156,786.6	156,612.8	155,570.7	147,995.8	145,703.9	132,686.9	140,022.2	141,998.6	148,201.0
Capital	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0
General Reserve	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0
Reserve for Contingencies	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Treasury Accounts	8,884.4	7,186.7	9,904.4	10,886.4	11,011.5	7,169.3	6,304.6	5,422.4	6,705.5	10,378.5
Accounts for Public Enterprises*	29,198.3	29,274.0	27,684.7	27,594.9	24,927.8	27,464.0	27,208.3	29,130.6	28,309.0	23,766.8
Accounts for Commercial Banks	68,896.7	68,912.8	67,752.8	66,670.4	63,869.8	62,186.4	48,662.1	41,986.4	55,066.2	64,748.3
Accounts for Specialized Banks**	10,554.9	10,546.9	10,545.1	10,563.4	10,525.9	10,532.0	10,471.7	10,497.8	1,573.6	1,686.0
Accounts for Foreign Banks	1,009.8	1,118.8	1,014.9	999.3	978.0	913.4	1,574.8	757.9	529.8	266.4
Other Accounts	5,519.6	5,510.9	6,245.9	5,236.6	5,378.8	5,521.3	6,334.4	20,591.7	19,827.2	19,592.8
Provisions, Reserves and other Liabilities	32,509.2	32,736.5	31,965.0	32,119.7	29,804.0	30,417.5	30,631.0	30,135.4	28,487.3	26,262.2
Currency Issued:	35,388.7	35,317.3	34,589.6	33,825.2	32,494.3	31,404.8	27,701.8	23,751.9	18,795.2	15,043.2
Currency Outside of C.B.L	35,387.1	35,316.0	34,582.0	33,822.0	32,492.7	31,403.0	27,697.9	23,750.9	18,794.8	15,042.5
Currency in Banking Operations Dpt.	1.6	1.3	7.6	3.2	1.6	1.8	3.9	1.0	0.4	0.7
Total Liabilities	193,461.6	192,103.9	191,202.4	189,395.9	180,490.1	177,108.7	160,388.7	163,774.1	160,793.8	163,244.2
Bills for Collection	86.5	86.3	86.0	85.8	83.8	85.1	88.9	86.6	83.7	80.6

Letters of Credit & Guarantees	6,069.9	6,044.6	5,975.8	5,821.9	6,024.0	6,280.6	6,321.9	7,214.1	7,979.2	9,759.2
Others	0.0	0.0	0.0	0.0	39.9	273.4	349.2	472.5	580.1	893.5

Source: Central Bank of Libya, Department of Research and Statistical, Economic Bulletin, Volume(58),Q-3,2018.

*Includes Public Enterprise demand deposits.

**Includes Deposits of the Libyan Fund for Development & Investment.

Table (4-4): Showing Assets & Liabilities of Central Bank of Libya (Banking Operations In Millions of LD).

Foreign Assets			Domestic Assets						End of	
Portfolio Investment	Shares in International Organizations other Foreign & Assets	Foreign Currencies	Fixed & other Assets	Public Treasury Bills & Securities	Credit Facilities					Cash in Vault
					Others	Comm.	Public	Treasury		
1,469.1	1,052.2	90,084.3	5,369.0	0.0	24.3	52.9	3,400.4	0.0	0.3	2007
2,843.0	5,266.5	105,713.8	4,162.7	0.0	29.7	52.2	2,343.5	0.0	0.5	2008
2,594.5	4,262.4	113,131.4	7,763.6	0.0	30.5	51.9	969.0	0.0	1.2	2009
30,420.5	6,300.9	89,292.2	9,616.3	0.0	32.6	0.1	623.6	0.0	1.3	2010
24,430.8	6,234.1	92,712.8	10,209.8	0.0	32.1	0.0	407.9	2,023.6	0.2	2011
20,254.1	8,567.7	113,170.6	10,688.6	0.0	33.7	0.0	392.2	0.0	0.6	2012
18,252.4	11,119.4	107,442.3	11,096.8	0.0	29.8	0.0	259.6	0.0	0.7	2013
18,118.6	11,394.6	78,325.9	11,320.8	0.0	28.4	0.0	1,098.8	21,711.1	0.4	2014
17,306.1	11,468.8	57,922.8	11,425.1	0.0	30.0	0.0	985.8	40,882.7	1.0	2015

2,434.5	11,827.1	60,383.9	11,441.6	0.0	36.6	0.0	0.0	46,559.3	3.9	2016
2,349.3	10,604.8	63,466.7	11,396.9	0.0	35.0	0.0	0.0	57,849.4	1.8	2017
										2018
2,314.8	10,670.7	65,563.1	11,433.7	0.0	34.2	0.0	77.5	57,900.2	1.6	Q1
2,367.7	10,307.4	68,851.1	11,635.1	0.0	33.3	0.0	100.6	62,272.3	3.2	Q2
2,372.6	10,219.7	69,118.8	11,630.7	0.0	32.9	0.0	119.7	63,110.8	7.6	2018.07.31
2,375.1	10,222.6	69,288.5	11,625.5	0.0	32.6	0.0	120.2	63,120.8	1.3	2018.08.31
2,382.3	10,212.9	70,529.3	11,671.4	0.0	32.3	0.0	120.2	63,122.8	1.6	2018.09.30

Source: Central Bank of Libya, Department of Research and Statistical, Economic Bulletin, Volume(58),Q-3,2018.

Table (4-5): Showing Assets & Liabilities of Central Bank of Libya (Banking Operations In Millions of LD) Cont.

Contra Accounts	Grand Total	Liabilities							Equity			End of
		Provisions, & Reserves Other Liabilities	Deposits						Reserves for contingencies	General Reserves	Capital	
			Other Accounts	Banks Abroad	Specialized Banks	Comm. Bank's Accounts	Public Enterprise s Accounts	Treasury Accounts				
8,199.4	101,452.5	17,337.4	1,905.2	15.5	469.3	18,449.2	39,120.2	23,155.7	0.0	500.0	500.0	2007
9,066.9	120,411.9	15,834.9	386.8	25.0	627.9	32,382.4	39,885.3	30,020.3	0.0	749.3	500.0	2008
9,112.0	128,804.5	19,316.2	499.0	118.1	2,753.4	38,352.6	41,143.5	25,212.6	0.0	909.1	500.0	2009
11,190.2	136,287.4	19,860.3	740.5	323.1	11,085.2	44,009.4	21,300.7	37,559.1	0.0	909.1	500.0	2010
9,986.9	136,051.3	22,603.5	1,299.9	202.7	9,771.3	53,272.6	15,081.6	32,410.6	0.0	909.1	500.0	2011
10,232.3	153,107.7	23,551.7	20,356.8	259.3	10,012.5	53,606.5	23,110.3	20,710.6	0.0	1,000.0	500.0	2012
10,733.3	148,201.0	26,262.2	19,592.8	266.4	1,686.0	64,748.3	23,766.8	10,378.5	0.0	500.0	1,000.0	2013
8,643.0	141,998.6	28,487.3	19,827.2	529.8	1,573.6	55,066.2	28,309.0	6,705.5	0.0	500.0	1,000.0	2014
7,773.2	140,022.2	30,135.5	20,591.7	757.9	10,497.8	41,986.4	29,130.6	5,422.4	0.0	500.0	1,000.0	2015
6,760.0	132,686.9	30,631.0	6,334.4	1,574.8	10,471.7	48,662.1	27,208.3	6,304.6	0.0	500.0	1,000.0	2016

6,639.1	145,703.9	30,417.5	5,521.3	913.4	10,532.0	62,186.4	27,464.0	7,169.3	0.0	500.0	1,000.0	2017
												2018
6,147.7	147,995.8	29,804.0	5,378.8	978.0	10,525.9	63,869.8	24,927.8	11,011.5	0.0	500.0	1,000.0	Q1
5,907.7	155,570.7	32,119.7	5,236.6	999.3	10,563.4	66,670.4	27,594.9	10,886.4	0.0	500.0	1,000.0	Q2
6,324.4	156,612.8	31,965.0	6,245.9	1,014.9	10,545.1	67,752.8	27,684.7	9,904.4	0.0	500.0	1,000.0	2018.07.31
6,130.9	156,786.6	32,736.5	5,510.9	1,118.8	10,546.9	68,912.8	29,274.0	7,186.7	0.0	500.0	1,000.0	2018.08.31
6,156.4	158,072.8	32,509.1	5,519.6	1,009.8	10,554.9	68,896.7	29,198.3	8,884.4	0.0	500.0	1,000.0	2018.09.30

Source: Central Bank of Libya, Department of Research and Statistical, Economic Bulletin, Volume(58),Q-3,2018.

* Includes Deposits of the Libyan Fund for Development & Investment.

Table (4-6): Showing Assets & Liabilities of Central Bank of Libya (Banking Operations In Millions of LYD) Cont.

Liabilities			Total Assets = total Liabilities	Assets				End of
Currency with public	Currency with Comm. Banks	Currency with Banking Operations		Foreign Treasury Bills Securities &	Monetary Gold	Balances in Convertible	Public Treasury & Bills	
4,581.2	370.9	0.3	4,952.4	-	57.8	4,894.6	0.0	2007
5,608.3	374.4	0.5	5,983.2	250.3	57.8	5,675.1	0.0	2008
6,962.9	512.0	1.2	7,476.1	198.5	57.8	7,219.8	0.0	2009
7,609.0	847.1	1.3	8,457.4	197.2	57.8	8,202.4	0.0	2010
14,840.1	864.6	0.2	15,704.9	68.5	46.9	15,589.5	0.0	2011
13,391.1	1,433.3	0.6	14,825.0	3,831.9	46.9	10,946.2	0.0	2012
13,419.9	1,622.6	0.6	15,043.2	3,517.1	46.9	11,479.2	0.0	2013
17,174.9	1,619.9	0.4	18,795.2	8,061.1	46.9	10,687.2	0.0	2014
23,007.3	743.6	1.0	23,751.9	6,194.7	46.9	17,510.3	0.0	2015
27,103.2	594.7	3.9	27,701.8	5,175.0	46.9	22,479.9	0.0	2016
30,865.2	537.8	1.8	31,404.8	8,042.8	46.9	23,315.1	0.0	2017
								2018
31,781.1	711.6	1.6	32,494.3	11,680.3	46.9	20,767.1	0.0	Q1
32,964.1	858.0	3.2	33,825.3	13,005.0	46.9	20,773.4	0.0	Q2

33,635.0	947.0	7.6	34,589.6	14,395.0	46.9	20,147.7	0.0	2018.07.31
34,720.7	595.3	1.3	35,317.3	15,610.3	46.9	19,660.1	0.0	2018.08.31
34,827.5	559.6	1.6	35,388.7	15,753.1	46.9	19,588.7	0.0	2018.09.30

Source: Central Bank of Libya, Department of Research and Statistical, Economic Bulletin, Volume(58),Q-3,2018.

*Includes balances with banks abroad (time deposits).

Table (4-7): Showing the development of the required cash reserve and the excess reserve at commercial banks during the period from 1985 to 2005 (in MD).

Year	Total Banking Deposits		Required Cash Reserve		Actual Cash Reserve (Actual Deposits at CBL)		Excess Cash Reserve	
	Value	Growth Rate %	Value	Growth Rate %	Value	Growth Rate %	Value	Growth Rate %
1985	3424.2	-	449.6	-	613.5	-	163.9	-
1986	3649.0	6.6	478.2	6.4	568.2	7.4 -	90.0	45.1 -
1987	3737.9	2.4	491.3	2.7	570.3	0.4	79.0	12.2 -
1988	3502.8	6.3 -	455.9	7.2 -	547.2	4.1 -	91.3	15.6
1989	3472.0	0.9 -	446.0	2.2 -	573.0	4.7	127.0	39.1
1990	3321.4	4.3 -	432.4	3-	1036.6	80.9	604.2	375.7
1991	3565.9	7.4	460.8	6.6	1178.6	13.7	717.8	18.8
1992	4173.0	17	538.8	16.9	1726.6	46.5	1187.8	65.5
1993	4301.8	3.1	548.2	1.7	1437.0	16.8 -	888.8	25.2 -
1994	5035.9	17.1	649.4	18.5	2088.7	45.4	1439.3	61.9

1995	5503.1	9.3	693.0	6.7	2237.5	7.1	1544.5	7.3
1996	5879.0	6.8	732.6	5.7	2519.6	12.6	1787.0	15.7
1997	6039.6	2.7	751.2	2.5	2629.0	4.3	1877.8	5.1
1998	6577.8	8.9	807.0	7.4	2712.1	3.2	1905.1	1.5
1999	7117.8	8.2	875.1	8.4	2341.9	13.6 -	1466.8	23 -
2000	7463.0	4.8	917.8	4.9	2241.7	4.3 -	1323.9	9.7 -
2001	8386.2	12.4	10139	10.5	2232.8	0.4 -	1218.9	7.9 -
2002	8707.8	3.8	1088.3	7.3	2337.7	4.7	1249.4	2.5
2003	9567.2	9.9	1177.2	8.2	3089.1	32.1	1911.9	53
2004	11278.7	17.9	1422.1	20.8	6079.4	96.8	4657.3	143.6
2005	14263.6	26.5	1809.0	27.2	8874.9	46	7065.9	51.7
Growth Rate Average		7.3 %		7.1 %		16.8 %		34.9 %

Source:

1- CBL, Economic Reports, Different Figures

2- CBL, Economic Bulletins, Different Figures

Table (4-9): Showing Assets and Liabilities of Commercial Banks of Libya (In Millions of LYD).

Assets									
Treasury Bills & Securities	Balances with Banks Abroad	Liquid Assets **	Foreign Currency (6)	Deposits				Cash in Vault (1)	End of
				Time Deposits		Demand Deposits			
				With Banks (5)	With Central Bank of Libya * (4)	With Banks (3)	With Central Bank of Libya (2)		
0.0	2,420.1	18,782.9	36.5	24.0	13,177.7	203.1	4,970.7	370.9	2007
0.0	3,514.6	33,393.7	38.4	394.4	19,538.6	116.4	12,931.5	374.4	2008
0.0	4,109.8	39,454.3	82.7	100.0	25,619.3	191.8	12,948.5	512.0	2009
0.0	3,544.4	44,987.3	35.5	0.0	30,686.0	167.2	13,251.5	847.1	2010
0.0	4,236.5	47,513.2	248.5	90.0	27,339.7	241.7	18,728.7	864.6	2011
0.0	3,517.3	54,816.2	112.7	0.0	35,737.8	329.0	17,203.4	1,433.3	2012
0.0	4,045.1	65,761.8	89.7	30.0	44,307.3	347.6	19,364.6	1,622.6	2013

0.0	5,443.4	58,443.4	22.9	0.0	37,074.6	408.2	19,317.8	1,619.9	2014
1,000.0	6,699.5	47,593.3	9.2	0.0	24,259.7	1,717.6	20,863.2	743.6	2015
1,000.0	6,749.4	56,163.5	11.7	0.0	23,187.1	1,742.4	30,627.6	594.7	2016
500.0	3,698.4	81,111.4	9.4	0.0	26,415.7	1,012.5	53,136.0	537.8	2017
									2018
500.0	3,532.5	83,098.9	9.6	0.0	26,317.6	1,552.4	54,507.7	711.6	Q1
500.0	3,875.5	89,092.4	19.8	0.0	26,068.4	1,111.3	61,034.9	858.0	Q2
500.0	4,138.7	90,074.3	15.4	0.0	28,930.7	1,147.4	59,033.8	947.0	2018.07.31
500.0	4,239.2	90,752.5	12.6	0.0	28,534.9	846.2	60,764.6	594.2	2018.08.31
500.0	4,198.2	91,413.3	13.1	0.0	28,533.5	869.4	61,437.7	559.6	2018.09.30

Source:

Central Bank of Libya, Department of Research and Statistical, Economic Bulletin, Volume (58),Q-3,2018.*Represent CDs since 2008.

**Liquid Assets (1+2+3+4+5+6).

**Table (4-10): Showing Assets and Liabilities of Commercial Banks
of Libya (In Millions of LD).**

Assets								End of
Contra Accounts	Total Assets = Liabilities	Other Assets	Fixed Assets	Credit				
				Total Credit	Other Loans	Discounted and Negotiated Bills	Loans & Overdrafts *	
8,945.6	31,185.3	1,254.9	536.1	8,191.3	88.5	1.3	8,101.5	2007
23,089.4	50,230.0	2,062.7	714.4	10,544.6	101.3	6.3	10,437.0	2008
37,495.6	58,767.8	2,493.2	897.8	11,812.7	87.6	206.7	11,518.4	2009
62,367.0	65,352.4	2,757.7	1,018.4	13,044.6	298.9	260.4	12,485.3	2010
65,920.3	70,938.1	5,367.8	1,034.0	12,786.6	155.4	255.6	12,375.6	2011
70,747.7	84,420.4	9,149.0	1,038.4	15,899.5	287.6	246.5	15,365.4	2012
71,550.9	98,375.5	9,214.7	1,121.6	18,232.3	184.0	250.0	17,798.3	2013
51,845.0	95,204.2	10,145.9	1,211.6	19,959.9	708.3	244.5	19,007.1	2014

48,299.2	90,233.4	13,362.4	1,365.4	20,212.9	976.9	249.1	18,986.9	2015
46,800.0	103,455.1	19,362.8	1,409.1	18,770.3	861.4	235.1	17,673.8	2016
46,534.9	116,477.0	12,257.4	1,463.2	17,446.7	737.5	206.0	16,503.2	2017
								2018
46,760.9	118,043.1	12,187.8	1,494.7	17,229.2	626.9	170.0	16,432.3	Q1
47,166.3	124,867.0	13,137.4	1,519.6	16,742.1	642.4	194.3	15,905.4	Q2
46,380.7	125,782.6	12,742.6	1,526.4	16,800.6	665.7	189.6	15,945.3	2018.07.31
44,290.8	127,103.9	13,377.2	1,529.7	16,705.2	671.8	182.6	15,850.9	2018.08.31
45,717.7	127,524.8	13,376.8	1,532.6	16,503.9	669.7	181.3	15,652.9	2018.09.30

Source:

Central Bank of Libya, Department of Research and Statistical, Economic Bulletin, Volume(58),Q-3,2018.

*Includes Commercial & Housing Loans.

Table (4-11): Showing Assets and Liabilities of Commercial Banks of Libya (In Millions of LD).

Liabilities						Equity					End of
Contra Accounts	Other Liabilities	Borrowing from Banks			Deposits Total Deposits	Saving	Time * *	Demand *	Reserves	Capital	
		Banks Abroad	Banks in Libya	Central Bank of Libya							
8,945.6	4,576.4	19.0	51.5	53.0	24,805.5	649.3	6,409.9	17,746.3	707.0	972.8	2007
23,089.4	6,270.3	175.1	57.1	52.2	41,531.0	689.2	11,046.3	29,795.5	1,022.8	1,121.6	2008
37,495.6	6,198.3	135.6	52.4	51.9	48,672.6	715.0	12,100.1	35,857.5	1,034.1	2,623.0	2009
62,367.0	5,392.2	81.8	47.6	0.0	55,313.0	743.1	12,231.8	42,338.1	1,166.6	3,351.2	2010
65,920.3	7,755.0	290.8	47.0	0.0	58,480.1	683.9	11,419.8	46,376.4	1,012.3	3,352.9	2011
70,747.7	11,235.6	139.6	45.7	0.0	68,346.2	705.3	12,912.1	54,728.8	1,158.1	3,495.2	2012
65,920.3	9,950.5	74.9	43.7	0.0	83,562.7	662.9	21,064.9	61,834.9	1,193.5	3,550.2	2013

51,845.0	10,933.2	432.0	42.4	0.0	78,910.5	599.8	21,669.3	56,641.3	1,319.6	3,566.8	2014
48,299.2	12,892.1	955.6	41.1	0.0	71,257.1	574.5	11,956.7	58,725.9	1,478.0	3,609.5	2015
46,800.0	14,211.4	429.9	39.8	0.0	83,407.6	570.2	10,644.7	72,192.7	1,575.0	3,791.4	2016
46,534.9	14,569.4	368.5	39.1	0.0	95,938.5	591.7	10,519.2	84,827.6	1,755.1	3,806.4	2017
											2018
46,760.9	15,290.3	335.3	39.1	0.0	96,752.6	596.1	11,321.1	84,835.4	1,819.4	3,806.4	Q1
47,166.3	14,588.4	373.6	52.1	0.0	103,794.3	597.4	12,107.9	91,089.0	2,252.2	3,806.4	Q2
46,380.7	15,086.6	374.2	52.1	0.0	104,123.1	596.5	11,998.6	91,528.0	2,340.2	3,806.4	2018.07.31
44,290.8	13,926.2	545.4	52.1	0.0	106,440.8	605.4	11,988.9	93,846.5	2,333.1	3,806.4	2018.08.31
45,717.7	14,618.8	339.5	52.1	0.0	106,408.7	590.4	11,854.1	93,964.2	2,299.3	3,806.4	2018.09.30

Source: Central Bank of Libya, Department of Research and Statistical, Economic Bulletin, Volume(58),Q-3,2018.

*Includes Payment Orders since 2001.

**Includes margins for L/C & L/ Guarantees.

Table (12): Showing Foreign Assets & Liabilities of Commercial Banks (In Millions of LYD).

Liabilities				Assets						End of
Total	Others	Foreign Liabilities with Banks Abroad	Credit of Banks Abroad	Total	Others	Bills in Foreign Currency & Advances at Banks Abroad	Deposits with Banks Abroad	Foreign Currency Deposits with Central Bank of Libya	Foreign Currency	
19.4	0.0	0.4	19.0	2,515.1	0.0	0.2	2,420.0	58.4	36.5	2007
131.9	0.0	1.2	130.7	3,705.0	622.6	0.0	3,005.6	37.1	39.7	2008
143.3	0.0	7.6	135.6	4,231.7	20.9	0.0	4,109.8	18.3	82.7	2009
119.4	34.0	3.7	81.8	3,580.4	0.5	0.0	3,544.4	0.0	35.5	2010
333.1	36.4	5.9	290.8	4,485.5	0.4	0.0	4,236.5	0.0	248.5	2011
189.6	46.0	3.9	139.6	3,630.4	0.5	0.0	3,517.3	0.0	112.7	2012
157.6	81.0	1.7	74.9	4,135.1	0.4	0.0	4,045.1	0.0	89.7	2013
493.9	60.4	1.5	432.0	5,466.7	0.4	0.0	5,443.4	0.0	22.9	2014
1,012.3	52.9	3.8	955.6	6,709.2	0.4	0.0	6,699.5	0.0	9.2	2015
487.4	51.5	6.1	429.9	6,761.5	0.4	0.0	6,749.4	0.0	11.7	2016

426.5	53.2	4.8	368.5	3,708.2	0.4	0.0	3,698.4	0.0	9.4	2017
										2018
399.4	54.6	9.6	335.2	3,544.3	0.4	0.0	3,534.4	0.0	9.6	Q1
433.3	57.0	2.8	373.5	3,895.8	0.4	0.0	3,875.6	0.0	19.8	Q2
433.6	58.0	1.3	374.3	4,154.5	0.4	0.0	4,138.7	0.0	15.4	2018.07.31
606.0	58.9	1.7	545.4	4,244.1	0.4	0.0	4,231.1	0.0	12.6	2018.08.31
400.3	58.8	2.1	339.4	4,211.3	0.4	0.0	4,197.8	0.0	13.1	2018.09.30

Source: Central Bank of Libya, Department of Research and Statistical, Economic Bulletin, Volume(58),Q-3,2018.

Table (4-13) Showing the assets of local Libyan commercial banks (ranked per size) at the first half of 2013 (Million Dollar).

	Assets	Deposits	Credits
Jumhouria Bank	24,928.5	21,806.46	5,853.3
National Commercial Bank	13,472.4	9,910.38	2,612.9
Sahara Bank	9,057.3	7,450.48	1,465.2
Wahda Bank	8,719.0	7,010.05	1,679.2
Bank of Commerce& Development	3,655.7	3,285.37	379.5
North Africa Bank	1,939.7	1,270.60	643.2
Aman Bank for commerce and investment	1,130.4	941.25	67.7
Waha Bank	936.2	738.98	108.9
AlejmaaAlarabi Bank	595.8	487.63	119.6
First Gulf Libyan Bank	531.1	296.28	22.4
The United Bank for Commerce and Investment	330.8	226.22	75.3

Wafaa Bank	171.6	106.28	70.5
Mediterranean Bank	128.9	95.12	25.7
Arab Commercial Bank	118.7	81.93	22.7
Sari Bank for Commerce and Investment	114.0	78.00	34.2
Total	65,830.0	53,785.01	13,180.3

Source: Central Bank of Libya(except for Libyan Foreign Bank).

Table (4-14): Contributions of Libyan Foreign Bank in banks and institutions around the world.

Africa	
Chad	Shari Commercial Bank
Zimbabwe	Zimbabwe Commercial Bank Limited
Togo	Banking Company across Africa
Mali	Sahel Commercial Bank

Egypt	Arab International Bank Suez Canal Bank
Mauritania	Chinguetti Bank
Algeria	Maghreb Bank For investment and foreign trade
Libya	libyan Exchange and Financial Services Company Oil Investment Company Libyan Italian Company Highways Services Company Company of Libyan Center for Medical Center Libyan Company for Investments and Operation of Sanitations.
Burkina Faso	Burkina Commercial Bank
Tunis	Tunisian Libyan Bank Alubaf International Bank North Africa International Bank SociétéTunisienne de Banque

Uganda	Tropical Bank
Niger	Niger Commercial Bank
In Asian Content	
United Arab Emirates	Arab Bank for investment and foreign trade Arab Trade Financing Program
Hong Kong	Ufaf Hong Kong Limited
Bahrain	AlubafArab International Bank Arab Banking Institutions
Lebanon	North Africa commercial Bank
Jordon	Arab Jordan Investment Bank Housing Bank for trade and Financing
Turkey	Arab Turkish Bank
Europe	
United Kingdom	British Arab Commercial Bank

Spain	Arab Spanish Bank
Italy	UBAE Arab Italian Bank
France	Ufaf Bank Banque BIA Paris
Netherlands	Oil Investment Company
Luxemburg	IRO finance company
America	
Mexico	Caribbean Barmotor Dell Company
Curacao	Curacao Ufaf

Source: Libyan Foreign Bank website.

Table (4-15): Showing Assets and Liabilities of the Libyan Foreign Bank (in Thousands of LD).

Total of assets	Assets							End of
	Non Current Assets				Current Assets			
	Fixed assets	Other noncurrent assets	Participations	Investments & loans	Short-term facilities	Time deposit with banks *	Cash and balances with banks	
21,721.0	3.5	110.2	935.5	4,601.9	86.6	15,682.7	300.6	2007
20,812.1	15.8	83.8	1,508.4	3,338.9	70.9	13,315.5	2,478.8	2008
16,313.9	14.5	12.3	1,781.3	2,931.0	24.3	11,285.5	265.0	2009
19,884.6	15.1	20.1	2,269.3	3,006.7	22.8	14,142.5	408.1	2010
20,435.6	14.2	84.7	2,466.3	2,963.4	22.2	10,124.1	4,760.7	2011
25,147.8	13.6	19.1	2,523.5	2,550.2	30.5	16,493.3	3,517.6	2012
32,638.3	14.3	62.5	2,559.7	3,237.7	1,088.1	22,003.7	3,672.3	2013
30,867.5	15.0	91.7	2,727.7	4,126.4	1,108.0	19,189.5	3,608.9	2014
26,277.4	15.2	245.0	2,708.7	3,546.3	744.0	16,343.0	2,675.0	2015

27,957.4	15.1	367.1	2,895.1	3,640.0	944.8	17,508.6	2,586.7	2016
27,370.5	13.8	309.1	2,873.1	3,610.6	967.6	15,858.0	3,738.3	2017
								2018
24,520.9	13.4	325.3	2,816.5	3,570.9	971.9	13,587.1	3,235.8	Q1
24,806.6	13.8	348.3	2,950.2	3,547.8	967.8	12,989.4	3,989.3	Q2
24,321.0	13.8	355.1	2,948.5	3,558.0	972.4	12,310.2	4,162.9	2018.07.31
23,849.5	13.7	360.6	2,952.1	3,571.1	800.0	11,928.8	4,223.1	2018.08.31
25,515.5	13.8	358.0	2,965.4	3,583.2	965.0	12,774.8	4,855.3	2018.09.30

Source :

Libyan Foreign Bank. And Central Bank of Libya, Department of Research and Statistical, Economic Bulletin, Volume(58),Q-3,2018.

Includes deposits of the Libyan fund for Development and investment (Dec 2013 - Nov 2015).

Table (4-16): Showing Assets and Liabilities of the Libyan Foreign Bank (in Thousands of LYD).

Total of Liabilities	Liabilities					End of
	Capital & Reserves	Non-Current Liabilities	Current Liabilities ⁵			
			Other Current Liabilities	Time Deposits *	Demand Deposits	
21,721.0	1,915.3	624.0	217.0	16,494.9	2,469.8	2007
20,812.1	2,018.8	1,095.4	145.5	10,353.9	7,198.5	2008
16,313.9	3,355.7	227.7	126.1	7,161.4	5,443.0	2009
19,884.6	4,730.5	313.6	78.9	8,490.3	6,271.3	2010
20,435.6	4,856.1	755.8	60.5	7,031.9	7,731.3	2011
25,147.8	5,128.2	325.1	77.3	11,811.9	7,805.3	2012
32,638.3	5,424.6	206.4	97.2	20,173.0	6,737.1	2013
30,867.5	5,993.2	352.1	127.3	16,370.8	8,024.0	2014
26,277.4	6,438.4	275.6	46.2	10,564.7	8,952.4	2015
27,957.5	7,008.3	324.4	94.2	13,094.8	7,435.8	2016
27,370.5	6,803.5	402.8	63.7	12,354.6	7,745.9	2017
						2018
24,520.9	6,735.0	414.7	60.6	10,870.2	6,440.3	Q1
24,806.6	7,096.3	459.3	45.7	10,133.6	7,071.7	Q2
24,321.0	7,133.7	473.3	45.7	9,458.8	7,209.4	2018.07.31
23,849.5	7,164.8	469.5	45.7	9,220.4	6,949.1	2018.08.31
25,515.5	7,227.9	454.9	30.6	9,129.1	8,672.9	2018.09.30

Source :

Libyan Foreign Bank. And Central Bank of Libya, Department of Research and Statistical, Economic Bulletin, Volume (58),Q-3,2018.

*Includes deposits of the Libyan fund for Development and investment (December 2013 - November 2015).

Table (4-17): Showing Development Bank Loans by Economic Activities (On Annual Basis during 1995-2015)

In Thousands of LD.

Total	Others	Industrial services	Furniture Industries	Textile Industries	Metal Works	Chemical and Plastics	Building Material	Food Industries	Year
1,490.5	288.0	501.0	-	350.4	-	-	301.1	50.0	1995
8,040.9	27.9	5,780.7	-	1,314.2	521.7	82.1	248.4	65.9	1996
27,081.7	910.7	2,618.7	762.9	4,546.2	5,607.9	4,801.7	2,766.9	5,066.7	1997
2,531.6	0.1	953.6	-	854.9	288.1	-	112.5	322.4	1998
3,583.4	88.0	882.3	5.0	461.0	394.6	378.4	304.7	1,069.4	1999
20,721.8	1,408.7	2,526.3	814.4	344.2	4,024.0	5,008.0	2,445.5	4,150.7	2000
31,704.2	8,841.7	5,456.6	730.5	1,271.4	1,862.2	6,693.7	2,053.3	4,794.8	2001
69,166.6	10,282.3	17,116.1	270.1	228.7	10,023.7	18,763.3	5,113.8	7,368.6	2002
77,825.7	7,800.3	16,707.6	1,130.1	844.7	10,053.2	13,695.8	10,865.0	16,729.0	2003
36,022.8	4,392.8	7,147.3	306.7	233.9	2,185.5	4,059.0	6,543.1	11,154.5	2004
254,408.0	7,978.5	196,685.7	8,377.6	173.9	3,240.9	8,569.0	18,604.1	10,778.3	2005

177,476.3	52,645.5	12,976.3	2,493.4	2,480.0	6,837.2	14,823.4	59,518.9	25,701.6	2006
221,939.9	41,650.9	6,858.3	0.0	490.0	5,969.9	7,843.4	129,949.2	29,178.2	2007
60,968.5	12,016.4	1,356.4	808.6	607.1	290.9	358.2	40,820.3	4,710.6	2008
86,784.7	5,788.1	5,260.7	1,402.2	0.0	1,289.4	1,218.3	65,793.0	6,033.0	2009
89,470.3	20,014.6	1,770.9	780.6	1,230.0	808.7	1,421.0	58,967.6	4,476.9	2010
121,115.2	112,317.8	60.0	-	-	-	150.0	8,297.9	289.5	2011
51,436.4	15,617.3	454.5	-	-	-	1,076.0	31,926.4	2,362.2	2012
25,428.9	10,381.5	-	202.5	237.0	274.0	4,499.7	9,414.2	420.0	2013
28,319.2	5,565.0	-	-	-	-	50.0	20,613.9	2,090.3	2014
2,737.2	2,287.2	-	-	-	-	-	450.0	-	2015

Source: Development Bank And Central Bank of Libya, Department of Research and Statistical, Economic Bulletin, Volume(58),Q-3,2018.

Table (4-25): Showing Libyan different government income (GDP) resources during period 2008 – 2014.

Economic Sector	2008	2009	2010	2011	2012	2013*	2014*
Agriculture, hunting, forestry and fishing	613.9	678.8	724.7	572.4	744.8	-	-
Crude oil and natural gas extraction	78,617.0	45,438.8	66,476.8	29,367.0	84,411.1	-	-
Mining and quarrying	274.4	301.0	324.4	108.1	160.8	-	-
Manufacturing	5,011.3	4,299.1	4,463.0	1,163.0	3,795.7	-	-
Electricity, gas and water supplies	1,017.7	1,105.2	1,157.0	393.6	1,168.2	-	-
Constructions	3,642.6	5,332.2	5,676.5	1,110.0	1,221.8	-	-
Wholesale and retail trade, vehicle repair and merchandise	3,140.9	2,738.7	2,968.3	1,694.6	3,473.7	-	-
Hotels and restaurants	133.2	144.3	154.2	135.8	123.1	-	-
Transport, storage and communications	717.8	915.3	983.2	750.1	978	-	-
Financial intermediaries	3,810.6	3,981.2	4,253.5	2,499.1	3,595.3	-	-
Real estate, rentals and businesses	216	231.3	249.4	167.9	224.4	-	-

General management, defense and compulsory social security	5,592.1	5,305.4	5,504.6	9,522.5	11,859.6	-	-
Education	417.1	695.3	734.8	268.7	586.8	-	-
Health and social work	294.9	457.2	486.1	339.3	447.4	-	-
Other community and personal services	2,385.3	2,590.0	2,794.9	1,805.5	3,158.4	-	-
Financial services indirectly measured (-)	-3,641.6	-3,720.4	-3,972.9	-2,348.2	-3,358.1	-	-
GDP at basic prices	102,242.9	70,493.3	92,978.20	47,549.50	112,591.0	79,952.6	43,030.2
Oil and natural gas extraction services and oil products	80,490.7	46,795.7	67,803.5	29,761.7	85,670.1	57,970.4	24,299.4
Other economic activities	21,752.2	23,697.6	25,174.8	17,787.8	26,921.0	21,982.1	18,530.8
Product and import taxes	657.9	1,087.2	1,505.7	274.3	427.5	-	-
Subsidiary	12,556.2	7,891.4	7,108.9	8,652.7	12,391.3	-	-
Subsidiary-free taxes	-11,898.3	-6,804.2	-5,603.2	-8,378.4	-11,963.8	-13,958.1	-12,159.2
GDP at market prices	90,342.8	63,689.1	87,375.0	39,171.1	100,627.3	65,994.5	30,871.0

Source: <http://www.eanlibya.com/Archives>