



University of Huddersfield Repository

Mohamed, Mohamed Ali

Diversification Prospects for Sustainable Libyan Econmoic Growth

Original Citation

Mohamed, Mohamed Ali (2014) Diversification Prospects for Sustainable Libyan Econmoic Growth. Doctoral thesis, University of Huddersfield.

This version is available at <http://eprints.hud.ac.uk/id/eprint/20337/>

The University Repository is a digital collection of the research output of the University, available on Open Access. Copyright and Moral Rights for the items on this site are retained by the individual author and/or other copyright owners. Users may access full items free of charge; copies of full text items generally can be reproduced, displayed or performed and given to third parties in any format or medium for personal research or study, educational or not-for-profit purposes without prior permission or charge, provided:

- The authors, title and full bibliographic details is credited in any copy;
- A hyperlink and/or URL is included for the original metadata page; and
- The content is not changed in any way.

For more information, including our policy and submission procedure, please contact the Repository Team at: E.mailbox@hud.ac.uk.

<http://eprints.hud.ac.uk/>

Diversification Prospects for Sustainable Libyan Economic Growth

By

MOHAMED ALI MOHAMED

**The Business School, University of Huddersfield
Submitted in Partial Fulfilment of the Requirements of the
Degree of Doctor of Philosophy**

(2014)

Declaration

© Mohamed Ali Mohamed

I declare that this PhD thesis is substantially my own original work and has not been submitted in any form for an award at any other academic institution. Where material has been drawn from other sources, this has been fully acknowledged.

Signature Mohamed

Date..... 2014.....

Dedication

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

”وَفَوْقَ كُلِّ ذِي عِلْمٍ عَلِيهِ“

"يوسف الآية" 76

All praise goes to Allah Ta'ala, The Most Gracious and The Most Merciful. Thanks to the Almighty for his blessings and mercies and for seeing me through to accomplishing another milestone of greater height in my life.

To my parents, great Mother (Mabruka) for her prayers, and Father (Ali) whom always supported me, lighted up my life since my birth to this great moment, educated me for unconditional. I would like to convey my sincere pleasure to my brothers and sisters, for their kind efforts, moral support, inspiration and endless encouragement to pursue my interests. To my family, lovely kids, (Easra & Imadadeen), who are all my life, and my wonderful wife (Maryam) who has been there for me all the time during my study and great support as she has pull out all her capacity to successfully make my dream come true to study abroad, and kept supporting me during all the years I have been through.

God bless them all.

Acknowledgements

I was assisted and supported by a number of people whom I am greatly indebted to, where in this opportunity, I would like to express my sincere gratitude.

First of all, I wish to express my deep thanks and gratitude to my main supervisor Dr. Kalim Sudiqqi, and Co-supervisor Mr. John Day, for their friendly assistance, guidance, discussion and criticism that made this study interesting and successful. I am grateful to the staff of the Business School, who gave useful contributions at various times during the development of this thesis.

I also appreciate the staff of National Planning Board, and in particular Dr. Taher Zayed, the deputy dean of Institute of Planning and development in Libya for their moral support during the data collection period.

Mohamed

Table of Contents

	Page
Declaration	i
Dedication.....	ii
Acknowledgements	iii
Table of Contents.....	iv
LIST OF TABLES.....	x
LIST OF ABBREVIATIONS	xiii
Chapter 1 : Introduction.....	1
1.1 Background and Significance of the Study	1
1.2 Research in Context.....	3
1.3 Statement of the Research Problem.....	12
1.4 The Key Research Questions.....	14
1.5 Research Methodology	15
1.6 Summary of the Main Aim and Key Objectives of the Research	18
1.7 The Outline of the Research	19
1.8 Summary.....	22
Chapter 2 : The Theoretical Motive of Economic Diversification	24
2.1 Introduction	24
2.1.1 The “Structuralist”: Prebisch-Singer Thesis.....	25
2.1.2 The Staples Theory: “Staple Trap”.....	32
2.1.3 Portfolio Approach: Reduction of Portfolio “Risk”	38
2.2 Summary of Key Theoretical Findings	41
2.3 Diversification as a Prime Economic Policy Objective	44
2.4 Exhaustible and Non-Renewable of Oil Resource	58
2.4.1 Growth Volatility and Risk Reduction	65
2.5 The Nature of Resource Curse	73
2.6 The Economics of a Rentier State	79

2.7 Chapter Conclusion	84
Chapter 3 : Empirical Literature: Country Evidence	86
3.1 Introduction	86
3.1.1 The United Arab Emirates.....	87
3.2 Malaysia	94
3.2.1 Structure of Malaysian Economy, and Growth Performance.....	96
3.3 Indonesia as a Case Study	101
3.3.1 Structure of the Indonesia Economy	101
3.3.2 Indonesia GDP Growth and Terms of Trade.....	104
3.3.3 Indonesia GDP Growth and Exports Growth.....	105
3.4 The Common Factor of Success in Malaysia and Indonesia.....	109
3.5 Lessons Drawn and their Implications for the Libya Case.....	111
3.6 Conclusion.....	114
Chapter 4 : Oil Dominance and Libyan Economic Performance	115
4.1 Introduction	115
4.2 Oil and Socio-Economic Development Transformation	116
4.3 Libyan Government's Policy of Development.....	118
4.3.1 Economic Development during the Period (1973-1985).....	121
4.4 Economic Planning for the Medium and Long-Term	126
4.5 Economic Policies	131
4.5.1 Fiscal Policy and Hydrocarbon Revenues in the Libyan Economy	134
4.5.2 Public Revenues	136
4.5.3 Public Spending.....	142
4.5.4 Economic and Social Development during the Period (1986-2010).....	147
4.5.5 Public Debt and Deficit Financing	152
4.6 Conclusion.....	159
Chapter 5 : Diversification Trends in the Structure of Libyan Economy.....	160
5.1 Introduction	160
5.2 Economic Diversification in Regional Context.....	163
Interim Conclusion	174

5.3 Estimates the Diversification level in the Structure of Libyan Economy	175
5.3.1 The Herfindahl – Hirschman Scale, (HHI).....	183
5.3.2 Share of Export in Diversification Scope	188
5.3.3 Contribution of Oil and Non-Oil Revenues in the Public Finance.....	192
5.4 Obstacles to Achieve Desired Degree of Diversification.....	199
2- Obstacles Associated with the Economic Policies Pursued.....	203
5.5 Conclusion.....	212
Chapter 6 : Research Methodology	213
6.1 Introduction	213
6.2 Research Philosophy	214
6.3 Research Approach.....	214
6.4 Research Strategy	215
6.5 Research Methodology.....	216
6.5.1 Literature Review	217
6.6 Primary Data.....	219
6.7 Questionnaire Design	219
6.7.1 A Detailed Source of Information by Section	221
6.8 Determining the Population, and Selecting the Sample Size	223
6.9 Survey Questionnaires.....	225
6.10 Gathering Primary Data by Conducting Interviews	227
6.11 Field Implementation.....	228
6.11.1 Pilot Study	230
6.11.2 Interview Validity.....	233
6.12 Qualitative Data Analysis of Content.....	234
6.13 Limitations of the Field Study.....	235
6.14 Conclusion.....	236
Chapter 7 : Data Result and Analysis.....	237
7.1 Introduction	237
7.1.1 Part One: Demographic Details (General Characteristics).....	239
7.1.2 Part Two: Oil Dependency, Degree of Susceptible to Certain Factors;	244

7.1.3 Part Three: Perceptions on the Actual Economic Performance of Non-Oil.	251
7.1.4 Part Four: Libya's Economic Diversification Prospects for Sustainability..	257
7.1.5 Part Five: Promoting Sustainable Economic Growth to reduce the level of Unemployment	259
7.1.6 Summary of Key Findings from the Questionnaires Survey.....	264
7.2 Factors Enhancing Economic Diversification	270
7.2.1 Simple Correlation Matrix.....	271
7.2.2 Result of Logistic Regression Model	274
7.3 In-Depth Interview Data Results using a Content Analysis	279
7.3.1 Theme One: Libya is Oil Rich Country, but Development Policies Targeting Diversification Remains as Long Term Objective.	281
7.3.2 Theme Two: Revenues Derived from Oil have not efficiently been Allocated, which Inhibits Diversification.	283
7.3.3 Theme Three: Libya's Wealth is Largely Dependent on the Oil Sector, and other Potential Non-Oil sectors are Inadequately Developed.	286
7.3.4 Theme Four: Despite the High availability of Resources, Libya Experienced Relatively Weak overall Economic Performance.....	288
7.4 Conclusion	291
Chapter 8 : Interpretation of the Research Findings.....	292
8.1 Introduction	292
8.2 The Case Being Made for Diversifying Libyan Economy	293
8.2.1 The Long-Term Limit to the Growth of Oil Export-Based Rents.....	293
8.2.2 The Daunting Task of Stabilizing the Corresponding Stream of Revenues.	297
8.2.3 The Inability of the Petroleum Sector to Provide Sufficient Jobs	301
8.3 Weak Performance of Non-Oil Reflects Limited Diversification in Scope	308
8.4 Potential Economic Sectors of Diversification.....	313
8.4.1 Tourism Sector	316
8.4.2 Financial Sector	320
8.4.3 The Manufacturing Sector.....	325
8.4.4 Petrochemical Industries	327

8.4.5 Small and Medium Scale Enterprises (SMEs)	328
8.5 Libya Promoting Sustainable Economy	333
8.6 Summary Conclusion	337
Chapter 9 : Conclusion and Recommendation	338
9.1 Introduction	338
9.2 Review of the Main Research Objectives	339
9.2.1 Objective One.....	339
9.2.2 Objective Two	343
9.2.3 Objective Three	345
9.3 A key Challenge Faces Libyan Economy	347
9.3.1 Objective Four	348
9.4 The Potential Contribution of Research	354
9.5 Suggestion for Further Research	356
References.....	358
Research Appendix.....	372
Appendix One: Questionnaire Survey.....	373
Appendix Two: In-depth Interview of Government Officials.....	378

Abstract

The theory of resource dependence captures the extent to which a country's economy relies on resource rents. It is usually measured in proportion to GDP, exports, or government revenues; hence, it is a function of absolute levels of resource extraction and rent capture in the context of other economic activity and sources of state revenue. This study has focused on the efforts to date by Libya to diversify its economic base. The resource dependence observed in Libya's economy is driven mainly by the fact that there are relatively few alternative forms of economic activity, as evidenced by a per capita gap in GDP, or a low level of other exports. The state's fiscal reliance on revenues from the extractive industries also depends on the size of other revenue streams. Yet, Libya has been unable to adequately distribute its GDP across a wide range of productive sectors. This concern highlights the earlier awareness to the risks of oil resource depletion which could compromise the future of the Libyan economy. In-depth interviews, and semi-structured questionnaire data analysis were carried out to obtain an actual view of the respondent's perception. The study found that to achieve its objective of sustainability, Libya will need to ensure natural resources continue to be managed efficiently into the future. This may require some policy adjustments. First, diversifying the economy towards higher value-added tasks in manufacturing and services requires renewed emphasis on the structural reform agenda, as well as enhancements to public investment management. These will create the necessary conditions for accelerate productive investments in non-commodity sectors. The formation and the implementation of the policy were consistent with the analysis suggested by literature review. A series of recommendation to improve on the policy was made based on the analysis of the problems indicated and based on suggestions from respondents.

LIST OF TABLES

Table 3-1: Major GDP Contributor of the UAE's Economy by Sector (%):.....	89
Table 3-2: Total Government Revenues of the UAE:	92
Table 3-3: Malaysia key Commodity Exports, % Relative to GDP	99
Table 3-4: Indonesia Exports Composition and Annual GDP Growth:	102
Table 3-5: Annual GDP Growth and Exports Share:.....	106
Table 4-1: Public Revenues in Libyan Economy (1973-1980) in Million .L.D	122
Table 4-2: Public Revenues in Libyan Economy (1981-1985) in Million .L.D	125
Table 4-3: Public Revenues in the Libyan Economy (1973-2010) in Millions .L.D.....	138
Table 4-4: Distribution of Non-Oil Revenues (1980-2010) in Millions L.D	140
Table 4-5: Public Spending in Libyan Economy (1973-2010) in Million .L.D	146
Table 4-6: Public and Development Spending in the Economy	149
Table 5-1: The Structure of GDP in Libyan Economy (1975-2010)	177
Table 5-2: Scale - Hirschman about Diversifying the Structure of Output in the Libyan economy, selected years (1975-2010).....	185
Table 5-3: Hirschman values about Diversification the Structure of Output, associated with Oil Prices Trends (Selected years 1975-2010)	185
Table 5-4: Share of Oil and non-Oil Export to Total Exports:	189
Table 5-5: The Contribution of oil and Non-Oil Revenues in Public Finance	194
Table 6-1: Questionnaires Survey Response Rate:.....	226
Table 6-2: Overview of Data Collection Plans:.....	229
Table 6-3: The Structured Face-to-Face Interview Themes:	231
Table 7-1: Demographic information of the respondents:	239
Table 7-2: Seriousness the Unpleasant Impact of Oil Price Changes on Growth:	245
Table 7-3: Perceptions on the Awareness of Oil Resources Depletion:	247
Table 7-4: Perceptions on the Efficiency in State Spending of Oil Resource Allocation:	248
Table 7-5: Perceptions on Actual Status of economic Performance of Non-Oil Sectors:	251

Table 7-6: New Trends Desired to Promote the Non-Oil with a view to Future Economic Diversification:	253
Table 7-7: Suggestion on the Government Initiatives and Support of Domestic Non-Oil with a view to Future Broad-Based Economy:	254
Table 7-8: Perception on Economic Diversification Potential:	258
Table 7-9: Inability of the Oil Sector to Create more Jobs Opportunity:	260
Table 7-10: Perceptions on the substitute Non-oil Sectors (e.g., Tourism, SMEs) to ease the Labour Market Pressure.	261
Table 7-11: An Indication on the Best Annual rate of Growth needed in Non-Oil:.....	262
Table 7-12: Simple Correlation Matrix between Diversification and Economic Variables	272
Table 7-13: Logistic Regression Results for the Diversification Variable	275
Table 7-14: Interviewee perceptions on Insufficient of Economic Development Policies Pursued Targeting Diversification:	281
Table 7-15: Economic Analysis of Personal Interview's Surveyed:	281
Table 7-16: Interviewee Perceptions on the Country over Reliance on Oil, and lacks of Economic Diversification:	284
Table 7-17: Interviewee's Perceptions of new Economic Trends Desired to raise the Relative share of Non-Oil Sector:.....	286
Table 7-18: Interviewee's Perceptions on the State Commitment to Establish an Effective and Sound Economic Performance:.....	288

LIST OF FIGURES

Figure 1-1: The Framework of Research:	23
Figure 4-1: Public Revenues of Libyan Economy	122
Figure 4-2: Public Revenues of Libyan Economy 1981-1985.....	125
Figure 4-3: Rate of growth in oil Revenues of Libyan Economy.....	139
Figure 4-4: Distribution of Non-oil Revenues	140
Figure 4-5: Ratio of Development Expenditure to GDP %	150
Figure 5-1: The Structure of GDP (1975-2010)	178
Figure 5-2: Diversification trends of Libyan Economy	185
Figure 5-3: Hirschman Index coupled with oil prices changes.....	186
Figure 5-4: Share of oil and Non-oil Revenues in Public Finance	195
Figure 7-1: Gender of the Respondent.....	240
Figure 7-2: Age Group.....	241
Figure 7-3: Level of Education	241
Figure 7-4: Occupational Status of Respondents within Institution/company	242
Figure 7-5: Respondents Organization	243
Figure 7-6: Seriousness of risk oil Prices Changes.....	246
Figure 7-7: Perception on the awareness of Oil Resource Depletion	247
Figure 7-8: Suggestion on the Optimal Allocation of oil Revenues	250
Figure 7-9: Performance of actual state of Non-oil Sectors	252
Figure 7-10: An indication of new Trends desired to Promote Non-Oil	253
Figure 7-11: Perception on the role of State	254
Figure 7-12: Perception on Libya's Diversification Prospects	258
Figure 7-13: Consciousness on Inability of Oil sector to provide enough Jobs	260
Figure 7-14: Perceptions on prospective of Non-oil Sectors to Create Job.....	262
Figure 7-15: Suggestion on the best annual Rate of Growth needed in the Non-oil sectors....	263
Figure 8-1: Amenability of Country Determinants of Tourism Linkage:.....	319
Figure 8-2: Economic Sustainability:	334

LIST OF ABBREVIATIONS

ADB	African Development Bank
CBL	Central Bank of Libya
ESRC	Economic Science Research Centre
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GCC	Gulf Cooperation Council for the Arab State
HHI	Hirschman (Herfindal) Index
IEA	International Energy Agency
IMF	International Monterey Bank
IPD	Institute of Planning and Development
MENA	Middle East and North African
MLD	Millions of Libyan Diners
NEDB	National Economic Development Board
NOC	National Oil Corporation
NPC	National Planning Council
ORF	Oil Reserve Fund
OPEC	Organization of Petroleum Exporting Countries
PBEUO	Public Board for Economic Units Ownership
PPPT	Purchasing Power Parity Terms
R&D	Research and Development
SMEs	Small and Medium Enterprises
SOEs	State-Owned Enterprises
SWFs	Sovereign Wealth Fund
UNECA	United Nations Economic Commission for Africa
UNIDO	United Nations Industrial Development Organization
WB	World Bank

Chapter 1: Introduction

1.1 Background and Significance of the Study

Oil can be a blessing to a country and at the same time it can be a curse. The blessing for Libya is of course the wealth that has been generated, but the curse is the fact that Libya has been unable to diversify appreciably outside the oil sector. It seems possible that further Libyan economic development will continue to depend on oil receipts, at least in the near future. Its heavy dependency measured by the fraction of the oil and gas sector relative to the GDP, which has reached its peak to 71.3% in 2005 (Central Bank of Libya, 2006). Indeed, Libya is well aware that its oil resource will, at some time, run out. Even though the oil provides sufficient sources of finance and foreign exchange that Libya needs to avoid any future dependency. The rationale of this study stems from the importance of diversification and its need to address the negative aspects of oil sector dominance in the economy and increase its real activity performance. Three main reasons have been identified which make a clear clarification for the need for diversification out of oil, notably; Depletion of oil resources: the consciousness of the finite nature of the oil source. We can identify that the finite nature of oil in Libya means it can only extract the resource for another few decades, and this would create a continued need for economic diversification. Trends in terms of trade and price instability: An oil export concentration involves heavy risks to global prices or production shocks. Likewise, Libya's oil revenues depend on the demand of world market changes, which leads to volatility. Such volatility will cause negative effects on public spending. An additional, apparently intractable problem for Libya's economy is the fact that the oil industry cannot provide sufficient employment for the rapidly growing labour force. Thus, generating sufficient jobs for the active population still remains a major challenge.

The number of young people seeking jobs is increasing each year, but career opportunities are insufficient. According to the latest National Authority of Information and Documentation of 2008, Libya has recorded an unemployment rate of 30%, due mainly to its large reliance on the government and state enterprises (three quarters of the country's employment) for employment creation which has reached a saturation point. These has been a rapid population growth at a rate of 1.8% annually for the last two decades, in particular in youth who are more highly educated, where the proportion of the population above 15 years has increased from 50% in 1994 to 68% in 2008. This has made it difficult for the public sector to provide adequate jobs to keep the unemployment rate under control. In addition, the increase in young job seekers has also lead to increasing the demand for social services, notably education and health care. The Libyan economy, like a number of other economies, depends heavily on oil revenue, which is volatile and unpredictable. It has been acknowledged by many oil economies such as Indonesia, that oil is unreliable for them to entirely rely upon it for their production and export, and to use the oil revenues simply to fund domestic development projects and consumption. Thus, it has become necessary for countries in this position, for instance Libya, to rise to the challenge of how to achieve sustainable economic development through the appropriate utilization of oil revenues, which will in turn generate non-oil revenue, and assure future prosperity. Thus, diversification is often seen as an important natural policy response ingredient in sustainable economic growth.

1.2 Research in Context

The economic theory of diversification is basically associated with the notion of economic development, which in its broad perspective seeks to make changes aimed to achieve equilibrium in an unbalanced economic structure. This in essence can be achieved through the development of certain economic sectors at a faster rate than other sectors, by transfer of the available resources and capabilities of economic sectors with low productivity to other high productivity sectors. Thereby, this uneven growth rate among the non-oil sectors, reflected mainly in the form of a decline in the relative contribution of certain economic sectors to the composition of GDP, increases the relative importance of other sectors, which are likely to lead the process of economic development and make the desired structural change (Crosby, 2007).

Oil producing countries, as is the case of Libya, are characterized by an unbalanced productive structure reflected in the dominance of one economic sector of primary production (e.g., oil and gas). However, developed countries and in particular, oil dependent are characterized by a balanced productive structure reflected in their high capacity to mobilize the available resources in order to serve the requirements of development and economic growth on the one hand, and to ensure the efficient use of these resources compared with developing countries on the other. Indeed, the degree of economic diversification would increase rapidly with the progress of economic development in the developing economies, where it supposed to create structural changes in output and employment (Aissaoui, 2009). As a result, the relative importance of the manufacturing sector would increase in its contribution to GDP compared to the primary sector, while the growth of per capita income that accompanies development processes would cause an increase in the relative importance of the service sector compared with any of these sectors mentioned.

Moreover, it is assumed that labour productivity in the manufacturing sector would increase alongside economic development processes to become more efficient than those in the primary sector. This would be reflected in the form of differences in the productivity of the workforce among the various economic sectors, which in turn would increase the contribution of the manufacturing sector to the structure of the GDP (Shediac, *et al*, 2008). In addition, from the perspective of the structure of foreign trade this will be a reflection of the structure of domestic production. It is also a reflection of the consumption patterns of people. Thus, the structure of foreign trade will change in turn accompanied with the progress of economic development. Imports of developing countries are manufactured goods with their counterpart payment often made through the proceeds of the export of primary products, especially the minerals (Bruce, 2008).

However, the increase in income, as a result of the development processes and an increase in the degree of economic diversification, would lead to a reduction in the share of imports of consumer goods, and an increase in the share of imports of capital goods and raw materials. As a result, the imports of consumer goods will become a decreasing share of total consumption, while the imports of capital goods will become a declining proportion of domestic investment. However, the share of capital goods in the total imports will increase, because the ratio of investment to GDP will in turn increase with the progress of development and the increased degree of economic growth (Basher, 2010). Moreover, the positive effects that can be attained from increasing the degree of economic diversification would lead to a positive incentive to diversify the structure of exports and therefore to achieve a degree of economic stability.

Perhaps avoiding the negative impact on the main indicators of macroeconomic level in the economy when fluctuations occur in export earnings, would highlight the most positive aspects of diversifying the economic structure. It is certainly recognized that developing countries are mostly characterized by the

economies of mono-commodity. This economy reflects the structural disturbances in production, as these depend on: the structure of public revenue, (either in the public budget or on the side of hard currencies), on a major source of income (generated by exporting one commodity or a few primary commodities, which are characterized by their volatility to market prices), and the quantities demanded according to the conditions of the global economy (Koren & Tenreyro, 2010). This would continuously cause a dual difficulty, not only impacting on public budgets, but also influencing the conditions of the trade balance. This in turn would have a significant effect on all key macroeconomic variables, such as savings, consumption, investment, the structure of domestic demand, and domestic prices, that are accompanied by the volatility of export earnings.

In this context, the main fact is that, economic development and economic stability in developing countries are thus far suffering from a decline in the degree of diversification in their economic structures, and are facing many difficulties and problems, especially in light of interaction of global economic relations. For instance, the exports of primary production are suffering from fluctuations arising mainly from the slow growth of demands on these exports, compared with growth in demand for industrial exports. The first explanation for this, as suggested by R. Prebisch (1950) and H. Singer (1950), is known as Prebisch-Singer hypothesis. They pointed to a tendency for primary goods prices to decline relatively to manufacture goods prices, and suggested that the share of primary goods in GDP would diminish due to technical progress. They have underlined the risks to growth and stability of an extreme concentration of the primary products exports. The most important argument to explain the long-run decline is the average income elasticity of demand for primary goods, which is significantly lower than the average income elasticity of demand for manufactured goods. The effect of the lower skills and technology needed for the production of primary goods, and their marginal linkages with other parts of

the economy result in lower growth (Collier & Goderis, 2007). Moreover, the deterioration rates of international exchange to the detriment of primary exports in the long term, and the low elasticity of domestic demand on primary products, makes them sensitive to commercial cycles, and subject to the conditions and circumstances of economic growth, especially in industrialized countries, which are the main importers of these products (UNECA, 2007).

There is no doubt that the low degree of structural diversification in developing economies makes them more exposed to the international trade effect, due to the low degree of commodity diversification in the structure of exports on the one hand, and the low degree of industrialization in the exported goods to abroad on the other hand. The trends in ‘terms of trade’ in the long-term are deteriorating, which is unbeneficial to products exported by developing countries. This is due to the differences in the demand elasticity between the industrial goods and primary commodities, because the structure of industrial goods markets is distinguished by a higher degree of monopoly. Moreover, the significant role played by technological changes, would lead to an increase in the price elasticity of the demand for primary commodities in the long term, because of the updating and development of alternatives for industrial raw materials, or savings and rationalization of the consumption of these substances in the major consumers mainly the industrialized countries (Zayed, *et al*, 2009).

Following the second oil shock in the 1980s an attention began to focus on the experience of the oil exporters, the slump in oil prices had a major adverse effect of oil dependent economies because their main source of income was oil revenues. One empirical study (for instance, Alnasseri, 2005) has demonstrated a chronic deterioration in primary commodity prices relative to the prices of manufactured goods. The main finding is that a reduction occurred in the relative prices of all commodities in the period from 1980 to 1986, by about 0.5% annually, while the relative prices of the primary commodities non-oil and energy have fallen by about 0.6% annually over the same period. Therefore, this

chronic decline has not varied much for oil exporting economies. It has been realised that despite the increase in the nominal price per barrel of crude oil in 1973 from 3.1 US\$ to the level of 32.5 US\$ per barrel in 1981 on average, its real value has only risen to 16.4 US\$ per barrel, taking into account the effect of changes in the price of the U.S. dollar against other major currencies, and the impact of inflation in industrialized countries, regardless of the decline in the real value of a barrel of crude oil from 16.4 to 7.05 US\$ and then 5.61 US\$ between the years 1981, 1990 and 1996 (Shamyia, 2007).

Diversification of the economic structure is necessary to reduce the risks arising from a single structure and one source of income. Diversifying the sources of income and output in order to avoid the adverse effects on export earnings in the long term, and thus isolating any negative effects of global economic developments on the domestic economy, is also important. There is no doubt that such conditions would lead to further uncertainty regarding the prospect of one economic sector depending on one primary commodity for production and export to drive the economic development processes. The main restrictions were mainly reflected in the weakness of forward and backward linkages to the primary production sector (Polterovich, et al, 2010). Unlike other activities which draw their inputs such as land, labour and capital from a wide variety of other smaller industries and in turn stimulate and induce a wide range of productive activities, oil offers few such backward and forward linkages. Petroleum remains a highly insulated and technologically advanced industry with little direct spill over into other economic sectors. Thus, the relationship between the oil sectors and the rest of the economy is fundamentally financial.

These were mostly confined to the financial ties that provided the necessary funding for the development of other sectors (e.g., the oil sector). Little or no impact has been made on the movement of resources among these sectors, especially those associated with the human element (Karl, 2007). Thus, such economic facts make it an important task to create a diversified productive

economy, in order to get rid of the negative economic aspects and their potential impacts on the overall economic development process. It can be argued that the motivation and ability to achieve economic diversification is based on a number of bases that can be set forth as follows;

- 1- Reducing the economic risks arising in the international market due to continuous reliance on the structure of the economy on a single sector, or on the production and export of a certain commodity in its raw form (for instance, crude oil). Given that the reduction occurs in the level of growth in this sector, or in the level of demand for its products, this would be reflected negatively on the growth rates of all other sectors, and in the GDP and per capita income, which is the issue experienced by most oil-based economies including the Libyan economy, accompanied by a decline in the global demand for oil, falling oil prices, and a falling quantity exported abroad.

Accordingly, a number of studies (Backus Crucini, 2000; Cashin, and McDermott, 2002), have indicated that changes in world prices were considered as a significant source for the emergence of risk and instability in developing countries, including the Petroleum Exporting Countries. On the whole, the economies of developing countries received about half a per cent of their export earnings from the export of primary commodities, where the prices of these exports are fluctuating, only dependent on the circumstances of the global economy, but are also subject to fixed periods of increase or decrease (Collier & Goderis, 2007). An important feature of commodity prices is their rapid, unexpected, and often large movements. It is equally easy to point to the main reasons for the sharp commodity price instability. The price elasticity of demand for raw materials is usually quite low. The aforementioned, then, are the main explanations for the short-run price instability observed in most primary commodity markets. It's believed that such instability will cause serious macroeconomic problems to countries that are heavily dependent on the exports

of one or a few commodities. Therefore, it would be very difficult to insulate the domestic economy from such shocks, which makes the economic diversification (both of the sources of income and output) an important element to reduce the risks that might be exposed to the national economy, due to a declining demand in its main product or as a result of fluctuations in world market prices.

- 2- The aftermath of the 1990s gave rise to speculation that large-scale revenues might be bad news for the development prospects of oil exporters. The public budget (in the structure of its revenues in developing countries, and in the oil-based economy, including Libya in particular) heavily relies upon taxes, foreign trade, and on the proceeds of the crude primary commodity export to abroad. This is indeed very different to the structure of revenues in developed countries, which depend mainly on income taxes from revenues.

This in fact would make the impact of fiscal policy instruments limited on the revenue side. Any fluctuations in the volume of public revenues owing to lower export earnings would consequently lead to fluctuations occurring in public spending on both consumption and investment. This in turn would negatively reflect on the level and efficiency of public services provided by the State on the one hand, as well as on the other hand reflecting negatively on the rates and levels of domestic investment. This due to of public investment spending represents the backbone of the total investment in the economy, and thus on the overall development process particularly in oil-producing countries, which the presence of revenue in their economies representing an attractive source for public revenues. Perhaps these facts highlight the importance of diversifying the sources of income and output in the economy in order to diversify the structure of public revenues, by developing other sources of these revenues. This would ensure the stability of fiscal policy, and create a higher degree of elasticity in the revenue side that can mitigate the negative consequences of volatility, and the

rate of growth of public revenue, due to dependence on one single commodity in the structure of these revenues (Koren & Tenreyro, 2010).

- 3- The importance of diversifying the structure of the economy stems from the importance of achieving a degree of independence among the various sectors within the economy on one hand, and between the national economy and the global economy on the other hand. The country must consider what could result in lower or collapsing rates of growth in the main sector, and to negative effects on growth rates and levels of production and employment in other sectors in the economy.

In the context of the above, an economic diversification can be identified as a combined effort, organized, and continuously to create and enhance sources of income. Indeed, diversification stems from the essence of the economic environment reflected in comparative advantage. It is not the ambition to establish economic activities through investment projects; their sustainability is difficult to maintain, due to a lack of competitiveness at both a regional and a global level. As it has been defined by a number of economic scholars, see for instance (Savard, *et al*, 2010; Coury & Dave, 2009; Gelb, 2010), in the framework of Gulf Cooperation Council economies, diversification implies the development of non-oil sectors, and mitigates the proportion of revenues and proceeds that the state derives from oil exports. It also means implicitly reducing the role of the public sector to promote private sector growth, which is an important and effective objective of the efforts aimed to restructure these economies.

Moreover, Aissaoui (2009) argues that the lack of diversification is an important explanation of poor economic performance in oil-based economies. However, while diversification may be an obvious solution it has proved to be an extremely elusive one to achieve. Since the early 1970s oil-exporting countries have paid lip service to the diversification of their economies away from

dependence on crude oil exports. Despite this, the record in general has been very poor with huge amounts of public money being poured into inefficient and uncompetitive industries. Therefore, economic diversification in Libya has to be one of the central issues in the process of economic development for at least two reasons: first, diversification is important because most of the Gross Domestic Product (GDP) growth derives from the contributions of the oil sector, amounted to 71.3% in 2005, second, the inability of the oil sector to offer sufficient job opportunities for the growing population. Libya needs strong and sustained economic growth to meet the needs of its rapidly growing labour force, which requires a high investment in physical and human capital and a more efficient use of the country's resources (IMF, 2006). However, fluctuating oil prices will affect the achievement of these objectives.

Possibly this economic sense of diversification can also be attributed to the awareness of the issue of the limited reserves of oil and natural gas in the oil exporting countries, which we believe appropriate and fit for the purposes of this study. Moreover, it is essential to develop and diversify their traditional economies beyond oil and its derivatives, as a strategic objective to tackle the problem of economic instability associated with the heavy reliance on oil exports. Hence, Libya and its economy may experience a sustained path of growth, either if oil prices increase, or if Libya gradually isolates itself from oil dependence. Although the first scenario may seem plausible in the coming few years due to increasingly exhausted oil sources and relatively increasing demand. However, there are arguments as to how long this can persevere. In regard to the second scenario, it is evident that remaining sustainable is also about promoting alternative opportunities that are independent from the oil sector. Therefore, can the non-oil sector, with the appropriate assistance of the government manage to grow without being dependent on the oil sector? In other words, can any diversification objectives be accomplished?

1.3 Statement of the Research Problem

To help understand the nature of all aspects of the Libyan economy, it is important to state the problems, and provide ways to overcome them. Libya's economy faces the problem of all oil dependent economies, namely that its inadequate scope of diversification puts the country's economic performance and macroeconomic indicators such as GDP growth, at the mercy of fluctuations in the oil market, where it is dominated by the value added of oil and gas sector. The domination of oil is very pronounced in the case of Libya, which made its peak at 72% of gross domestic product (in nominal terms), 93% of government revenues, and thus it represents the only source almost in the generation of export revenues, making it highly vulnerable to fluctuations in global prices. This share is large indeed and shows the relative lack of diversification in the economic base of Libya. A large amount of economic Literature suggests that such dependence may affect a country's growth prospects and job creation by reducing the scope of economic diversification.

Libya is endowed with natural resources, yet there seems to be a problem of reaping the benefits of these natural endowments in terms of translating oil-led growth into development. Hence, the Libyan state is highly centralized and the rent received by the government has very little to do with the productive efforts of the community as a whole. Thus, the scope of the economy, in terms of its effect on limited non-oil production and services, the potential of the private sector to contribute more to the development, and the local labour participation in the process of development and economic growth is still marginal and limited.

Due to the fact that oil is a finite resource produced in an enclave economy, and that reserves will eventually be exhausted, the price, which fluctuates considerably, implies that the Libyan economy has faced a series of external shocks in the last three decades. This fact makes the Libyan government realise

that the base of its economy is very weak as long as it depends on export of a single depleting commodity, since continued dependence on oil revenue for socio-economic development is not a reliable option in the long term.

It is clear from the above that Libya's continued economic dependency on the oil and gas sector, and an increasing level of unemployment has, however, remained a chronic problem, and is thought to be risky for the country for a number of reasons. Firstly, oil is a finite resource and reserves will eventually be exhausted. Secondly, the oil market is characterised by uncertainty and instability, because oil demand depends on the performance of the world economy. Finally, the oil sector has weak linkages to the rest of the economy, Libya total employment accounting for less than 3% of the total labour force, with three-quarters of employment (75%) still in the public sector and private investment accounting for only 2% of GDP, (Bruce, 2008). The lack of diversification in the economy has impacted job creation with overall unemployment levels estimated in 2009 at 20.7%, and up to 30% for youth under 25 (IMF, 2009). These effects have been exacerbated by a lack of human capital and skills development in key areas and by the dearth of backward and forward linkages emanating from the capital-intensive nature oil and gas sectors.

The enduring dominance of the oil sector in the Libyan economy appears to have complicated accelerated structural transformation and sustained growth. Overall, the country's failure to create a diversified industrial economy can be ultimately associated with outdated and dysfunctional development strategies perhaps not only because they were state-led but because they were "misguidedly" led. Thus, the failure of the development process in Libya, despite the priority of several development attempts and the massive financial resources allocated toward development since the early 1970s, has meant that only modest progress towards these goals has been achieved. The Libyan economy still lacks the level of diversification that would enable the country to reduce its dependency on the oil sector.

1.4 The Key Research Questions

Writing about the economies of countries is not as easy as simply stating their benefits. Only, because ‘economy’ is a very wide term that covers almost every minute detail of a people. Every year billions of US dollars are derived from oil earnings and have been flowing into Libya’s public budget. However, one of the main policy debates is how to transform that wealth into other non-oil sources of income that may be promoted besides oil. This research addresses an important question, basically: Taking into consideration the significant issues associated with oil dependency, what is the prudent policy that should be adopted by Libya (as a typical example of an oil-based economy) in order to achieve rapid and sustainable economic growth?

The significant issues referred to above being: trends in oil production extraction and depletion; oil price swings; the lack of job creation because the oil sector is highly capital intensive, and so any further expansion in this sector would not lead to rapid job creation; population growth reducing natural wealth per head, and the subsequent negative effect on economic performance. In particular, the research attempted to answer the following questions:

1. How can Libya wean itself from its oil dependency and develop a wider range of exports and revenue sources?
2. Why there has been little progress in exploiting non-oil sectors in economic growth?
3. Why oil revenues have not been effectively used “to pump prime” non-oil sectors?
4. What potential does diversification offer for long term development strategy in order to avoid economic decline and achieve sustainable growth?

5. Which are the most effective economic policies to be pursued in order to foster economic diversification away from a heavy reliance on oil revenues?

Thus, it seems the economic reality in the current situation is weak and distorted, and its implications lead to stressing two important questions: To what extent can proceeds generated by oil exports continue to play a major role in enhancing Libyan economic growth? In addition, the study deals with an economic debate: How far from reality is the idea that Libya can turn its economy from curse into a blessing?

In response to a question, it should be noted that we live in an era of rapid transformation towards openness and integration into the global economy. This, of course, requires the country to develop its capacity for economic, financial, monetary and institutional development, and its capacity to build human ability and investments in human resources to boost their skills and lay the economy on the right track. This of course will only be possible through the development of a forward-looking long-term plan to define the objectives, and appropriate means to achieve those goals.

1.5 Research Methodology

Having identified the key issues and developed a relevant set of questions there followed a period of intensive primary and secondary research. Data and collateral information needed to answer our questions was collected methodically. The study focuses on answering the question regarding the dominate role of the oil sector in the Libyan economy and the implications of that domination in its economic performance, using the literature available on the subject of the linkage between the primary commodity sector and growth. For this particular purpose, we have used both primary and secondary data and the methods of analysis are both descriptive and inferential. The methodological approach employed was analytical using an exploratory data analysis (a variety

of explanatory variables affecting growth rates) to analyze the data and extract important information about Libya dependency on primary commodity. This method is very useful for economists analysing data, and hence, it could lead the subsequent data analysis to be sounder (Unwin, 2010). This methodology emphasizes the use of visual displays to reveal vital information about the data examined. Hence, this research will approach an exploratory data analysis, as the researcher believes that the methodology is appropriate for addressing the research questions, and allows the researcher to look at the data in many different ways in order to gain new insights and extract important information.

- 1- Quantitative secondary data were used to evaluate the diversification level achieved so far in the structure of Libya's economy: The criterion for assessing the success or failure of Libyan economic development resides in determining the extent to which the development process is successful in furthering the diversification goals. Libya's heavy dependency on oil and gas sector can be seen by examining the major macroeconomic indicators over the years, notably GDP growth and its economic structure, public finance (reflected in government revenues and expenditures), as well as gross export as a share of total merchandise exports. This aimed to determine the absolute levels and observed trends of diversification. The focus was on three key measures of diversification which were the following:
 - a. The contribution of oil and non-oil to GDP; to estimate whether the GDP was evenly distributed across a wide range of economic sectors or only relied on one dominant factor in the Libyan economy.
 - b. The share of non-oil exports in the total of export earnings (share of export in diversification scope) to determine the "Concentration Ratio" of oil exports as primary commodity.
 - c. Share of oil and non-oil revenues in the total public finance (the percentage contribution of oil revenues as a proportion of total

government revenues) to indicate whether or not dependence on oil revenues is being reduced.

The annual data collected from the Central Bank of Libya, and international official sources will offer aggregate values of GDP, export, and revenues. In this sense diversification can be relatively measured, using a simple descriptive analysis of short and long term trends in major macroeconomic variables investigating the share of the oil industry in a) % of GDP, b) exports, and c) governments' fiscal receipts.

In order to supplement the relevant information, we conducted a survey in 2010 and we employed frequency and percentage tables, charts, figures to present and discuss our survey results. The survey consists of two modes of data collection.

- 2- In addition to using a number of official sources, the researcher has also approached another field work in Libya. A questionnaire survey was employed to solicit the viewpoints, and beliefs of respondents. The questions that were asked to gauge the level of respondents' actual awareness of the seriousness of the problems related to oil reliance and its likely finiteness, the erratic nature of growth associated with volatility, and lack of employment creation. The aim of survey was to acquire general insights from the respondents' perceptions of whether the prospects of Libyan economic growth can be sustained in long run will depend upon the success of diversification attempts to decrease the absolute cycle of dependency on the oil sector, and promoting non-oil activities to fulfil the objective of sustainability.
- 3- A supplemented in-depth personal contact interviews were also conducted with twelve individual's government officials'. Two were academics specialising in economics representing the Libyan Research Centre for Economic Sciences, four of whom senior officials in the National Planning Council, and the remaining six were professional administrators

representing the National Economic and development Board. The aim was to obtain their viewpoints to gauge their likely policy responses concerning what could overcome, or at least mitigate, the issues pointed out in the research problems. Since the sample was relatively small, the data were analysed using content analysis, and the researcher identified four themes that the interview will cover to answer the research question and accomplish its objective.

The results obtained from both the questionnaires surveys and semi-structured interviews provide further policy implications to draw from the findings derived from the secondary data established in chapters four and five. This will enable the researcher to determine what needs to be prepared for the Libyan economy to accelerate the rate at which non-oil sector can grow for the transition of the Libyan economy, by mitigating the concentration ration of the GDP in the oil sector, generating employment, and boost the role of private sectors in economic activities.

1.6 Summary of the Main Aim and Key Objectives of the Research

The objective of this research is two-pronged. Firstly, it is to highlight the importance of diversification and the role it could play in strengthening and stabilizing growth dynamics in Libya. The second objective is to provide suggestions for defining and adapting policies towards the structural transformation of the Libyan economy through greater this diversification. In order not to deviate from the main purpose of this study, this thesis demonstrates why Libya's economy continues to be heavily dependent on oil revenues, and therefore is not concerned about the conversion of its oil resources into other sources of income to achieve sustainable economic growth. In recognition of the situation, the research seeks in particular to meet the following suggestions:

- **Key Objectives of the Research;**
- 1- To undertake a critical review of relevant literature about the economic impact of countries being over dependent on one or few commodities as their main generators of income would be likely to affect growth prospects.
- 2- To investigate to what extent does Libya depend on commodity production and what is the significance of this dependency for its growth.
- 3- To review and assess the existing level of economic diversification and its trend, which has been achieved so far in the structure of the Libyan economy.
- 4- To explore likely alternative resources of income that can replace oil wealth when it has been totally depleted, and therefore achieve a sustainable and bolstered level of growth.
- 5- To put forth some suggestions for policy consideration based on the findings of this research.

1.7 The Outline of the Research

The research is organized into eight chapters.

Chapter One has set out the background of the research study, clearly addresses the main research questions, and outlined the research problems, which need to be tackled during the study. It also highlighted the main research aim and its key objectives.

Chapter Two a review is presents of major, and well-known theoretical foundation of the main arguments currently emerging in the domain of economic diversification in primary commodity developing countries such as Libya where economic diversification has not yet been fully investigated. The core aim is to understand the essential gaps in the current literature, and these gaps will serve as a starting point in supporting the research study. They are important to recognize because these theories are reflected on in later sections, for instance, findings and analysis.

Chapter Three considers the experiences of other countries. It reviews the approach that the UAE, Malaysia, and Indonesia adopted to lessen their large reliance on one single source of income. The three examples show how countries dependent on non-renewable resources can either descend into having an insubstantial economy due to running out of such a resource, or use them prudently to further increase their wealth. The aim is to see how far their attempts have succeeded in diversifying the economy and enabling a structural transformation to take place. The chapter then draws some lessons that might be learnt from these economies' experiences and considerers the type of policy framework that would to facilitate this necessary change.

Chapter Four sheds light on the role of oil revenue and the main issues and aspects which have shaped the Libyan economy and its development phases, in order to identify the factors that have caused some shortcomings in development (and inadequate economic performance) due mainly to its over-dependence on oil, for instance, are discussed within the context for the need economic diversification. The analysis uses Libya as an example of a country that earns most of its foreign exchange earnings from oil, suffers heavy exposure to the volatility of oil prices, and is currently having its resources depleted.

Chapter Five: In order to establish the present level of diversification and development in the Libyan economy the researcher used a number of indices, the aim was to identify and analyse the degree of diversification that has been achieved so far in the structure of the Libyan economy. The analysis uses Libya as a case-study of an oil-based economy, which gets most of its foreign exchange earnings from the export of crude oil. The study essentially employs descriptive data analysis, and appropriate tables, graphs, and charts will be used to depict any changes in revenue from different product sectors. This will assist in showing their contribution to economic growth in Libya. The data will be plotted on diagrams to show the trend over a period of time, demonstrate the growth rate trend and the extent of economic diversification, and analyse some

policy changes. This has been done using secondary data gathered from various economic studies.

Chapter Six presents the research design and methodology behind the analysis of the findings, which will be discussed in Chapter Six. This chapter explains the strategic research philosophy adopted. Two questionnaire surveys were conducted. The first sampled 300 individuals obtained by means of a snowball approach. Two-hundred and forty useable responses were obtained. The second questionnaire was administrated to twelve government officials as semi-structured interviews. It also discusses the research sample frame for both parts of the study and discusses any concerns about the procedure. It will further outline the main data analysis techniques that have been utilised to interpret data findings.

Chapter Seven presents a detailed primary analysis of the results obtained from both parts of the study (the questionnaire survey and the in-depth interviews). The objective of this chapter is to answer the main research questions, which were proposed in chapter one of this thesis. However, Part One's analysis focused on the questionnaire surveys in order to determine public perceptions of the issues considered in the preceding chapter. It is intended to facilitate debates and analyse respondents' awareness in terms of the importance of oil and its likely finiteness. Part two's analysis focused on seeking the opinion of government official administrators in Libya in order to achieve two main objectives. The first aim of this study to find out to what extent, diversification the productive base is important to the country's national economy and social developments, and secondly to explore the likely policy response that overcome or at least mitigate the identified issues.

Chapter Eight represents the research findings in more detail and interprets the information obtained from Chapter Four and Six in terms of developing a new approach to the diversification process, which will be used to develop sound

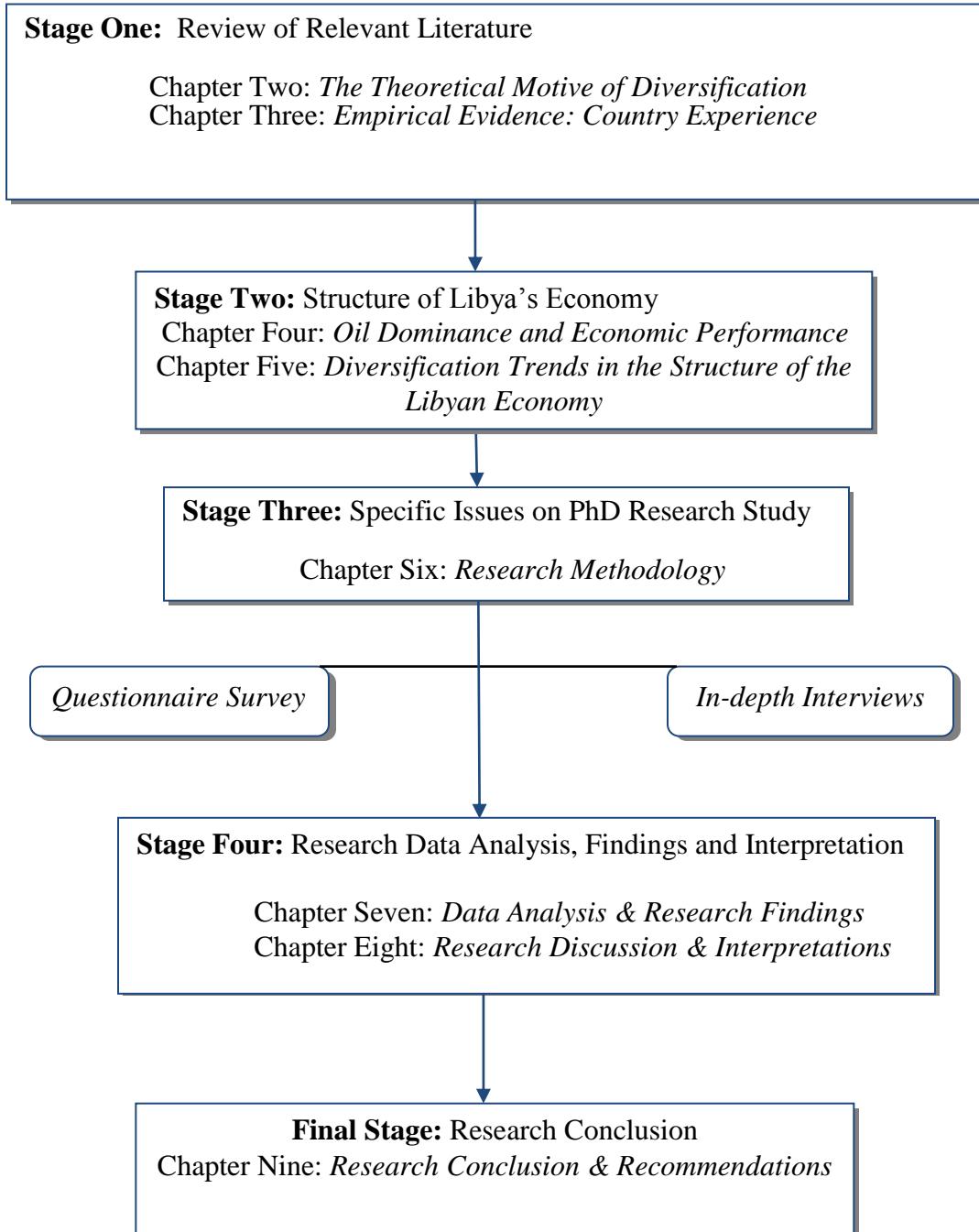
economic performance. In addition, chapter eight explores whether there is any possibility that Libya's non-oil economy may confront diversification purposes in the future. These findings are very important because they provide some guidance towards overcoming the identified issues, otherwise attempts to diversify the Libyan economy will not be achieved.

Finally, Chapter Nine review the main research conclusion according to its main objectives, and concludes by offering some policy recommendations for all the acknowledged inadequacies in order to help promote the Libyan non-oil sectors efficiently and effectively. Moreover, the research limitations, and suggestions for further research studies to be carried out will be addressed.

1.8 Summary

This chapter has reviewed the overview of research study and pointed out to the significant of economic diversification as being the main policy objective for commodity-based economies with an application of Libyan case, due mainly to the unsatisfactory of its economic performance. Thus far, it has also summarised the key research problem because of heavily reliance on oil revenues was its main features for the past decades. Having addressed the key research questions, specify the research methodology were identified data sources and requirements, which need an appropriate tool to be undertaking to tackle them, and therefore accomplish the research objective.

Figure 1-1: The Framework of Research



Chapter 2: The Theoretical Motive of Economic Diversification

2.1 Introduction

The topic of diversification has long attracted interest from a variety of sources. Thus far, concern was focussed on primary commodities and natural resources in general. However, the commodity boom and bust cycle of the 1970s, triggered concerted attention began to focus on the experience of oil exporters following the first oil shock. Are countries that are dependent on exports of only a few natural resources condemned by their export structure to experience a lower economic growth rate? And if so, is it exporting natural resources per se that tends to slow growth or is it the countries' dependency on only a few exports? However, do countries with an abundance of natural resources experience a higher rate of growth, or is it that faster growing countries possess a more dynamic diversification sector? This is a crucial topic for analysis because if diversification causes growth, it leads to growth policies being appropriate for the country concerned. Diversifying out of primary products into other sources of value added, such as manufacturing, has long been a major policy objective of commodity dependent developing countries. This quest is all the more important in today's economic context. From this viewpoint, the question arises: What is the theoretical motive for believing that economic diversification is conducive to sustained economic growth? This chapter approaches these questions from a variety of theoretical and policy viewpoints. The theoretical perspectives of this dependency on a primary commodity will be drawn from three theories of thought. An analysis critically of these theories will be useful because they will provide the necessary context for a study of Libya's economic growth, which has so far deviated significantly from most predictions based on this literature.

2.1.1 The “Structuralist”: Prebisch-Singer Thesis

Concern about the potential negative impacts of being a natural resource producer emerged among development economists in the 1950s (Stevens, 2003). Initially the concern was associated with the Structuralist view of commodity dependence put forward by economists Prebisch (1950) and Singer (1950) whom asserted that the economic backwardness of developing countries had arisen from their traditional role as exporters of primary products to developing economies. This was the “big push” view, so-named because such wealth would raise aggregate demand and hence income. The debates were that the terms of trade between primary products and manufactured goods tend to deteriorate over time especially, since the income elasticity of the demand for primary commodities is low (Bleaney & Greenaway, 2001).

Prebisch-Singer maintained that demand for primary commodities by industrial economies would not be strong enough so as to make the production for export of primary commodities an effective engine of growth for developing countries. As a result, developing countries would suffer chronic deterioration in their terms-of-trade, which then would lead to slow growth unless manufacturing industry were developed for domestic markets (Asanuma, 2008). According to this school’s view, there is a basic difference between the primary commodity and manufacturing sectors, in that the production of primary commodities does not hold out the possibility of future productivity growth as does the manufacturing. The view is that concentrating on sectors with a limited scope for productivity growth, such as primary commodities, may result in less broad-based and sustainable growth (Papageorgiou and Spatafora, 2012). The Prebisch and Singer discussion was based on two distinct hypotheses: short (to medium)-run price instability of exports of the primary producing countries, and the long-run trend in the terms of trade associated with primary products. According to this hypothesis, greater natural resource wealth would lead to less economic growth.

The theoretical reasoning was that world demand for a primary product is inelastic with respect to world income, the demand for manufactured goods increases more rapidly than the demand for primary products, and in time the terms of trade for the exporters of primary commodities decline. That is, for every one per cent increase in income, the demand for raw materials increases by less than one per cent (Morris, at el, 2011). Engel's Law is the (older) proposition that households spend a lower fraction of their income on food and other basic necessities as they get richer. This hypothesis, if true, would readily support the conclusion that specializing in natural resources is a bad deal (UNIDO, 2009). Thus, resource abundant countries had suffered from declining terms of trade over time, in turn constraining their prospects for economic growth and development. In order for that relative price decline not to occur, given the difference in income elasticity, the slower growth in global demand for primary products would need to be matched by slower growth in their global supply, but then resource-rich economies (those whose primary sectors are relatively dominant) would still be growing slower, because of slower aggregate output growth (Anderson, 1998).

A prerequisite for developing countries' transformation from poor goods producing to rich country goods is often the existence of an elastic demand for countries' exports in global markets so that countries are able to leverage global export markets without fearing negative terms-of-trade effects. The key is that the transfer of resources from lower-productivity to higher-productivity goods with the presence of elastic demand for these goods in export markets generates higher economic growth: countries are what they export (Hausmann, at el, 2007). In commodity riches developing countries, domestic demand is often very low, so exports remain one of the few channels that in the longer run significantly contribute to higher rates of per capita income growth in a country. Thus, countries that are commodity dependent or that exhibit a narrow export

basket often suffer from export instability arising from inelastic and unstable global demand; thus, export diversification is one way to alleviate these particular constraints (Hesse, 2008).

The issue of declining terms of trade is controversial both the empirical and the theoretical ground marked out has been much contested. Evidence in favour of the Prebisch and Singer thesis is fairly strong. Empirical attempts at establishing the long-run commodity price trends have been undertaken. Among the more recent attempts are those by Cashin and McDermott (2002), Hadass and Williamson (2003) and Harvey et al, (2010), and they have yielded very varied results. Depending on the end points of the series, for countries whose primary export is covered, the deflator used, and the commodities included, the outcomes of these investigations have typically ranged between stagnant and substantially declining developments, apparently adding more support to the Prebisch–Singer thesis. There seems to be some tendency for real raw material prices to fall in the long run.

Empirical evidence had particular attention paid to it from the year of 1970 to 2007 when the second and the third booms happened in 1970s and 2000s. For instance, Collier and Goderis (2007) have advanced the empirical debate by employing a panel estimation of GDP growth and generating long-term effects of commodity prices involving the coefficient of the lagged dependent variable, using the data from 1963 to 2003 on 130 countries and 58 commodities. They used the panel co-methodology to analyse what the impact of commodity prices change on economic growth was. Their main finding was that commodity boom had a short run impact on growth through the improvement of terms of trade, as shown in the current African growth cause by the rise of global commodity prices that began in 2000, but it has adverse long run impact. Blattman et al (2007) used the data from 1870 to 1939 of 35 countries and divided them into two groups: core and periphery. They then estimated how terms of trade volatility, as caused by commodity price instability and secular change,

impacted on the countries' performance from 1870 to 1939 using a regression analysis. They found that in long-run growth, commodity price instability causes both poor economic performances in the periphery compared to the core and poor relative performance within the commodity specialized periphery.

However, there are some commodity exporters' countries which did quite well by specializing in a particular commodity and diversifying their economy towards industrialization (as we shall see in chapter three). They conclude that terms of trade should be the central thought for those commodity producers where commodity choice, dependency and the price trend were crucial determinants of growth in peripheral countries up to 1940. They suggest that countries should diversify their economy towards industrialization instead of merely being dependent on commodity production, in order to avert the adverse effect of commodity price instability. This is also in line with the finding by Hausmann et al (2007) where they found that those countries with more a diversified export composition were more likely to avert the adverse impact of dependency on commodity export and enhance their economic growth.

Moreover, Cavalcanti et al (2012) used the GMM approach and a cross-sectionally augmented version of the Pooled Mean Group estimator. They divided 118 countries into two groups notably: 62 commodity dependent countries with 50% of their exports in single primary commodity, and 56 countries with a more diversified export structure. They found that in the commodity dependent countries, lower volatility in commodity prices could enhance growth, but commodity terms of trade volatility had significant negative impact on economic growth which could be seen in lower physical and human capital accumulation. However, in the 56 countries with a more diversified export structure, they found no significant impact of instability on per capita growth. The findings above, in general imply that dependency on one commodity would be likely to have an adverse impact on economy growth. Both Blattman et al (2007) and Calvacanti et al (2012) used different methods but

came up with the same findings concluding countries that specialized in commodity sector would be likely to suffer from the long-term deterioration of terms of trade.

Overall, the dependency on one commodity sector would be likely to cause a negative impact on economic growth. Those empirical evidences amply that in the short run, commodity booms do bring a relatively positive impact to their economy. However, in the long run commodity booms tend to have an adverse impact on the economy, in particular for commodity dependent countries, as their economy is more vulnerable to price instability where global commodity prices tend to change over time and have a long run downward trend. Prebisch and his supporters recommended that developing countries temporarily close their economies to develop manufacturing industries. Carrère et al. (2007, p.2) argue that “evidence in favour of the Prebisch-Singer hypothesis only means that moving away from primary products is desirable; not that diversification is desirable *per se*”.

As a matter of fact, as early as Prebisch (1950s) and Singer (1950s), economists have warned of the determinant effects of terms of trade shocks in developing countries that depend on a few products for their export earnings, leading to a widespread adoption of diversification strategies. Thus, diversification into manufacturing may be useful if there is a general trend toward declining terms of trade for primary products (Herzer, and Lehnmann, 2006). In other word, the diversification issue cannot be restricted to the move from primary production to a manufacturing production that helps to limit the effects of the deterioration of exchange terms on the trade-generated incomes.

Therefore, whilst a more diversified economy is less prone to the risks enumerated above, diversifying a resource-based economy can also solve potential problems of resource dependence. As a result, there is a need to diversify economies away from primary products, due to unfavorable and

declining terms of trade. Thus, countries relying on primary goods sector have to grow slower than economies relying on manufacturing industries as manufacturing values tend to rise over time as they have a higher value added than a primary commodity. Prebisch (1950) focused on the terms of trade of developing countries as primary commodity suppliers and developed countries as suppliers of manufactured products as manufactured products has higher value added, whereas in long run and long term primary commodity prices decline, caused by the use of synthetic inputs. Indeed, for terms of trade deterioration, the cyclical relative fall in the price ratio of primary to manufactured products tends not to be fully offset by its rise in the period of economic recovery (Bleaney, & Greenaway 2001).

Similar Rodrik (2005) argues that manufacturing industries generally produce goods that can be rapidly integrated into global production networks, facilitating knowledge transfers and adoption. Some products, such as electronics or mechanics, tend to be exported along with a large range of different products; in contrast, other commodities, such as oil, tend to be exported alone. This is because the skills and assets used to produce many manufacturing products can be much more easily deployed in a large range of other manufactures than those used to extract oil, for instance. Thus diversifying into manufacturing may open up more possibilities for boosting exports through the “extensive margin” that is, exports of new products as opposed to exporting the same products more intensively or through an “intensive margin”, in turn, this diversification is associated with greater economies of scale and opportunities to reap the benefits of global integration thereby boosting long-term growth (Diop, et al, 2012).

Meier and Rauch (2005) assert that manufacturing is assumed to be the engine of growth because it somehow yields positive externalities for the economy. Their findings corroborate the widely held view that the manufacturing sector produces larger externalities than other economic sectors. These externalities are important in the sense that they may result in further diversification and

improvements in the ability of all industries to compete globally. This was because manufacturing was subject to increasing returns whereas primary production faced decreasing returns. A more controversial view was that the structural model of economic development suggested that the diversification towards manufactured goods is a necessary condition for sustained economic growth. This vision was derived from a normative interpretation of growth patterns in developed countries by the work of Chenery (1979) and Syrquin (1989). The fact is that manufacturing offers a greater scope for economies of scale and external economies. Their core finding highlights that the diversity of intermediate good inputs enhances productivity in the final goods sector. This is in line with Rodrik (2005), who asserted that enhancing the productive capabilities over a large range of manufactured goods, including the production of new ones, is an integral part of development. One explanation for this relationship is that engaging in manufacturing enables dynamic learning-by-doing gains that raise productivity and income. There could be knowledge spill-overs from new techniques of production, or new management, or that potentially benefit other industries.

A related argument is that diversification exposes producers to a wider range of information, including about foreign markets, and so raises the number of points for potential “self-discovery”. Capability in one sector can open the way to others, especially those that use related knowledge. Some authors suggest that countries can increase their growth rate through externalities associated with diversifying into products where learning by doing is paramount or into “rich country products” that is, more sophisticated products (Hausmann, et al, 2007). The link with diversification is straightforward. As shown by McMillan and Rodrik (2011), growth requires both new activities and ongoing structural changes. Libya’s slow growth implies that the expansion of new activities or structural change, or both, is limited.

2.1.2 The Staples Theory: “Staple Trap”

Attention is being redirected to the Staples Theory, an earlier export based theory of resource-driven growth was suggested by Innis (1954), Baldwin (1956), Watkins (1963), and (Hirschman, 1977) reinforced the probable negative consequence of being a natural resource exporter by arguing that linkages from primary product exports would be limited compared to manufacturing, although by contrast, some tried to argue that primary products could promote growth (Stevens, 2003). Innis’ “staple theory of economic development” argued that the development of manufacturing in Canada and US directly traced back to the synergies arising between commodities production and industry basically from linkages. Each of these experiences involved a positive symbiosis in which industry was stimulated by linkages from energy commodities sectors (Morris, et al, 2011). Building on Innis’s Staples Theory, Hirschman (1977) developed the thoughts of backward and forward linkages and analysed their importance for economic growth. Hirschman studied the economic histories of a number of developed and developing countries and demonstrated that the primary resource sector could positively or negatively influence their economic growth dependent upon its linkages with other sectors. He specifically emphasised the role of backward linkages, and debated that resource based economies created fewer backward linkages compared with manufacturing economies. This explained slow development in many resource based economies. He believed manufacturing provided greater growth-inducing linkages between industries and sectors.

He calls this process backward linkage effects. Similarly, forward linkage effects are created when one industry uses another industry’s outputs as its inputs. The sum of the two linkage effects gives the total linkage effect, which can be seen as the growth in new industries induced by establishing an industry (Honeck, 2012). These linkages are defined by technologies of the resource extraction. In some cases development of resource sector stimulates to the rise

of industries that supply its inputs (backward linkage) and that process the 'staple' products prior to export (forward linkage). Due to this, and some other linkages, an economy becomes diversified gradually. However, the diversification does not take place if the linkages are weak (when, for example, inputs are supplied from abroad). In this case production concentrates in a resource sector that has little contact with the rest of the economy. The weak linkages alternative explanation is based on the ideas of a recent paper by Jones (2011). It builds on Hirschman's earlier work which emphasizes the important role played by linkages and complementarities in economic development. Low productivity in one non-tradable input sector for which there is little substitutability, will act as a weak link in the production chain, hurting all the sectors downstream and the overall development prospects of the country.

In developing a framework for the use of resource proceeds to promote manufacturing deepening, it is helpful to draw on the thinking of one of the pioneers of development economics, Albert Hirschman. Elaborating on the work of economic historians analysing industrial growth in Canada known as "Staples Theory", Hirschman proposed three major types of linkages from the commodities sector. In particular, Hirschman's (1977) linkage approach, with special reference to staples, provides insights by highlighting three types of economic linkages between staples and other economic activities in the economy:

- a) Consumption linkages: staple export earnings finance domestic consumption and stimulate economic activities in response to such demands; however, the consumption pattern may be skewed towards imports.
- b) Fiscal linkages: the government will be able to raise revenue from the high-rent exports, but may not be a good investor with the proceeds. These rents can be used to promote industrial development in sectors unrelated to commodities.

- c) Productive linkages are the third form of linkages from the resources sector, both forward (processing commodities) and backward (producing inputs to be utilised into the commodities sector). It has found to be the most reliable linkage for the purpose of economic diversification.

For Hirschman, therefore, the direct forward and backward linkages were the most likely to lead to the development of a more diversified economic structure. In other words, by relating directly to the output structure of the commodities sector “one thing” would indeed “lead to another” (Morris, at el, 2011). Hirschman believed that the most viable link between commodities and the industrial sector was via production linkages, particularly backward linkages. He argued that, production linkages paved a path for industrial diversification. Hirschman categorized this development process “as essentially the record of how one thing leads to another” (emphasis added) (p, 75). In other words, as recent reviewers on industrial transformation have remarked, successful growth is inevitably an incremental (but not necessarily slow) unfolding of linkages between related economic activities.

Hirschman saw production linkages as providing great potential for industrial development in previously enclave commodity dependent economies and believed that two factors influenced the degree of these linkages. The first is scale, reflecting the size of demand from the commodities sector in relation to the minimum effective scale of production in backward linkages supplier firms and of output for forward linkage user firms. The second is “technological strangeness”, that is, how similar the technology and processes are between the core resources sector and those in supplier and user firms. Hirschman described two types of production linkages. The first are upstream, backward linkages providing inputs into the commodities sector. The second are downstream, forward linkages leading to the processing of commodities. These are linkages specifically developed in relation to the commodities sector, which serve the needs of other sectors as well.

The production linkage in a countries concerned (commodity dependent), much of the industrial diversification arising out of commodity production occurs as a natural outcome of market forces. This market led linkage development has confounded the expectation of many policymakers and observers who are steeped in an enclave mentality, which has long characterized the operations of the resources sector in low and middle income economies. But notwithstanding market-led linkage development, there remains considerable scope for enhancing the structure and pace of production linkages through effective policy development and deployment. In addition, there remains the challenge of utilizing rents effectively to ensure that the bounty of nature is not squandered in the pursuit of inefficient industrial diversification.

As Hausmann et al, (2007) observe “the probability that a country will develop the capability to be good at producing one good is related to its installed capacity in the production of other similar, or nearby goods for which the currently existing productive capabilities can be easily adapted” (p, 13). As previously mentioned, the potential opened for industrial diversification in commodity intensive economies reflects a combination of three factors. The first is the availability of resource rents which can be used to fund the development of industry in sectors unrelated to commodity production. These are referred to as fiscal linkages from the resources sector. The second is the demand created for domestic manufacturing and services through the incomes earned in the commodities sector the consumption linkages. Third are the production linkages which arise in producing inputs for the commodities sector (backward linkages), in the processing of commodities (forward linkages), whereby forward and backward linkages generated in meeting the needs of the commodities sector also meet the needs of other sectors. In other words, production in a particular sector has two economic sectors. If production is increased in one sector of the economy, then production in other sectors whose products are used as inputs to that sector will also increase. This type of interaction is termed backward

linkages. An increase in the same sector's output, on the other hand, means that an extra amount of its products is available for use as input to other sectors. This is termed forward linkages (Farooki and Kaplinsky, 2011).

Examples of sectors that can be considered weak links are the energy production or oil refining industries, whose products are broadly, used by other sectors as intermediate inputs, and which have a non-negligible, non-tradable component. Energy is required by almost every sector, and while oil is highly tradable, energy production can be highly non-tradable. Low levels of productivity in energy production will imply higher costs for users of energy, and might constrain diversification into new sectors as their expected profitability falls. Thus, the presence of weak links may lead to higher levels of concentration (Diop, et al, 2012). This result has some interesting policy implications, at least in terms of the timing of industrial policy reforms. Policies aimed at diversifying the production process should first try to address the region's weak links. Otherwise resources may be wasted in trying to diversify into sectors that are not economically viable. The findings in this context suggest that if governments first address the existing weak links in their economy, diversification may naturally follow (Diop, et al, 2012). If addressing weak links may sometimes seem like a daunting task requiring large infrastructure investments with a long-term objective, greater efficiency of domestic inputs is important for addressing weak links and encouraging diversification.

Rostow (1956) in his “take-off” theory, for example, adopts this approach, and goes on to say that successful industrialisation is unbalanced, in the sense that a single or limited number of activities are the source from which an initial acceleration ramifies through the economy. In his clarification, such activities have three channels of effect upon the economy: forward, lateral (which attempts to bring technology into the analysis), and backward linkages, of which the latter has conquered historically. Furthermore, he argues that the capital goods industry is a major stimulator of impacts, and its presence in the economy

is a good index of the extent of industrialisation and probability of its extension. Auty (2001) implies that dependence on primary exports for any length of time will result in “predatory” and “factional governments” both of which might be associated with poor economic performance. Thus “the economy is locked into a staple trap in which burgeoning slow-maturing industry and bloated public service depend on transfers from commodity producing sectors with waning competitiveness whose share in GDP declines due to both diminished incentives and ongoing structural change” (p 4). The staple trap is defined as “a dependence upon one out of a handful of commodity exports with declining viability and shrinking size relative to GDP” (*Ibid*, p.8).

One more adverse impact of commodity dependency that hinders or has a negative impact is the ‘staple trap’, where resource abundant countries tend to rely on commodity exports, hence postponing industrial development. As a consequence urbanization (which is favourable for the process of human capital accumulation) is retarded and the labour market is postponed, hence the number of rural labourers becomes overwhelming and raises income inequality as they must rely on producing raw materials (Auty, 2001). As a result, resource abundant countries can only specialize in producing raw materials, as the production of staples becomes more capital intensive where they are imported, hence labour becomes of less use in the production and the processing of the raw materials, which is done outside of the country (Baldwin, 1956).

In summing up, dependence on export earnings from a narrow base of commodities has created a downtrend in growth and income. The adverse impacts of commodity sector specialization are the long term declining terms of trade, and staple trap. Due to market instability the direct effect on growth is through the contribution to GDP, and indirect effect through GDP per medium of spread effects. The indirect effect as holds by Hirschman-type linkages is weak backward and forward linkages. Thus, commodity dependent developing countries came to realise the limitations of dependency on non-oil exports. The

key challenge for them is to transform their resource wealth into a portfolio of other assets that support sustained development, and thus avoid the boom-bust cycles that stem from volatility in natural resource revenues (IMF, 2012).

The third principle thought of theoretical view will introduce the typical portfolio approach, as proposed by Markowitz (1959). The national wealth framework suggests that to reach the objective of diversification of economic output it is necessary to diversify the portfolio of assets in the economy. It was made known that the portfolio approach could assist in designing diversification programs that enhance performance. In particular, it focuses on the potential for export diversification to meet the goals of sustained export earnings growth and enhanced stability for commodity exporter's economies. The main objective for introducing this approach is to provide a better understanding of the portfolio approach and its application in export diversification. Indeed, as noted, the concentration of activities in resource-rich countries is associated with erratic growth; so the natural policy response has been to push for export diversification.

2.1.3 Portfolio Approach: Reduction of Portfolio “Risk”

Since its inception five decades ago, the modern portfolio theory gained its importance in the literature developed originally by Markowitz (1959), which provides the theoretical foundation for diversifying portfolios. The thought is that diversification across various regions can lower the risk of an investment basket for a given return. Based on the common adage “Don’t put all your eggs in the same basket” and encouraged by modern portfolio selection theory, diversification has come to be regarded as a means of reducing a country’s dependence on a particular product or a very restricted range of primary products generally exported before processing. Many developing countries with low economic growth which relying heavily on a handful of commodities for income and employment would benefit from diversifying their economies by

selecting export portfolios that optimize market risks against anticipated returns. The portfolio theory can be used to quantify diversification benefits for a country. From this earlier literature, it appears that because export instability causes substantial costs including unstable demand and more risky investments, sustained economic growth requires a shift from dependence on a limited number of export products towards a diversified export portfolio; infant industries encouraged by protection would increase diversification.

Theory suggests that stability is achieved by spreading risk over many activities (i.e., diversification reduces variance). The theory identified the way in which diversification may influence growth or income by expanding the possibilities to spread investment risks over a wider portfolio of economic sectors (Andrei, 2008; Bazhanov, 2008). Portfolio theory provides an approach to financial investment. The theory implies that rational investors will seek efficient portfolios which provide the best risk-return combinations. The right combination, i.e. diversification will provide the greater returns. Based on the portfolio theory approach Strobl (2002) it is fund that considerable welfare gains can be made by moving towards a more “optimal” export structure on the mean-variance efficient frontier. If a country has an opportunity to invest some of its resources in support of one of two industries with equal expected returns, and if one of those industries had a variance of returns considerably greater than the other, the better choice would not necessarily be the 'less risky' of the two on the basis of their respective variances. Therefore, a portfolio is called efficient if it (1) maximises the expected rate of returns for a given level of risk, and (2) minimises risk for a given level of expected return. Diversification has the benefit of expending the possibility to spread investment risks over a wider portfolio. Greater diversification will enhance the average capital productivity in the long-run by providing better investment opportunities at lower risk. A lack of diversification leads economic agents to invest in low return, safe traditional products, rather than in riskier projects with a higher growth potential. The

absence of such possibilities will hamper capital productivity in the short-run and capital accumulation in the long-run (Acemoglu, and Zalbotti, 1997). Diversification across a wide range of industries becomes paramount in order to achieve the desired investment risk and return target.

Markowitz (1959) was a pioneer in forming the model of portfolio selection, using diversification principles which laid down the foundation of modern portfolio theory. Portfolio theory has been widely applied to the analysis of exports. The diversification principle in portfolio theory states that the risk of a portfolio is mainly determined by the interactions among individual investments, rather than by the specific riskiness of each investment. An optimal export portfolio can be created by selecting commodities which together minimise the risk (instability) of export earnings while achieving a given level of export growth rate. Countries seeking to diversify commodity composition of exports of a country can employ this approach to help to maximise and stabilise export earnings. This view sees growth as being the result of adding new products to the export and production basket. Clearly, given strong evidence of a long-run downward trend in its relevant export commodities, a country might explore diversification of its export portfolio to include manufactures and/or services.

This approach argues for a more ample view of diversification. Regional economic diversity has been promoted as a means to achieve the economic goals of stability and growth for nearly 60 years. The sense of the policy is evident and straightforward: diversifying the economic base to achieve growth and stability is akin to diversifying one's personal investment portfolio. As a portfolio (economy) becomes more diversified, it becomes less sensitive to fluctuations caused by factors outside of the portfolio (region). In addition, the greater the number of investments (industries) one has in their portfolio (economy) the greater the likelihood that one of those investments (industries) will grow at a faster rate than the market. In other words, to promote growth ones resources must be channelled into a small handful of high growth sectors,

but to promote stability, one must spread their resources around (Bauer, and Deller, 1997). The notion of diversity refers to the presence of a great number of different types of industries, or can be used or to mean balanced employment across industry classes. The greater the number of industries and the more balanced the distribution of employment, the more diversified the regional economy. If we return to the analogy of one's personal investment portfolio, we see that the interaction between industries is equally as important as the overall performance of the portfolio (Bauer, and Deller, 1997).

2.2 Summary of Key Theoretical Findings

The theories brought by Structuralists, staple trap, and the new portfolio approach are rather different regarding the benefit and cost of commodity dependency or reliance on natural resources for economic growth. Structuralists on the one hand focus on the long run declining global commodity prices, due to their dependence on one or few primary products would lead to a steady decline in the purchasing power of primary products and thus slow growth. As a result, they would find themselves disadvantaged in trading with manufacturing one, due to the deteriorating terms of trade. The disadvantages which are apparently associated with wide fluctuations in earnings, especially export earnings.

The key finding is that heavy dependence on a small number of primary commodity products exposes a country to the negative effects of unfavourable characteristics of world demand and negative supply side features of these primary products. On the demand side, the low income elasticity of world demand of primary commodities can lead to falling export revenues which can be exacerbated by historically downward trends in primary commodities relative to manufactures (PS-Hypothesis). According to their thesis on the terms of trade, we can perceive that one of the major factors motivating the drive to industrialisation was the income elasticity of demand for commodities. That is to say, as incomes grew, so the growth in demand for commodities would lag that

of manufactures and services. Moreover, specialisation in the export of raw materials diverted scarce entrepreneurial activity and domestic investment away from manufacturing. This is because primary commodity sector offered little scope for technological progress and had few external economies. In contrast to a specialisation in commodities, manufacturing provided greater scope for technological progress, for skills development, for the creation of new demand, and for the demonstration effect which was promoting of diversified economic development. On the supply side, the combined effect of lower skills and technology content of commodity production, and its negligible backward and forward linkages with the rest of the economy usually lead to little growth spill-overs (Staples Theory). This means the “enclave” nature of natural resource activities has restricted opportunities in resource-rich countries for the development of backward and forward linkages between these activities and the rest of the economy. Hence, diversifying could help mitigate volatility in export earnings away from traditional exports and is supposed to boost overall growth rates by replacing commodities with positive price trends products and adding value through additional processing or marketing (portfolio approach) because traditional exports face a limited demand due to their low income elasticity and declining terms of trade and to lower erraticism of growth rates as traditional exports are particularly vulnerable to external shocks. It is believed that a diversified national export portfolio can help lower variability in export proceedings by providing a broader base of exports, and improving growth by substituting commodities with positive price trends for those with negative trends. Growth, in turn, may also be improved by increasing the value added of export commodities through additional processing and marketing.

Based on these main findings, it prevails especially in a small open economy like Libya, which depends heavily on the external sector. This is significant because Libya represents a typical example of a single commodity exporter, where these exports form a significant fraction of the country's total exports

reached to 99% in 2006 (World Bank, 2006). In recent years Libya has faced an externally economic problem. Its main difficulty in initiating and sustaining economic growth is not capital shortage. Capital and foreign exchange are continuously earned and accumulated as a result of exporting of oil. However, the economic development was not as impressive as it should have been. What may go seriously wrong is the large extent of dependency on such exports, where in this illustration Libya would be a manifest case. The importance of the external sector to the Libyan economy means that terms of trade is an essential factor in determining the performance of the economy. The long term deterioration affects key macroeconomic variables negatively, namely Gross Domestic Product (GDP), and would reduce real income, thereby lowering savings and investment. Therefore, to lessen the negative impact of terms of trade shocks, in the long run Libya needs to diversify its portfolio into other assets and shift into non-traditional commodities as they are characterized by higher income elasticity, less volatile terms of trade, and higher prospects of dynamic productivity gains, as Hausmann, et al, (2007) have stressed.

In addition, the dearth of linkages between the oil sector and the other sectors of the Libyan economy is a critical developmental problem. The severity of this problem in Libya can be deduced from the fact that many of the sectors in the economy have been declining in performance. There should be strong linkage between the domestic primary production sector and the industries sector to introduce value-added in manufacturing and services to ensure that its revenues from oil are well managed and that the oil is well integrated with rest of the economy. Otherwise resources may be wasted in trying to diversify into sectors which are not economically viable because of the weak links in the economy. The presence of effective linkages is necessary for a balanced growth of an economy, thus it is important that linkages exist between sectors so as to promote an all-round growth and development of an economy. This is to say, instead of having a growth of Gross Domestic Product (GDP) from the

expansion of a single sector, the diversification as used by economists will imply allowing other sectors to contribute to growth of the GDP. Such growth should be more equally based on all economic sectors rather than a booming sector. Through this means, each sector of the economy becomes relevant and important for development purposes.

2.3 Diversification as a Prime Economic Policy Objective

Diversifying the economy away from dependence on oil, gas and mineral exports is a key policy objective to avoid the undesirable consequences, attributable to the failure by a number of oil exporting countries to develop mechanisms that can assist economic growth through economic diversification. It has gained a new urgency as one way to recover long term growth momentum. It also explores new thinking and evidence about diversification and elaborates on policies for its promotion. The relevance of diversification to economic growth and development is not new and it has been recognised as an important tool which has the potential to support the economic structure of oil based economies. In order to achieve economic development, adequate economic resources are necessary. Consistent with a literature that can be traced as far back as Singer (1950), initial diversification is on average positively associated with subsequent growth.

Economic diversification is a key aspect of economic development as it represents a structural shift from the production of low-income country goods (i.e. unprocessed commodities) to high-income country goods (i.e. high value added goods). Chenery's (1979) pioneering works showed that structural changes to production were at the root of the development process. There is a growing consensus that the pattern of economic development is associated with structural changes in production and export and increased diversification (it entails a shift from primary to higher value added manufacturing). However, for a country to achieve sustainable long-term growth, it should not only diversify

from the primary sector into high value added manufactured goods, but combine wherever possible actions to expand the manufacturing sector with measures to strengthen the primary sector and the service sector.

The economics literature has uncovered the notion that productive diversification goes hand in-hand with the process of economic growth and development. At early stages of development are often accompanied by diversification of the production bundle as more economic opportunities become available (Olarreaga and Ugarte, 2012). There is evidence, however, that the relationship between diversification and development is non-monotonic. Relatively recent literature has identified some factors to explain the diversification process. The first factor is linked to the level of income in an economy. Imbs and Wacziarg (2003) and more recently Koren and Tenreyro (2010) have analysed the process of diversification across income levels. The data on production and employment concentration across countries gathered by these authors suggests a robust pattern whereby economic diversification increases with the level of development, until reaching a relatively high level of GDP per capita, after which time economies become increasingly specialized. This means that most developing countries are actually in the diversifying stage over the course of their development path. Another important factor determining diversification is investment, which contributes highly to growth dynamics and to increasing the productivity of new economic sectors (Hesse, 2008).

From this perspective, the historical experience of developing countries shows that a rise in investments always translates into increased diversification of the productive capacity. This investment enables them to access new technologies and improve the productivity and competitiveness of their economies. However, this empirical regularity does not fit the observed pattern of development and diversification in some developing countries, which depend heavily on their natural wealth for their national income, where concentration of production is the most commonly observed pattern in their economies. They usually perform

poorly in economic development, their economies tend to be less diversified, and their per capita incomes often decrease over time. Libya is one of the rare countries where exports remain predominantly of a primary nature. There were numerous pitfalls in the road to economic diversification through the use of resource rents which are often lost in inefficient investments.

Based on these theoretical foundations, the effects of diversification on growth have been analysed by a few recent works (Al-Marhubi 2005; Elbadawi and Gelb 2010) their core outcome is that the diversification towards much more complex assets can stimulate the growth, and this diversification can also facilitate the structural change, especially by increasing the density of the productive system. In one sense, the association runs from growth to diversification, almost by definition. But in another sense, diversification into products can lead to higher sustained growth to the extent that diversification unleashes productivities, and induces externalities and facilities as the country progressively more rapid moves into higher value added production, less macroeconomic volatility, and less elite misappropriation of rents associated with a narrower economic base (World Bank, 2009).

Among the community of researchers (Aissaoui, 2009:1) noted that “economic diversification refers to the process by which values-added are distributed across a wide range of economic sectors in order to avoid the dominance of any given one”. There was common doubt amongst economists about the role of diversification in promoting the economic growth. For instance Crosby (2007) stated that diversification of a productive base could be an important stimulus for rapid economic growth in the long run, which was strengthened with the development of the new growth theory. Diversifying the productive base not only results in increased efficiency but also allows countries to participate in a global economy.

However, there is evidence which demonstrate that economic growth is likely to be not as much as possible to thrive in the primary based resources rather than in well oriented manufacturing economies. For instance, among oil exporting countries, 6 out of 42 have suffered from economic growth failures and have faced tremendous challenges which have hampered the growth of their economic strategies (Middle Eastern Survey, 2008). From this perspective, it is necessary to highlight that due to the increase in the oil price globally, oil producing countries that have not managed to expand their economies, and their economic growth has not been sustained. There is a question which requires particular attention: why have countries with abundant oil natural resources not managed to sustain their economic growth rate? And why have their economic developments remained underdeveloped?

The oil dependency syndrome made oil producing countries realise that relying on only the oil sector was not an economically sustainable strategy, and that other ways should be sourced (Fasano and Iqbal, 2003; Gylfason, 2006). The problem of reducing the dependence on the oil economy to generate revenue was not seen as the best economic programme for the long run. In this regard, the reduction in the economic dependence on oil and gas earnings was considered as inappropriate at that particular period, because countries had no choice other than ensuring that the oil and gas sector constituted the main source of national revenue. With the advent of the economic crisis and market price fluctuations, accompanied by the shift in the national budget requirements, oil producing countries have developed a need to adopt a strategy to reduce their dependence on oil and gas as the main sources of the state's budget. The oil and gas dependence reduction strategy was anticipated for two specific reasons. The first reason implied that developing a non-hydrocarbon sector which helps to support the country's economic growth in a situation where the oil generated revenues has been depleted. Secondly, the alternative economic strategy based

on the non-oil sector will in fact ensure that countries macroeconomic stability is attained (Aissaoui, 2007).

The fact remains that there is no way in which any of oil exporting countries could have grown as rapidly as they did without the rapid growth of diversification. This argument suggests that diversification is crucial to sustaining high rates of economic growth, and to reducing growth instability. Based on the study by UNECA (2007:11) make clear that “Diversification policies needed at three levels; firstly, macroeconomic policies in order to support economic diversification, secondly, trade and sectoral policies to make stronger diversification, and finally, strengthening institutions to enhance diversification efforts”. Diversifying the production bases in this manner has played a key role in helping countries to not only achieve higher growth rates, but also to sustain these growth rates over a long period (Andrei, 2008; Bazhanov, 2008).

A large number of middle-income economies are heavily dependent on oil resources. Thus, an economy where oil resources contribute to more than 10% of the GDP and 40% of the export basket (e.g. oil) is commonly called oil based economy (Ahrend, 2006:3). There has been a broad discussion about the role of oil resources in contributing towards development, with different points of views (and different supporting policies). One approach suggests that countries plentiful in oil should focus activities away from oil. The main point of view is that oil, as well as other natural resources are sectors with decreasing returns of scale, with few linkages to the rest of the economy, and whose markets are stagnant (Gelb, 2010). Therefore, it is very risky for an economy to depend heavily on a limited number of sectors, because it would be exposed to adverse effect caused by external shock, and the impact of such economic factors, for instance: oil resources depletion, price fluctuations in the international market, and economies of scale, which may mean the country experiences difficulties in achieving sustained economic growth.

It may be beneficial, or not, for a country being a resource based economy. Firstly, natural resources provide a country with the revenue needed to finance its budget. These revenues are very important, because they ensure the ability to import basic goods which the country is unable to produce domestically. Natural resources can be exploited to increase welfare. However, according to economists (e.g., Ahrend, 2006; Gelb, 2010) the growth rate of a resource based economy would be relatively low. In addition, as underlined by Collier (2007) in the long run, economies based on natural resources, and particularly the oil sector, are likely to not produce enough. Therefore, the natural resource will be deemed to fail in contributing to the speeding up of economic growth and its eventual achievement of sustained economic development. This is more likely to be attributed to diverse effects of the richness of the natural resource environment. On the other hand, Gylfason (2006) argues that despite the effects of plentiful natural resources on economies, the acknowledgement is that the abundance of oil resources from the environment might also provide opportunities for economic growth and therefore stimulate the economy recovering in cases where economies have failed to take off toward expansion.

Diarra *et al.* (2010) stress that better diversification opportunities enable a gradual allocation of resources to their most productive uses and reduce the erraticism of growth. It is believed to be important for developing countries often highly dependent on relatively few primary commodities for their export earnings because it makes their economies less vulnerable to negative terms of trade shocks and promotes growth and job creation. The robust positive effects are usually associated with diversification into manufactured goods, and its benefits include job creation and learning effects, and the development of new skills and infrastructure that would facilitate the development. Originally, the main emphasis in this perspective was on how to enhance primary sectors products (Elbadawi, 2009). This means that the diversification of production

should not only involve a movement towards new sectors, but also needs to shift towards sectors for which development is correlated with the rest of the domestic economy. Moreover, in order to help countries to become less dependent on sectors of activity based on the exploitation and exportation of oil resources, diversification should be able to draw on a dynamic private sector with access to skilled workers and develop a favourable institutional and legal environment. This change has been found to be due to the actual and potential economic benefits achieved by this strategy, according to oil developing countries. The benefits of the diversification strategy have led not only to the adoption of diversification by many countries, but also to a mushrooming of many studies to test the empirical strength of the theory.

The note reviews and extends the evidence from the existing literature point to diversification as an important aspect of the development process. This relationship raises the question of how the former can go in parallel with the latter. One argument is that diversified economies perform better over the long term. There is strong empirical support for this proposition; Hesse 2008, Lederman and Maloney 2007 provide analysis and useful summary. The results is robust, there is a fundamental link between economic development and diversification. The former is generally defined as the process whereby the real per capita income of the country increases over a long period of time without increasing income disparity. It is also established that countries experiences the similar set of structural transformation as their per capita income rises, which include, an increasing share of manufacturing in GDP and in total export. Hence, the goal of development economics has been to identify policies for diversifying economies, which would lead to an increase in per capita income, improving the quality of people's lives, and achieving a more equitable distribution of wealth. This outcome would shift us to a new line of argument in terms of economic growth and development, and their relevance to oil dependent economies. Nowadays, few scholars support these views concerning

the role that an abundance of resources can play in economic growth and development. In other word, economists have come to see rich oil endowments as course that undermine development and slows economic growth, (Ahrend, 2006). Thus, economic diversification is an integral part of economic development and is, in fact, a consequence of economic development, rather than the other way around.

A number of economic studies that concerned the efficiency of diversification, (see for instance, Collier and Gideris 2007; Page, 2008) argued that economic diversification often seems to be vital for oil-based economies, owing to two reasons. Firstly, many of them are often highly dependent on relatively few primary commodities for their foreign earnings. Second, unstable prices for these commodities may subject these countries to serious global shocks (Aissaoui, 2009). As a result, diversifying an economy will support the performance of that economy when flexible strategies are put forward in order to enable the country's economy to develop adaptive capability mechanisms to withstand endogenous internal and exogenous factors. However, economic diversification can support economic performance in resisting external and internal pressures through the use of a mechanism that permits economies to reduce the risks that are likely to come about from the pressure of export-led economies.

However, the economic situation will mostly depend on the conditions and economic policies pursued by the government in the country. If economic conditions and the right policies are put in place then economies are likely to start growing and advancing towards the stage of economic growth. An ample economic permanence is not an easy goal to achieve; it requires commitment so that appropriate conditions are created, aimed at sustaining the economic environmental set up. The economies which are recognised as more abundant will take over insufficient economies where there is a limited supply of oil resources. In addition, Auty (2001) highlighted that the exportation of oil as

natural resources are often associated with growth in a negative way because of the fact that oil exports are conditioned by reduce the risk of economic uncertainty. The oil industries market is characterised by uncertainty (instability) in economic growth as measured by long run GDP and GDP per capita growth rates. This implies that Libya need to implement a strategy to avoid the negative consequences of declining growth rates in GDP and GDP per capita and uncertainty related to a drop in oil reserves by using its oil production. Given Libya's heavy dependence on oil and the fluctuation of oil prices, the ability of the government to stabilise the total earnings is uncertain. Uncertainty about the availability of government revenues is thought to complicate further the already difficult task of development planning. Moreover, uncertainty is taken to affect private investment. It is important to stress that both elements are at risk, which would affect the growth in one way or another. This is mostly observed in economies where the oil constitute the principal source of income. The negative association with growth is only observed in the short-run period not in the long-run period because this period influences the oil led economies tremendously. Thus, the major policy implication from our findings is that the fulfilment of long-run sustainable growth and development strategies in Libya requires various sources of growth, including stimulating and enhancing non-oil sectors, notably manufacturing value added.

Based on the study by Aissaoui (2007), countries that are recognised as oil exporting have specific features which mean they are regarded as high contributors to the world's oil production, in relation to the volume of the GDP and to the total quantity of exported oil to other world economies. However, these countries might have undergone a high degree of risk of their natural resources becoming very limited due to the effects of over-exploitation of oil for the world market. In this perspective, governments across the globe have become more interested in oil dependent countries diverting away from the oil sector as the sole source of economic revenue regeneration. The fact that

countries have abundant oil resources does not necessarily mean that they have the capability for sustainability in the long term. However, this is not the main condition needed for economic growth, unless policies are implemented effectively.

As a matter of fortune, oil exporting countries have their revenue as an important source of income. However, the difficulties of these oil dependent economies, at least in some periods of time for instance during the oil boom of the 1970s, is how far they are able to deal with this type of risk which may cause huge losses of revenue, which so often plagues developing countries with vast natural resources. A typical phenomenon in Libya has been that, during oil boom years, large expenditure programmes were initiated, but during the subsequent period of lower oil prices and lower government revenue, these programmes were cut back or postponed. The oil booms of 1973 and 1979 brought unprecedented income to Libya but, despite the substantial oil revenues, much of the potential benefit of the windfall has been dissipated (Edwick, 2007). The reliance of public finance on a single sector means that shocks threaten the economy's fiscal balance and stability. Libya has over-consumed in response to windfalls from surges in world prices. Libyan government spending has outstripped the gain in revenues. These sharp increases in government spending are difficult to reverse when the boom ends and often lead to large fiscal deficits rather than surplus. The fiscal deficit records of the late 1980s, and of the early 1990s, were financed by recourse to domestic borrowing. The debt-to-GDP ratio increased from about 30% in early 1980 to about 50% during 1999-2000, as a result of the oil price volatility (World Bank, 2006). Therefore, it seems possible for such oil developing countries to mismanage and waste their resource revenues. Natural resources, especially oil-led development is often promoted as a key path for countries seeking sustained economic growth. Economic scholars such as Karl (2007:2) argue that a country lucky enough to have oil can base its development upon this resource. He indicated the prospective benefits from

enhanced economic growth and job creation. It means broadening the economic base of other non-oil economic activities to such an extent to enable to minimizing the degree of dependence on oil revenues as sole instrument of development. However, the experience of Libya thus far illustrates few of these benefits. .

Collier (2007) pointed out that countries rich in resources tends to achieve higher levels of income. However, they still have extremely high level of poverty, and have had negative outcomes to provide secure living standard for their entire population, which in turn resulted in to endure difficult economic straits due to abuse of their resource for many years. Rosser (2006:7) argued that “rather than a blessing, dependence on an abundant oil resource increases the likelihood that countries will experience negative economic and social outcomes including poor economic performance, and low levels of income”. Countries that have an abundance of natural resources including those in MENA often did not make rapid economic progress for reasons that seem to be related in part to poor management of their natural resources. The consensus in academic literature is that the presence of abundant natural resources poses a number of potential challenges to these countries. Arezki, et al, (2011) underlined five of them can be readily identified:

- a. Inter-generational equity: some natural resources are exhaustible and sustainable consumption across multiple generations requires a sound policy framework for natural resource revenue management (IMF, 2012).
- b. Macroeconomic and financial volatility: high vulnerability to fluctuations in commodity prices, dependence on natural resources exposes the country to volatility of commodity prices and terms of trade shocks.
- c. Economic concentration: without proper macroeconomic management, commodity booms can lead to reduced competitiveness of the non-resource tradable sectors via an appreciation of the real effective exchange rate and a related distortion of investments towards resource and non-tradable

sectors; this effect exacerbates economic volatility. Economists, for instance Noh, (2013) attribute these negative consequences to two main reasons. Firstly, the state's reliance on natural resources leads to economic distortions that retard growth. For instance, a surge in natural resource exports would drive up real exchange rate and hence makes it difficult for states to develop other sectors like manufacturing and services. Second, receipts from natural exports tend to make state invest in unproductive non-traded sector given the tendency for states to concede to public demands to distribute earnings.

- d. Social and environmental pressures: subsoil commodities (metals, minerals, oil and gas) tend to create limited employment and their extraction and subsequent processing can have significant environmental impacts. Agricultural and forestry commodities can also have a significant environmental impact and while these commodities generate more employment opportunities, wages tend to be low.
- e. Institutions: High dependence on commodities can have a negative impact on institutions (World Bank, 2011). Commodities that involve significant rents create conditions for corruption and elite capture, especially when institutions are weak prior to resource development. The dependence of fiscal revenues on a narrow base reduces the overall tax effort and may dampen accountability in addition to increasing exposure to volatility. Another important body of literature suggests that natural riches produce institutional weaknesses. Tornell and Lane (1999) described the phenomenon where various social groups attempt to capture the economic rents derived from the exploitation of natural resources as the “voracity effect.” Subsequent refinements have focused on “point-source” natural resources i.e. Those extracted from a narrow economic base, such as oil or minerals. Rent-seeking behaviour can undermine governance and exacerbate the difficulty of building robust, growth-enabling institutions.

A number of empirical studies have established that oil dependent countries are likely to be poor in terms of economic performance in three areas. Firstly, oil rich countries, show low long term growth rates compared with non-oil economies (Auty, 2001). Secondly, their real output and government revenues experience more instability because of changes in commodity prices, shared with an undiversified income and export bases. Thirdly, despite their oil rich resources, the majority of these countries are ranked as severely indebted states and also have huge external debt, which in turn usually exposes them to exchange rate variations coupled with unstable oil prices. In other words, oil exporting countries that experienced export booms in the 1970s have seen a decline in their manufacturing industries and consequently sometimes in agriculture (Auty, 2001). On the other hand, economic believers (e.g., Solomon, 2000) stated that abundant natural resources can be a successful driver of economic growth. Theoretically, in the case of the oil sector, there are two strategies to better utilise oil to strengthen the non-oil sector, such as a direct attempt to diversify out of oil, and an indirect route to end the dependence on oil, which may need a long term strategy and vision. Hence, the role of adopted strategies is crucial in this regard. Previous empirical studies, covering most oil developing countries, provided evidence of a relatively slower rate of growth in the resource rich countries over the past four decades. Empirical research has found a negative relationship between resource abundance and growth (Sachs and Warner, 2001). The association between an abundance of natural resources and growth is so robust that the ratio of GDP is now used as the standard indicator in cross-country empirical literature on determinants of per capita income growth.

Auty, (2001), and Sachs & Warner, (2001) tried to establish a negative relationship between an abundance of natural resources and poor GDP performance. Most influentially, Sachs and Warner (2001) have argued empirically that since the 1960s, resource-rich developing countries have grown

more slowly than other developing countries. Consequently, we find ourselves in a time when the conventional wisdom again postulates that natural resources are a curse for development, contradicting the common-sense view that natural riches are riches, nonetheless. For the most part, the evidence appears to support the negative link.

In a cross-country regression analysis of the growth performance in a sample of 83 developing countries over the period 1970–1990, Sachs and Warner (1997) concluded that resource abundance, measured as the ratio of primary commodities exports to GDP, was negatively correlated with GDP growth. They estimated that a doubling of the share of primary products in total exports between 1970 and 1990 led to a reduction in the annual GDP growth rate of between 0.62 to 1.51 percent. They found only two countries in the list of resource-abundant countries Malaysia and Mauritius that sustained even 2% per annum growth during 1970-80. Their results were statistically significant after controlling for a variety of explanatory variables affecting growth rates. The reliability of their empirical result was tested with different indicators. These are the presence of oil in exports, institutional quality, commodity price shocks and resource abundance (the ratio of mineral production to GDP, the share of primary exports in total exports). They used the ratio of primary GDP as their main signs of natural resource richness. One of their main findings was that “a one-standard-deviation increase in natural resources export as a fraction of the GDP would imply a slower rate of growth on the order of one percentage point per year” (p. 27).

Similarly, Auty (2001) found that “between 1960 and 1990, the per capita incomes of resource poor countries grew between two to three times faster than those of the resource abundant countries” (p. 3). Auty’s examined whether natural resource abundance had a negative effect on economic growth if one measured growth in terms of ‘genuine income’ that is, GDP minus the depreciation of produced and natural capital rather than GDP. He found that it did.

2.4 Exhaustible and Non-Renewable of Oil Resource

It's been realised that overreliance on one single commodity exposes the national economy to domestic and external factors. Over the years the hydrocarbon impact on an economy has been discussed by many economists (see for instance, Collier & Goderis 2007; Karl 2007; Gelb & Grasmann, 2009) have demonstrate that oil and gas revenues have many benefits if the countries have utilised them successfully. On the contrary, oil resources exhaustion raises the issue of economic sustainability. Oil is a commodity with special features namely; it's possible depletion (Karl, 2007). In this subsection we intend to shed some light on the theoretical foundation underlying diversification for sustaining Libyan national wealth beyond the exhaustion of oil. The country's economy is one of the major oil exporting countries in the Middle East and North Africa. However, its prospects for production and revenue projections are surrounded by considerable uncertainty, for instance cuts of production, the demand of oil might fall, there may be a drop in oil price (commonly OPEC related), and most importantly, is the country could run out of its oil reserves. This could lead to a loss of up to 60% of the country's GDP, due to its heavy reliance on oil.

As noted earlier, the first critical issue that needs to be highlighted is the limited extent of the petroleum resources to meet long-term growth objectives. A study by Anderson (1998) still reject the idea that primary production can contribute sustainably to long-run economic growth for another reason, namely, the finiteness of the natural resource base on which that production depends. In this context Cinti (2008), clarifies that oil based economies are starting to move towards sources of growth due to the evidence of coming oil depletion. The biggest problem arose when oil revenues begin to dry up. Stevens and Mitchell (2008) clarified that reducing dependence on oil earnings is desirable for two reasons. First, it implies the growth of the non-oil sector in the economy develops as an alternative for when oil revenues decline through either depletion or the lack of a market. Second, it protects the economy from its macroeconomic

vulnerability to volatility in oil receipts. Consequently, Libya's must deal with the fundamental fact that its oil wealth is exhaustible, otherwise the country might risk entering the second half of 21st century within depleted oil resources, financial assets eroded by much larger population.

The economic theory and the oil economic literature (e.g., Bergs, 2004) provides a useful context for the present study of Libya. The subject of the importance of the oil revenues for Libya has been researched and there has been an agreement that the structural dependence on this asset is the national source of wealth, but is also a major factor of economic uncertainty. In the more distant future, there are greater uncertainties about the growth of global oil demand, especially in developing countries. In the long term, it is difficult to predict the level of oil production prospects due to uncertainty over the level of reserves.

Libya's economy is vulnerable to any disruption of crude oil production. This vulnerability is actually becoming more acute because Libya's oil production is declining. For almost fifty years economic growth of Libya economy has relied almost solely on oil reserves. In view of increasing demand for oil crude (both in absolute terms and as a percentage of annual consumption) from other emerging economies, (e.g., Brazil, India, and China) this may cause oil demand to increase by up to 50% for the next decade (EIA)¹, with a corresponding increase in prices, the awareness of the issue has worst when reached its peak in the 2008 at 100\$. This analysis suggests that within the 21th century the supply of conventional oil will be unable to keep up with demand (Cinti, 2008). These nations are thus becoming increasingly dependent on producer nations for the oil they need to support their economic growth. Thus, any disruption of the oil supply would lead to shortages in their raw material they use in many of their manufacturing products. Most of the future demand growth is likely to occur in

¹ According to EIA oil world-wide demand is expected to increase in the first quarter of this century.

emerging economies, with China further enhancing its already important position as a commodity consumer. This would imply that, China and India are scrambling to secure as much oil as they can to satisfy the needs of their growing economies. Alnasseri (2005) stated that oil is a non-renewable and depleting resource on which the world has become dangerously dependent. This in itself should be cause for nations to find ways to reduce their consumption and thus their dependency.

The African Development Bank (2009) suggests that with the current rates of production, Libya's oil reserves are not expected to last beyond the second half decade of this century. Albeit that oil production and revenue projections are surrounded by considerable uncertainty. There are significant risks to future levels of Libya's oil production depending upon OPEC's pricing and production policy (and other market factors), and whether Libya remains a solid member of OPEC and maintains its current share of OPEC output. It is possible that the demand for OPEC oil will increase very little. In such a situation, Libya's oil revenues will be much lower than projected, and the country may end up with sizeable surplus capacity in the medium term. In the more distant future, there are greater uncertainties about the growth of global oil demand (World Bank, 2006).

An argument about when the oil will run out is far less important than understanding the impact it will have on national economy. As there is no definite source of knowledge on how long oil can continue to be extracted, it is imperative to know how long Libya can benefit from this resource. So far economic study debates have not confirmed the peak of oil output in Libya. Such inadequate data and inaccurate information does not tell us when oil production will peak. Oil depletion projections are uncertain. Therefore, in recognition this fact, recent economic study conducted by Word Bank (2006) has used "probability" projections in order to anticipate "Peak Oil" and the impact of oil depletion on our economy. According to the U.S. Geological

Survey (USGS) assessment of the world's oil and gas reserves, it places Libya's mean oil reserves of undiscovered oil at 8.3 Bbl (billion barrels). The USGS includes probability ranges for reserves actually occurring, and places an upper estimate for oil at 15.3 Bbl at 5% probability. In spite this simplified estimate but illustrative scenario provides a wide range of expected oil reserves of this country.

In this context, Aissaoui (2009) indicated that taking into consideration the continuation of a steady rate of oil production, demand, and technology pattern. hence, the five decades assumed for depletion or estimated of oil world reserves does not utterly deny the possibility of increasing this number as long as the rates of production and technology factors are changeable and subject to progress. This estimated figure is the outcome of multiplying proven oil reserves by oil annual production (daily production multiplied by 365 days). In this sense no account has been taken of potential reserves nor that prices are associated with the conditions of production, technology, and oil reserves. Thereby, oil is a non-renewable source; any income generated directly from it would be solely increases in its value in the distance future is subject to the risk of likely technological change that would reduce demand and decrease prices, which will lower the cost of production and shift supply curves outward. The limitation of oil resources is indeed uncertain in the near future, because of the over-exploitation of natural resources and the dependency of countries on maintaining exploration oil drills. This causes the natural resources to deplete.

Importantly, it is necessary to recognize that for natural resources to become critically depleted, would take a number of years. The critical point in this context simply means that the natural resource reserves no longer have the capacity to contain the required quantity necessary to sustain production. When a country reaches that point it has to look at other alternative sources to keeping its economy growing. Beyond the need of building a solid economic base that would endure after natural resources expire, economic diversification is a key

pillar to shielding domestic economies from underpinning and relatively uncontrollable risk factors related to global demand and supply shocks. Hence, the objective of sustainable economic growth cannot be achieved by depending on one single source of income is usually limited, and running out when the resources are exhausted or decrease. From this perspective, diversification has become an economic policy priority to ensure the creation of a viable economy that would sustain economic growth in the aftermath of the oil era (Hvidt, 2013:11). In other words, to promote growth ones resources must be channelled to a small handful of high growth sectors. Obviously, the country receives something in return, but from a long-term sustainability point of view, this reduction should ideally be compensated by the accumulation of other asset forms such as physical and human capital. An abundance of non-oil assets, such as machinery, equipment, and human capital are renewable, in that they can be used to produce new goods and services thus replacing themselves as well as generating consumable income.

In this context, the sustainability rule developed by Solow (1974) and Hartwick (1977) emphasises the importance of reinvesting rents from natural resources to acquire and accumulate renewable capital so as to generate a sustained stream of income. In 1973, at the time of the first oil crisis, the economics profession turned its attention to the question of sustainability: If an essential resource like oil is finite in extent, can economic output be sustained forever, or will output eventually begin to decline? Solow (1974) showed that consumption can be sustained even with a fixed production technology as long as the share of the exhaustible resource in production is less than that of produced capital, and there is sufficient substitutability between the two production factors. Hartwick (1977), in a justly famous result, showed that underlying the Solow finding is a simple policy rule: invest resource rents in other assets. The theoretical explanation is that most of primary commodities are exhaustible, which raises the question of equity across generations and the necessity to invest the rents

from natural-resource extraction into reproducible capital in order to enjoy a constant stream of consumption, following the so-called Hartwick rule (Hamilton and Hartwick, 2005).

In an economy that lives purely by resource depletion, income in the sense of net national product is always *zero*, even though wealth is positive. In other words there is no sustainable positive level of spending in this framework. This makes intuitive sense: The economy has a fixed resource base that can only change in one way, downwards. So, potential welfare must drop as the resource is consumed (Heal, 2006). However, access to capital markets makes a big difference to this finding, and, in fact, overturns it: With access to capital markets it is possible to get a sustainable spending level and a *nonzero* income. Imagine that, instead of producing the resource gradually over time, the country sells the entire stock of the resource at one go and invests the proceeds: Now the interest on this investment gives a sustainable consumption level. Indeed it is precisely what Hicks (1939) called income: That is, income is the return on capital. Hicks's main finding is that economic sustainability can be seen as the amount one can consume during a period and still be as well off at the end of the period; this definition involves consuming interest, rather than capital. He proved that if consumption was to be held at a constant level, a resource producer must invest the resources which it extracts. This theoretical understanding of permanent income hypothesis is explored through a simple calculation. The constant stream of the permanent income from oil and gas production is calculated using the following formula, with M referring to the annual income received from oil production, (y) as the number of years of investments, (r) as the real rate of return on investments and X as the real income received:

$$X=M \left[1 - \frac{1}{(1+r)^y} \right] \dots \dots \dots \quad (1)$$

As a simple exercise, assume that M is RM5 billion in oil revenue (in real prices) collected over 28 consecutive years of oil production, while the expected real rate of return (r) is 5%. In addition, assume that after year 28, the oil and gas reserves would have been exhausted. The estimated permanent income would be:

$$\text{RM5 billion} \left[1 - \frac{1}{(1+0.05)^{28}} \right] = \text{RM3.72 billion} \dots \dots \dots \quad (2)$$

To obtain this, the government would then need to invest RM1.28 billion into the resource fund (RM5 billion less RM3.72 billion). By doing so, this means that from the first year when oil and gas tax revenues are received, and in each subsequent year, the value of the principal and the returns generated would be sufficient to return a total RM3.72 billion. After the 28th year, income earned on the investments and the underlying principal would be sufficient to continue providing RM3.72 billion a year in revenue indefinitely. Through this simple exercise, it is clear that two items should be considered: namely the adequate long run income expected from the resource fund to ensure a path of sustainable consumption for future generations; and an appropriate savings level to attain a desirable outcome (Verghis and Sander, 2013). As a result, it was very difficult to find trustworthy and comprehensive Libyan potential oil reserve data. Published statistics are unreliable and subject to broad interpretation. Despite the dire need to address the twin issues of oil reserves and depletion, there is almost a dishonest lack of reliable information on these subjects. It's not possible to escape the negative impact of oil depletion. But, such risks are can only be mitigated by preparing for substitute sources of wealth that will lead to more a diversification, so that when Libya's oil resources are totally depleted, the drop in GDP is far less dramatic. That shifts the burden of research; in brief, our current reliance on oil is unhealthy and unsustainable. It is imperative for Libya to find ways to wean its economy from oil dependency as soon as possible.

2.4.1 Growth Volatility and Risk Reduction

Economic researchers (e.g., Cinti, 2008; Moore & Walkes, 2007) think that the finite oil era has become closer than most economists believe. Price trends could be a proof of that. While high oil prices would be challenge enough for oil dependent countries in managing their economies, volatile prices make matters much worse due to the future growth of oil prices being uncertain, and hard to predict. Oil prices (and hence revenues) tend to be very volatile, the tendency of oil-dependent economies to experience frequent and oftentimes extreme volatility has been proposed as an alternative explanation for the curse. As pointed out by Hausmann and Rigobon (2003), in an economy where oil accounts for 20% of the GDP, a one-standard deviation shock to the price of oil can generate an income shock as high as 6% of GDP. However, in countries where GDP increase from oil is not significant, GDP volatility is relatively smaller, from 2 to 3 percent. The failure to cope with this extreme volatility, it is argued by Devlin and Lewin, (2004), has been the main factor behind the post-boom economic collapse experienced by most oil-dependent economies. Their output as well as government revenue experience higher volatility due to fluctuating commodity prices combined with undiversified revenue and export bases. In economies totally dominated by an oil sector, these issues become extremely entrenched and affect their long term growth potential.

Typically, changes in oil prices seem to be the dominant factor affecting economic growth, especially in a relatively small economy like Libya, where capital and labour have little or no impact on economic growth, which is an indication of the great importance of oil sector in the economy. Given the recent increases in the international prices of crude oil, the implied windfall gains that these countries have been accumulating, and the potential macroeconomic volatility that reliance on oil can introduce in the economy (Carneiro, 2007). Like other oil-producing countries, Libya was exposed during 1991-2002 to important terms of trade shocks, stemming from the volatility of the price of oil.

But Libya's exposure to terms of trade volatility was particularly severe, reflecting the poor diversification of the economy out of hydrocarbons. These large terms of trade shocks translated into relatively high volatility of non-oil GDP growth as suggested by international experience, "high volatility is a factor of poor long-term growth performance and might be painful for the society as a whole" (World Bank, 2006:18). As a result, the economic growth of oil based economies seems to be intimately associated with the movement in oil prices. This is possibly due to the significant role of this sector, because many of these economies gain 40% or more of their income from oil exports. The instability of oil prices leads to an equivalent instability in fiscal cash flow. One channel for the adverse linkage between resource dependence and growth is volatility (Gelb, 2010). Such instability might induce short macroeconomic instability and generate uncertainty in the economy, which in turn affects the supply of savings and investment. Such instability induces higher levels of uncertainty, which in turn increase interest rates, and hence the cost of borrowing. As a consequence, foreign capital and domestic saving may leave the home country in search of more stable foreign investment markets. In other words, uncertainty, in this case, leads to risk-averse behaviour. Potentially this volatility could cause a variety of problems. This creates problems in the economy ranging from aggravating investor uncertainty to "stop go" spending policies. There is also concern that windfall revenues from fluctuating export prices would be consumed rather than invested. Gylfason (2001) argued that the level of domestic investment was inversely related to dependence on primary product exports.

An economy which is heavily dependent on primary commodity exports is prone to the changes of global commodity prices which tend to fluctuate every period, and cause income instability, hence resulting in internal instability, reduction in investment and diminished economic growth (Blattman et al. 2007). For instance, during the mid-1980s, falling resource prices led to the temporary worsening of terms of trade. Combined with the economic slowdown in 1985,

this led to a crisis in the real and financial sectors. This contraction in the economy led to companies having cash flow problems, and caused high debt problems. The other argument is that sharp fluctuations in commodity prices cause commodity dependent countries to have increasing external debt and difficulty in servicing their debt. Where these countries increase their external loans to finance the booming commodity, if prices fall, they may fail to service their debt and suffer from instability in terms of trade, and decreased export revenue. Hence capital inflows shrank as price shocks reduced the effectiveness of their investment, resulting capital account shocks leaving these countries vulnerable to financial crises and poor growth.

The high level seen in Libya may further increase the risk prima faced by investors, thus hampering efforts to promote private investment in the coming years. The resource-rich countries have faced declining terms of trade over time; that instability in international commodity markets can be transferred to the domestic economies of resource rich countries in turn affecting the reliability of government revenues and foreign exchange supplies and dramatically increasing risks for private investors (Collier, & Goderis, 2007). Volatility in key macroeconomic variables such as the terms of trade, inflation and real exchange rate, heightens uncertainty, lowering the risk-adjusted returns on investment, and hence leading to lower private investment. In Libya, policy was unable to insulate the economy from the cycle of oil. Changes in domestic investment, with a multiplier impact on domestic demand, have been the main source of volatility of non-hydrocarbon GDP growth. Swings of domestic investment have been closely associated with volatility in oil revenues. In the non-oil sector, volatility has been particularly acute in industry. Since the early 1990s, in industry the standard deviation of growth has been more than three times higher than the average growth rate, volatility comparable to that of the oil sector (World Bank, 2006).

Identifying oil dependency and issues related reviewed in the relevant literature make clear that countries dependent on oil exports seem particularly susceptible to policy failure (Karl, 2007:663). Thus, dependence on oil as a major source of export earnings and government revenue, confronts policymakers in oil exporting countries with the short-run issues of how to address sharp and unpredictable variations in oil prices, and how to use the oil revenue more effectively. It seems that oil is both the greatest strength and the biggest weakness of Libya. In spite of the country having recently undertaken structural reforms aiming at stabilizing, reforming, and opening up its economy, this has had varied outcomes. On the positive side, it has managed to maintain relative macroeconomic stability in the face of significant fluctuations in the price of oil and the accompanying volatility in capital flow. However, the country as a whole failed to generate high and sustained growth rates, and the share of non-oil sectors to the GDP never went below 30% of its output over the last the decade (2000-2010).

Perhaps the contributing factor in economic underdevelopment is that countries producing oil are firmly dependent on the oil growth sector for their economic development. The exporting oil led economic strategy can also have a critical influence in contributing to the under-developed economic bases in these countries (Elbadawi, 2009). It is noted that from the evidence based on the facts, the oil industry is known to contribute to about 45% of Saudi Arabia's and more than 60% to Libya's Gross Domestic Product, (GDP), to nearly 60% of Kuwait's Gross Domestic Product (GDP). Therefore, countries which have developed a dependent economic syndrome, meaning that they rely entirely on a single commodity economic sector, leave them much more vulnerable to external economic and financial exposures, price instability, market volatility, international oil conflicts and the commitments of countries to develop their economic infrastructure or shift their policies to withstand external pressures and mitigate effects (Diarra, *et al*, 2010). An academic literature on the resource rich

economies has focused overwhelmingly on explaining why resource rich countries as a whole have performed less well in economic terms than resource-poor countries. Economists, for instance, have advanced different sets of explanations for the relatively poor performance of resource-rich countries: Apart from negative growth, large windfall revenues from oil, gas and mineral projects somehow appeared to change the way in which governments behaved with resulting damage to growth and development prospects (Auby, 2001). He argues that rent seeking is greater because wealth is concentrated in the public sector. This thread ran parallel to the wider developments in economic theory relating to the economic theory of politics, theories of public choice and principal-agent analysis. These schools of thought laid the ideological basis to argue that government involvement in the allocation of resources would generally lead to a misallocation of these resources (Stevens, 2003). Another undesirable economic and social aspect of being commodity-based economy is that it tends to be associated with greater conflict in a society (Collier, et al, 2010). Fighting or expectations of fighting also absorb resources that would otherwise go to improving economic performance and alleviating poverty. Large-scale resource revenues create a pot that is worth fighting for since whoever is in power is better able to plunder that pot. Such revenues also tend to generate much higher levels of military spending.

However, for governments to deal with the fluctuation of oil prices internationally, they have to consider pursuing more careful economic stabilization policies as part of the national strategies to deal with the impacts of market price fluctuation. Policies to be adopted might range from a number of options, for instance, the government may have to take a leading role in building infrastructure and also creating an institutional framework which supports a competitive and business friendly environment for the development of the economy. This might also lead to rising of inflation and therefore making market prices become more distorted. The economic strategy must be based on

carefully selected options (and consequences) assessed in order to ensure that the injection of funds does not necessarily lead to market distortion. If states do not address market distortion, and oil price stabilization, this might lead to price falls which consequently make growth remain slow and cause investors to become less optimistic about such economies which might lead to recession. This was evident in 1986 when the oil price fell extremely from \$54.47 to \$22.26 a barrel (EIA, 2004); the price change was observed over a significant period of time and lasted for several months. During this period, the revenues also declined below the expected level. This was a general phenomenon in all the oil producing countries, where it was also observed that the effects of the oil price would lead to an increase in unemployment, a slowing of economic growth, and consequently adversely impacted the overall economic development.

The literature review also revealed that there is need to ensure that corrective measures are implemented to deal with the above cited issues which came as a result of oil price declines. In this context, making economic diversification as one of the strategies to combat unemployment, and other identified constraints, will help to boost economic recovery and strengthen the economic infrastructure (Shafaeddin, 2001). However, it is also realised that as the state become involved in controlling the oil natural resources, giving them total ownership would constitute a major threat to economic growth which is the main underlying cause of economic underdevelopment.

The general aspect of economy linked to the environmental realities of countries producing oil is based on the premise that in these countries all the revenues generated through exports are directly transferred into countries' state treasuries. For instance, in the case of Libya, 95% of the total oil sales generated are directly under control of the government (Edwick 2007). This makes the state become more interventionist in controlling the market. The control and market intervention by the state show that the government is more interested in making

gains for its own interests, not necessarily to improve the market structure but to ensure oil export is well coordinated and under strict state jurisdiction. Stevens (2003) argued that due to the effects of the state's strict control and market interventions, resources and revenues under this framework might lead to state-controlled interventionist measures being considered, which are not well prepared and incorrectly conceived. The mechanisms put in place by the state to strictly control the export strategies are recognised as being the sole source of rising funding which in turn permits the state to increase their funding strategies which are at their disposal.

In the case of an oil producing state, governments can receive substantial increases in revenue simply based on favourable price fluctuations in world markets. In this respect, Hesse (2008) claims that this situation typically has a negative impact on GDP growth over the long term, because many of the incentives for productivity are removed as the state begins to distribute its oil wealth to its citizens. (Auty, 2001:16) concluded that when oil revenues swell, the state shifts from being a production state to an allocation state. In the case of oil producing states, governments can receive substantial increases in revenue simply based on favourable price fluctuations in world markets. Beblawi & Luiciani, (1987) claim that this situation typically has a negative impact on GDP growth over the long term, because many of the incentives to productivity are removed as the state begins to distribute its oil wealth to its citizens. These funds are frequently allocated as public goods such as infrastructure, education, and health care. Since citizens do not have to pay for these goods with taxes, they learn that they will receive them whether or not they work hard. As a result, when oil revenues swell state coffers, the state shifts from being a "production state' to an "allocation state", thus creating a national mentality characterized by a break in the work-reward causation. Moreover, under the current allocation state model, only a relatively small part of the local population is involved in economic activities. This is because, as argued above, allocation states do not

need to focus on creating a productive base, and therefore cause systemic underdevelopment of the productive sectors (Beblawi & Luiciani, 1987). Oil price fluctuations can dramatically decrease a state's oil revenues, thus leading it to subsequently reduce state spending. Regardless of price changes, such high levels of government expenditure are usually unsustainable in the long term, due to the nature of the resource.

In an oil dependent economy like Libya, specifically, it is often discussed that the growth of economy is viewed to be basically dependent on the oil revenues as a source of finance which are subject to many disturbances and shocks in the international oil market (Zarmouh, 1998:246). If it so, then the choice to implement and shift to non-oil sector as a certain ratio of the country's total output is, to large extent, affected by and determined according to these shocks and disturbances rather than the requirements of economic development. Libya and other oil-based economies should not, however, rely on this situation in their economic performance, because of the following disadvantages:

- Since oil is an exhaustible resource, the situation of an oil dependent economy cannot be sustained in the long run.
- The disturbances of the oil market are transmitted to the economy creating a situation of economic instability.
- There is a possibility that the country is short of finance and, in the lack of other alternatives, the growth of output will deteriorate.

2.5 The Nature of Resource Curse

The central claim of this theory is that countries that earn their incomes from the external sale of non-renewable, hydrocarbon resources typically experience poor GDP growth (Ahrend, 2006). This phenomenon is known as Dutch Disease since it was clearly observed in the Netherlands in the 1960-80s, after the giant Groningen Gas field was discovered in 1959. The Dutch Disease Theory explains macroeconomic consequences of a resource boom. The most frequent argument for pursuing a diversification strategy is that this is a way of counteracting the Dutch disease effects of natural resources. It occurs when the foreign exchange earnings from exportation of a country's natural resources are converted into local currency, raising the value of that country's currency. Thus, tradable goods become more expansive, and as such less competitive both domestically and as exports crowd out the tradable manufacturing sector, leading to lower rates of productivity improvement and economic growth (Ahrend, 2006).

It is widely acknowledged that specialization in a single economic sector, understood as the antonym of diversification, is a source of high risks. If the single sector involves natural resources extraction such as petroleum then these risks stem first and foremost from exposure to the uncertainties of international markets. An additional factor that has brought diversification to the forefront of economic policy in commodity-based economies is the simple fact that oil revenues quickly crowd out any other economic activity as Stevens, (2005) phrases it:

With the decline in sales, the labour intensive manufacturing and agriculture sectors decline, creating unemployment and increasing dependency on natural resources. In debates on ways to counteract the resource curse, diversification is often mentioned as a potentially effective means (Collier and Gideris, 2007). Diversification is seen as a way of preventing such decreases in productivity by

broadening the economic base of a country Wiig and Kolstad (2011). The overviews of the literature in Page (2008) and Hesse (2008) both put great emphasis on this argument. Through they focus on productivity enhancement, Carrère et al. (2009) can also be placed within this tradition.

It is divided into renewable and non-renewable sources, obviously the latter which are running out. However, the vitality of oil resources has led to so many questions being asked about extraction to ensure the proper utilization. Most scholars (e.g., Alexeev and Conrad, 2009) have also been questioning whether the discovery of oil resources in some developing countries is a blessing or a curse. In the literature for instance, Gylfason (2006) and relatively more recently Polterovich, et al, (2010) described oil to be a blessing in that it gave some nations an opportunity to accumulate a substantial source of revenue. The sums involved can have an enormous positive impact on development. The presence of oil in Libya has brought large benefits in terms of capital surpluses. In terms of what the problem is, it is not the existence of natural wealth as such, but rather the failure to avert the dangers that accompany these gifts of nature. It is not inevitable that these abundant natural resources will prevent the emergence of a dynamic economy or that the discovery of such resources will act to dampen an already developed economy. Natural resources can be a blessing as well as a curse. Unfortunately, Libya has been unable to properly manage these windfall gains, ending up spending too much, too quickly.

Yet petroleum revenue could, in principle unlock the constraints of foreign exchange, serving as a development and diversification spur. However, despite the opportunities that oil has conferred, its exploitation has also exacted a high social, political and economic cost. It can only be speculated as to whether oil has been blessing or a curse to the Libyan people (Vandewalle, 1998). Moreover, it is difficult to make the case that a revenue windfall, especially if fairly sustained, can have a negative overall value since it expands the options available to the government and therefore to the entire country. However,

certain sectors of the non-oil economy, especially those producing tradable goods dependent on this sector, will be adversely affected by the windfall. In this regard Gylfason (2006) noted that it to be a blessing in that it gave some of these nations an opportunity to participate in world trade, and in doing so, enabled them to obtain the necessary technology for development. On the other hand, it has been described as a curse, in that some of these countries abandoned other sectors of the economy, after the discovery of oil.

Assume a resource boom, a sudden windfall gain. This may be associated with temporary increase in the price of oil or natural resource discoveries. Resource boom seems to open a window of opportunity for a developing country, a possibility to start a catching up process. However, market forces do not lead an economy in the right direction. The resource boom causes a currency appreciation, an increase in import and a rise in wages and in relative prices of non-tradable. Capital accumulation decreases. New opportunities divert capital from manufacturing and machine-building sectors. If there are learning by doing effects or positive externalities from human capital accumulation in these sectors and not in the resource extraction sector, then resource boom may have negative effect on long run economic growth (Auty, 2001).

The majority of economic literature has observed “resource curse” a sometimes that hamper countries which have a large endowment of natural resources which tend to suffer adverse effects on their economic progress and growth. The argument made by (Beblawi & Luiciani, 1987) proponents in support of ‘oil curse’ stated that there will be risky political consequences when state budgets are dominated by oil rents. In addition to negative economic effects could be that the rise in oil exporting income has coincided with the increase in corruption, nepotism. A few resource-rich economies have shown to be more successful than others. As a result these countries have gained more economic power and wealth. In the review of the literature, with particular focus on the oil curse, the economic sector, and economic diversification, it is argued that there

are two important issues which have been identified as more important to country development and economic growth. The first issue portrays the negative consequences which are reflected as part of an economic overdependence on oil or on another sector for growth. Secondly, it is claimed that due to the state failure to implement policies and strategies which could, in one way or another, help contribute to an economic diversification programme and help attain a desirable level of economic growth for the benefit for the country's people (Elbadawi, 2009). This was attributed to the inability of the state to be able to design policies which can support the economic and diversification challenges. The inability of the state can also hinder its ability to fairly distribute resources in a socially organised manner.

Other reviewed literature has come up with the two most common factors which are linked with the exploitation of natural resources which have contributed to the observed degree of underdevelopment, the economic dependence in one single economic sector and the control of natural resources ownership by the state. Perhaps the most noteworthy in this context is that in non-oil distributive and service sectors most of their products are not subject to international exchange, which is consistent with theory of a "Dutch disease" or illness of oil (Zayed, *et al*, 2009). Such effects in the structure of the economy are achieved by a sudden rise in income as a result of increases in the price of primary exports of commodities to the international market, or as a result of the discovery of new natural source of wealth. In other word, the growth of certain sectors of the economy compared to slowdown in economic growth rates of other sectors leads to further structural imbalance.

The economic theory of the "Dutch disease" is based on the division of the economy into three sectors; the prosperity export sector, and the deteriorated export sector, both of which represent a combined sector of goods that are viable for international exchange. The third sector is one that produces goods and services not eligible for international exchange; it contains activities such as

retail, construction, ownership housing, and public services, where the symptoms of the Dutch Disease would worsen when there is crowding out of the traditional export sectors (the deteriorated export sector) by the other two sectors.

Thus, the relative abundance of foreign currency, and the increase in the proceeds of primary exports would lead to an increase in the money supply when it is converted into domestic currency. Thus, the increases of demand reflected in the form of an increase in domestic prices, and an increase in the real exchange rate, would in turn weaken the ability of domestic tradable goods to compete globally. Hence, this would induce a contraction in the producer sector for these types of goods. In economic resources theory this situation is known as the impact of spending (Gylfason, 2006). In other words, the resources (labour and capital) will convert to produce domestic goods that are viable for international exchange due to increases in their demand, coupled with higher per capita incomes because of the prosperity of the primary sector of export.

Such affects can apparently be seen in the Libyan economy, the recent prosperity of the oil sector, which provides a large quantity of foreign currency, has led to a significant accumulation of foreign reserves. Therefore, the exchange rate of domestic currency (Libyan Dinar) has increased against hard currencies. As a result, non-oil exports become non-viable and unprofitable economically. More so, the prices of imported goods were relatively cheap compared with local production (Zayed, *et al.* 2009). Consequently, this has been reflected in the form of high growth in distributive and service sectors compared to growth rates in commodity production sectors, as well as leading to the continuous reliance on one source in the structure of exports. Given that, the sectors of economic and social welfare and income distribution has taken the priority of public expenditure policies, coupled with the financing of bulk of expenditures in the public budget from the proceeds of oil revenues. Thus, the dominance of a mono source continued in the structure of public revenues, to the

total of 60.1% in 2001, and 76.4% in 2002, respectively (Central Bank of Libya, 2005).

The increased orientation towards public spending on certain items such as employee's salaries in the public service sector, and subsidies for basic commodities have taken the bulk, around 63.9% in 2001, and 49.6% in 2002 (Central Bank of Libya, 2005), of the total expenditure in the budget, would lead to a significant increase in money supply, which in turn would lead to a rise in inflation rates, especially in a developing economy which is not flexible enough in its productive structures. For instance, if the inflation was coupled with a high value of the domestic currency as a result of the prosperity of the export sector, then the consequential effects of the Dutch disease would appear to worsen rapidly in the form of a slowdown in the growth rates of sectors producing goods not viably tradable outside of the oil sector.

Although it is noted that the economic strategy of most of countries in the MENA sphere such as, Kuwait, and Libya have been gifted with plentiful natural resources, they have not yet performed well economically proportionally to the their natural resource abundance. Empirically, it is evidenced that countries situated in East Asia, for instance, Singapore and Indonesia, have significantly managed to grow their economics at a faster rate than expected. This demonstrates that the East Asian countries have outpaced countries in the Middle East region in economic terms, despite that the fact these countries started their economies at the same period (1950s). For instance, taking into account the difference in the economic levels between these two economic blocks, it can be stated that the degree of economic growth and stability prompted the start of the theory linked to the resource curse leading to another important question: why have countries with abundant natural resources failed to increase their economies to the level required to improve economic growth? In addition, in most situations, such countries have manifested signs of

underdevelopment, and economic instability, in addition, the pattern of income distribution is also weaker.

Following this, the concept of the resource curse is therefore explained as a term used in a collective way to determine individually conceived theories that indicate economic overdependence as a result of a single natural resource. The resource curse is determined following the manifestation of unpredictability in the country's revenues, and exchange rates not being stable, all these factors contribute to the effects known as the 'Dutch Disease' (Alexeev and Conrad, 2009). The oil disease phenomenon brings additional effects such as an increase in the level of corruption, rent-seeking, and crowding out effects; authoritarian rule may also become more prominent. As a result of these effects, exogenous and endogenous factors will consequently affect the economy in general.

2.6 The Economics of a Rentier State

The economic success of some oil producing countries (e.g., UAE), which have got a relatively small population, means they have transformed rapidly from poor countries to rich countries, with a modern infrastructure and who have managed to provide its citizens with a high degree of prosperity, and provide them with services and basic needs such as education and public utilities. However, this economic success is still one-sided, because it depends primarily on the export of crude oil, which constitutes 80% of public revenues of Gulf countries. This heavy dependency has transformed these countries' economies into the economics of "rentier" states that imported capital goods and technology have not yet succeeded in their transition (Alexeev and Conrad, 2009). The dominant claim of the rentier term is that states that earn their incomes from the external sale of non-renewable, hydrocarbon resources typically experience poor GDP growth, and can become economically stagnant, although nearly all of them have improved their citizens' living standards through extensive welfare systems. Proponents of this theory argue that these rents negatively distort

economies. The oil curse literature provides a useful context for the present study of Dubai because although scholars classify Dubai as a rentier state, it has not experienced many of the above trends. This outcome is surprising because some scholars view the U.A.E., and by extension, Dubai, as the world's purest example of a rentier state. This evaluation stems from the country's substantial oil rents, the presence of an enormous welfare state, and its currently pacified national populace (Karl, 2007). In spite of this assessment, Dubai's GDP has been steadily rising. In addition, oil as a percentage of GDP has been decreasing as Dubai has diversified into other industries such as tourism, mass communications, business, and finance. An appropriate policy response for states to avoid the undesirable effects is to diversify the economy. This is indeed a more sustainable solution. Diversifying revenue streams and generating multiple economic capacities are sure ways to avoid or remedy economic distortions. Oil-based economies are not like those with more diversified economies, where the income may deviate significantly.

At the theoretical level, the theory of a rentier state stipulates that a rentier country is explained as a complex. This reflects the trends of economic development dominated predominantly by external rent, specifically in the oil producing countries. This kind of economy has depended to some extent on the degree of revenues generated from extensive exploration of the natural resources such as oil. Explained another way, a country with such an economy presents a situation where the state has mismanaged the earnings obtained from oil production and exportation of natural oil resources. With countries dominated by rent economies, they rely totally on exports which constitute a significant portion of the state's Gross Domestic Product (GDP); it is stimulated through the contribution of the petroleum sector, which in turn constitutes the major sources of revenue which are necessary for an annual contribution to the state's national budgets.

Others (e.g., Coury & Dave, 2009) argued that countries producing oil have their main sources generated through their exports in order to gain foreign exchanges, which in turn helps these countries to be in a position of altering their economies in terms of developing import strategies and strengthening their currencies. In this context, the foreign currency must ensure that it covers the financial requirements of the importation strategy, or otherwise countries will find themselves in a situation where they have wider deficits in terms of supply and demand or when measured in relation to the volume of export and import to evaluate balance of payment (e.g., Hesse, 2008; Page, 2008). For instance, Libya is a prominent example of one of the countries in the Arab world, which is strategically dependent on the oil sector as the sole source of revenue. If something went wrong in the oil economic sector for Libya, then it might lead to economic problems, for example, if the oil production diminished it would affect the revenue inputs for Libya.

There are other indicators that contribute to the rentier states, but among them, is the situation where the Gross Domestic Product (GDP) is mostly dominated by the impacts of the additional value of oil and gas by-products which came as a result of the production process. Evidently, for instance, Libya is predominately recognised as an example in which the oil and gas sectors in 2008 contributed to up to 60% of the country's Gross Domestic Product (GDP) which supported the economic growth (CBL, 2009). This made Libya, in the present time, in a unique situation in which the country has undergone a very critical war situation which has hindered the prospect of economic development and growth. The security situation also contributed to the worsening of economic growth across the entire country. Furthermore, it has also led to the collapse of other sectors, for example, the non-oil sector which became more vulnerable to internal and external risk. In this regard, in the Arab countries, the composition of the oil and gas sector is in a direct relationship to their economic growth. The difference in percentage in various countries demonstrates the variations of shares in terms of

economic growth. It is also necessary to note that the variation in shares is larger for Qatar as compared to other countries with similar natural resources. The variations in shares also indicate that there is a strong relative degree which reflects the absence of economic diversification contributions in these countries. The evidence suggests that among the Arab countries, for example, the United Arab Emirates (UAE) statistically demonstrates the best scored outcomes because of the significant contribution of the of (27%) to the country's economic growth. The 27% increase in GDP came as a result of good economic performance stimulated by the contribution of the gas and oil sector to total GDP (Al-Kawaz, 2008).

There are other significant issue among them are the problem of how rentier countries in the Arab world could finance their national budgets. The oil and gas sector, in a normal situation, does generate revenue for the state and greatly support and strengthen government budgets. In Kuwait, Saudi Arabia and the United Arab Emirates (UAE) countries, their petroleum export revenues contributed to the budgets by 91%, 90% and 86% respectively in the year 2006 (Al-Kawaz, 2008). Other states were also very lucky, despite not performing well to the expectation level during the year 2006, for example, Algeria contributed to their financing budget by up to 50% which in reality is not as bad as previously envisaged. This performance might have been stimulated by other sectors, such as the non-oil sector, which strengthened the economic growth in general. When making a comprehensive comparison with other countries in the same region, or having the similar economic potential, the Algerian performance was relatively much better in comparison with these other countries, but it still remains much more vulnerable to the decline of the oil and gas sector. Consequently, the oil and gas income increased in the country's economy (Aissaoui, 2009).

The main question to answer is how can countries lift up their economic growth and provide another means of revenue. The other identified driving force resides

in the adoption of a very well developed and structured diversification strategy which might provide an answer for the oil producing countries in terms of jobs creation, and economic activities. However, in this regard, for the rentier states to survive in the current economic downturn they need to ensure that market price shocks emanating from the oil and gas sector are minimised and absorbed. The diversification has become an area where the focus is currently directed in a number of oil producing countries. This indicates another very important theme which is the question of how rentier countries can ensure that the allocation of natural resources is more effective and efficient, in order to meet market demands without disrupting other economic activities emanating from the introduction of the process of an economic diversification strategy. The application and practicability of any theory linked to development, including the expenditure structure, always follows the function of structure based on revenues generated. Within the concept of structure, there are often some constraints which are directly linked to the structure itself creating other obstacles in the way revenues are attained.

However, the “conjecturally possible” ideas brought vary explain in this context. To understand the conjecturally possible ideas, let us take this example: if we have an economy which requires a rapid diversification process to take place, when its natural resources are diversified, as well as its structure of income in a way which is more efficient, then the structure of that economy is changed to something else and it is no longer in its original state. Therefore, it has undergone a major transformation in the income generating structure. Now other important questions are how do we normally recognise that the oil-rentier economy has indeed diversified or diversification has taken off? In addition, to what level of diversification has it reached and what are the sectors in which diversification has begun, and also what are the effects of the diversification process on the country’s economic performance and on the people.

2.7 Chapter Conclusion

This chapter has reviewed and discussed the economic impact of countries over dependence on one or few commodities such as oil as their main generates of income. Putting the arguments of the previous theoretical consideration together enables us to draw some tentative conclusion. The discussions in this chapter have revealed that the one-sidedness of the commodity dependent economies involves numerous problems and risks, including slow growth in demand, falling long-run price trends, and short-run instability. The consequences of the Prebisch–Singer hypothesis are very important for developing countries and Libya in particular because many of them depend on only a few primary commodities to generate most of their export earnings. For instance, it is estimated that around 60 percent of their export earnings are obtained from primary commodities. For Libya more than 90 per cent of export earnings depend on the production of hydrocarbon (oil, and gas). This overwhelming commodity reliance has serious policy consequences.

An additional incentive for diversification is the oil sector's inability to generate production and consumption linkages with the other sectors of the economy and, thus, to create employment opportunities. However, it is common knowledge that a well-organized non-oil promotion policy that stresses economic diversification with emphasis on the export of primary products, manufacturing provides a strong impetus for accelerating industrial take off, which can reduce instability in the stream of foreign exchange earning arising from dependence on one commodity.

In case of an actual long-run downward trend of the exported commodities, the concerned country might have to explore diversifying its export portfolio to include manufactures and services. In order to offset the effect of the secular downward trend of real commodity prices, the resource-rich countries must diversify their exports by investing in well run and beneficial manufactures and services (avoiding booms and busts). This is more easily said than done. Some

resource-rich countries such as Libya embarked on ambitious diversification (industrialization) programs that were not very successful.

Economic management in resources-based extractive economies must confront a wide range of challenges, rents from extraction are often large relative to GDP and to government budget, the resources' extent and future prices are highly uncertain and volatile, and the resource deposits themselves are exhaustible. These three key facts complicate government's task in insuring sustainable growth and development. The first two influences potentially create a procyclical economy, which could have destabilizing effects on macroeconomic performance. The latter point exhaustibility raises particular concerns about the sustainability of growth and development in economies. For a program to be fruitful, certain necessary reforms must be adopted. Also, to achieve sustainability there must be an effective and judicious application of the 'Hartwick rule' Hamilton and Hartwick, (2005), which requires that any depletion of natural capital be offset by a compensating increase in other forms of capital capable of generating as much income as the natural capital they replace (to prevent inequity across generations).

The possible conclusion from these findings is that the economy is well endowed with natural resource, and rather than viewing this endowment as an obstacle to development, Libya should try to manage better the non-oil proceeds it procures from them, and where possible engage in partial processing for diversification by strengthening their stock of human capital and investment.

Chapter 3: Empirical Literature: Country Evidence

3.1 Introduction

Economic diversification has been an objective for many commodity-rich countries, but only a few have managed to succeed in diversifying their economies (Gelb and Grasmann, 2009). Factors such as drop of oil prices and degree of vulnerability to external shocks have encouraged some of these oil exporting countries to diversify their economies base. To provide useful policy lessons to Libya, we present specific countries examples of commodity exports that had successful export diversification strategies: these countries followed distinct strategies to diversify their economies out of their main commodity exports and to become less vulnerable to negative terms of trade shocks. The countries considered including: the U.A.E from Gulf countries; Indonesia and Malaysia from East Asian regions. In particular, it reviews the approaches that these countries adopted, when it comes to their strategy towards the diversification of the economy or their strategy towards an economy that becomes less dependent upon the natural resources that they are exporting. The latter two case studies have made significant structural transformation at different stage of development. In order to realise their specific economic objectives, they have introduced non-oil promotion as an attractive developmental option to sustain their national economies.

It has been chosen based on certain features shared with Libya that make a compelling case for carrying out a comparative study of their economies. Their experiences of the economies of such countries are of great relevance to Libya, since they benefited greatly from the exploitation of their resource, and recognized early on that economic diversification was needed. The main aim is to draw some lessons from those experiences, which can offer insights about

diversification and consider the type of policy framework that would facilitate the necessary changes. Moreover, it is useful to look at country experience, not for rigid formulae and prescriptions but to help inform thinking in particular cases.

These case studies suggest some common elements of success, and features of good performance. Their experience confirms that meaningful economic diversification can be achieved within timeframe before revenues generated from oil may start to diminish. Each case studies have early released that economic diversification would only be succeed once the right economic policies that are required to create an overall enabling framework for sustainable growth. In the following section of chapter, we intend to analyse and discuss the relationship between resources and rapid growth and development, viewing this from the perspective of diversification. As mentioned earlier, the motive may simply reflect the proposition, which is supported by evidence, that economic diversification is associated with higher long-run growth.

3.1.1 The United Arab Emirates

In the last two decades the UAE has faced a structural change in their economic policy that changed their government expenditure policy as well as non-oil sector growth. Moreover, due to the oil price shock during the 1970s and early 1980s (and its aftermath), the UAE needed to base its economy on more stable and reliable income sources. Oil reserves enabled the country to shift from a subsistence state to a high income country. The state has used its oil windfall to good effect, initially by building up foreign assets, and later by using the fiscal room afforded by increasing revenues to implement ambitious investment programs aimed at diversifying their economies and providing employment (Shochat, 2008). Despite the hydrocarbon sector still playing a prominent role, the UAE economy has become increasingly diversified, with the non-oil sector now accounting for between 60-70% of GDP. The increase in economic

diversification is also being reflected in employment patterns. As a result, the UAE's economy has been classified as the most diversified economy in the gulf regions relative to other countries in the area (Elhiraika & Hamed, 2002). The paths of economic diversification in the UAE have been influenced by its oil reserves, in particular the Emirates of Abu Dhabi, and Dubai. Dubai for instance, has experienced greater urgency than Abu Dhabi in efforts to develop an economic structure not totally reliant on oil. Between the mid-1970s and the early-1980s, a booming economy allowed the government to use a share of surplus oil revenues to expand the physical and social infrastructure. However, oil prices, which had fallen in 1986 to below US\$10, and the subsequent reduction in economic growth rates, have limited the government's diversification efforts (Alnasseri, 2005). Nevertheless, the continued deterioration in the global oil market, and the decline in oil revenues persuaded the UAE to give priority to diversification for long term national economic development. The relative importance of oil sector to the GDP declined from 46.8% in 1990 to 29.9% in 2009, while the manufacturing and services sector have all grown in importance, (see Table 3.1). The increase of the value-added of manufacturing output was accompanied by an increase in the diversification of the country's industry base. This led to the development of a well-diversified of medium and small scale manufacturing industries (Alnasseri, 2005). A feasible strategy with regard to new directions for diversification in non-oil industries is to strengthen existing, manufacturing industries that have shown meaningful growth.

Despite several shortcomings Dubai's economy has in general outperformed its peers in terms of both sustained growth and diversification. The willingness of Dubai's government to pursue greater integration with the international economy, thereby taking advantage of structural changes that have occurred in the last twenty years, has contributed to the state's particular development outcomes.

As discussed earlier, economic growth can be achieved by the efficient use of the available resources to create another form of wealth. In order to determine the extent and sources of remarkable diversification that led to the sustainable economic growth experienced by the UAE, an analysis should be made of the GDP growth and its major components which brought about the sound economic performance of the national economy. To do so the researcher has used the real growth of GDP and its main components based on absolute figures at current prices. By observing Table 3.1 figures, it can be seen that oil development has steadily decreased as an important share of the economy. Its share in the GDP has decreased over time, due to the prudent plan pursued by the UAE's government to diversify its economy away from oil dependency. Table 3.1 shows the overall growth of oil and non-oil GDP. Successful efforts at economic diversification have reduced the portion of the GDP based on the oil and gas output to 29.9%, with the rest accounted for by the non-oil sectors 71.1%.

Table 3-1: Major GDP Contributor of the UAE's Economy by Sector (%)

Economic Sector	1990	1995	2000	2005	2006	2007	2008	2009	Annual Growth (%)
Agriculture	2.1	2.9	3.1	2.2	1.9	1.7	1.6	1.7	
Oil & Gas	46.8	43.2	40.7	36.4	34.5	33.1	32.4	29.9	5.5%
Manufacturing	9.1	10.4	14.7	14.5	15.9	15.4	15.1	16.2	
Finance and Insurance	2.7	3.6	3.8	5.7	5.5	5.4	5.3	5.8	
Construction and Real Estate	14.9	13.1	14.5	16.7	17.0	16.9	17.4	18.9	
Government services	10.8	11.8	9.2	8.0	7.5	7.8	7.5	8.0	
Others**	24.4	15.0	16.0	22.3	21.2	21.3	20.7	20.5	
Share of non-oil sector in GDP	53.2	56.8	61.3	69.4	69.0	68.5	67.6	71.1	8-10%

Source: U.A.E National Bureau of Statistics, 2010

**This category represents other non-oil sectors such as electricity, gas, and water, wholesale and retail trade, transport, storage, and communications.

As a key to achieving sustainable growth, the federation government of Emirates have encouraged the non-oil sector to reduce their reliance on oil. During 1990-2009 there have been significant diversification changes where one can notice that GDP has not been driven only by oil earnings, but also by sustained expansion in the non-oil sectors. Its contribution amounted to 71.1% of the total GDP in 2009, thereby pointing out that the UAE's economy depends less on the oil sector. In total, the non-oil contribution to the UAE's GDP was more than that of oil, both in its absolute value and growth rates (El-Hag & El-Shazly, 2012). Given that non-oil GDP is the dominant driver, it is desirable therefore to identify the main economic sectors that made an integral contribution to the UAE's GDP growth. The development policy undertaken by the Emirates to diversify their respective economies away from oil to non-oil sectors has been made into activities that combine services and industry or trading, such as value added manufacturing, trade, and financial services. Real estate and construction are also important. Further analysis of Table 3.1 indicates that the non-oil components of the GDP by economic activities increased over time. It is evident that the share of manufacturing sector had the highest share, its contribution to the GDP increased from 9.1% in 1990 to 14.7% in 2002, and again to 16.2% in 2009. Much of this remarkable growth was accomplished because of both increasing demand (due to a rapidly increasing population) and increased national and foreign investments.

More so, the financial sector has also served as an important element of growth towards the diversification of the United Arab Emirates strategy, as its contribution increased gradually from 2.7 in 1990 to reached 5.8% in 2009. This ratio asserts the significant role of this sector and its ability to mobilize sizable savings, thus large amounts were invested abroad. Moreover, its elastic access to the national stock market has helped to attract foreign investors their portfolios and direct investment. Table 3.1 figures also show a visible increase in the growth rate of construction and the real estate sector, as their contribution to the

GDP rose from 14.9 in 1990 to reached 18.9% in 2009. UAE's oil and gas wealth has been utilised fund public infrastructure and development. This achievement is attributable mainly to the success of creating a boom in infrastructure and the construction industry by making huge investments, especially in the Emirates of Dubai and Abu Dhabi. It is apparent that the role of the government has been notably high in the UAE, at 8% in 2009, which reflects the significant involvement of the public sector in providing several types of government services, such as good quality health care and education services.

It seems that diversification remains the watchword for future growth of the UAE's to ensure economic strength and sustainability. Its main effort has established two broad patterns; first diversifying into oil-based manufacturing industries such as petrochemical products, and oil refining; secondly, diversifying into service industries, for instance the development of banking sectors. Thus, the long term success of such forms of diversification was reliant on easy access, at low cost, to a non-renewable resource. Moreover, the government subsidies that have encouraged these two patterns of industries were derived from oil revenues. Hence, the increase in the value added manufacturing output was accompanied by an increasing diversification of UAE industrial bases. This in fact led to the development of a sound diversified base of SME-scale industries, such as heavy and light metal products, household items, and other consumer items (Alnasseri, 2005). Diversifying into the services sector seems to have achieved another amount of success. Such diversification involves financial and insurance services, the development of trade zones, and tourism and its related activities. About 10% of the UAE's national GDP is based on a high-class tourism sector, which remains a major driver of growth in the country (Diop *et al*, 2012).

Table 3-2: Total Government Revenues of the UAE

Revenues	2000	2005	2006	2007	2008	2009	2010
Oil and gas	46.0	31.0	38.2	30.9	37.7	25.7	30.9
Income Tax	1.8	6.8	7.0	7.3	7.6	7.1	8.3
Profit transfers	3.9	4.6	8.0	13.0	17.0	17.7	18.0
Customs	1.7	3.9	4.6	8.0	6.5	5.9	5.8
Fees and charges	4.1	8.8	13.6	9.7	12.2	12.7	13.0
Investment income	25.4	24.6	33.7	46.3	30.2	18.3	22.2

Source: IMF, 2010, the U.E.A Country report No. 12/116 Publication Services, Washington.

In addition, the UAE's government has realised early on the need to both increase the ratio of non-oil sectors in the GDP and export earnings, but also to reduce the reliance on oil revenues for its budget. Though the UAE has taken significant steps to isolate its economy from oil shocks, the GDP contribution of the oil and Gas industry is still 30%. Its early efforts were focused on developing non-oil revenues. As a result the proportion of non-oil revenues in total public revenues took an upward trend since 2000 (table 3.2). This table 3.2 shows that oil revenue has been a decreasing share in the national income, from about 46% in 2000 to less than 30% in 2009. This trend reflects a government effort toward diversifying its economy to face the severe volatility of global market, coupled with its overall objective to achieve a sustainable rate of growth that was less exposed to fluctuations of oil prices. As a result of the prudent management of public revenue, the public deficit has declined from 12.9% of the GDP in 2009 to about 1.3% of the GDP in 2010 (WTO, 2012).

The increasing trend of the UAE towards economic diversification has also had a great impact in terms of employment, and has improved the employability of the population. This employment pattern in the structure of non-oil output has contributed to an increase in the productivity of the domestic population, which in turn has improved their earning capacity. Although the government sector remains the main provider of employment (mainly for nationals), at present it

has been surpassed by the trade sector, which ranked first in size of employment. This reflects the powerful dominance of the UAE economy. The services sector including construction and financial comprised the second largest, employing 22.3% of the total labour force. Manufacturing amounted to only 12.7% of the total employment. In spite of its high share of the GDP, the oil and natural sector employed only 1.2% of the total workforce. Despite the steady rise in population, which in 2009 reached about 8.19 million, unemployment in the country remained at the low level of 4.2% in 2009, and the economically active share of the population has grown by 3% per year (IMF, 2011). Therefore, the UAE employment growth indicator is fairly positive, with a low unemployment rate and steady increases in labour force participation.

3.2 Malaysia

The empirical literature has provided ample evidence on economic diversification, and a wide selection of cross-country experiences. These empirical studies have tried to establish a causal relationship between diversification and economic growth. They have pursued two different approaches. One set has used inter-country statistical comparisons, and the other set has focused on the economic performance of individual countries. Our contribution to this study is to recognize that structural changes in such an economy will, over time, change the sources of growth and this will affect the diversification-led growth. We use two other countries case study approach focusing on Malaysia, and Indonesia as they have had the world's highest sustained growth rates over the past three decades. These are among the most quoted examples of countries that avoided the “curse” and secured a “blessing” from their oil, gas and mineral revenues.

According to Gylfason (2001), only 4 out of 65 resource-based economies can be considered success stories in terms of growth (Indonesia, Malaysia). Although there are not many examples of developing countries that have built diversified economies from the initial condition of a strong concentration in the mineral sectors, there are some notable examples of policy effort and relative success. Coxhead (2007) studied the long-term experience of countries with rich initial endowments of natural resources. He identified two such countries among others with strong long-term growth: Malaysia, and Indonesia. They have diversified toward manufacturing, or widened their range of resource based exports to include new and more sophisticated products. The experience of such countries is therefore of special interest, especially those with substantial mineral resources.

There is still much debate on how resource wealth, or resource dependence, relates to long-term growth. The question is complicated because measures of

both resource dependence and resource abundance are at least partly endogenous to growth and income level. The emerging consensus is that resource wealth itself is not necessarily bad. Indeed, the common sense proposition that it is a good finds considerable support, including from examples like Indonesia, and Malaysia, which have transitioned from resource-based countries to high-income diversified economies. Yet there is a good deal of evidence that diversification of the export bundle is associated with higher long-run growth and that countries that get "locked in" to dependence on a limited range of products do less well in the long run (Arezki, et al, 2011).

A study by Stevens (2003) attempted to establish which countries having had large oil, gas and mineral revenues might be part of the list of those who avoided "the curse". The study began by identifying the target group of countries that may have been vulnerable. This was simply defined as any country in the period 1965-1995 where fuel and mineral exports exceeded 30% of merchandise exports. Two criteria were then applied. The first is non-oil, gas or mineral traded GDP. The second uses benchmarking to establish what happened to poverty, based on the three components of the "physical quality of life index" infant mortality, life expectancy, and illiteracy. His core findings provide strong support for the fact that, Indonesia and Malaysia and among others avoided the curse.

Many South-East Asian economies have rich natural resource endowment, and yet they seem to have escaped the natural resource curse. Indonesia, and Malaysia, succeeded in taking advantage of their natural resources as a blessing to further their economic development (Asanuma, 2008). Countries that have succeeded in diversifying away from commodities into higher value-added, more stable income earners such as manufactured products are mainly in Asia (e.g. Malaysia, Indonesia).

In the early stages of development, diversification is also intimately related to structural transformation. Both theory and evidence indicate that economic development ultimately involves structural transformation that is, the continued, dynamic reallocation of resources from less productive to more productive sectors and activities (this literature has recently been reignited by McMillan & Rodrik (2011). Prime examples are the development experiences of the East Asian economies in the 1970s and 1980s, as they transformed from relatively primary commodity economies toward manufacturing. Their experiences in industrial development provide a useful avenue for exploring the general policy implications for industrial diversification in resource rich economies.

3.2.1 Structure of Malaysian Economy, and Growth Performance

Malaysia is a success story of harnessing natural resources for development. It has attracted much attention internationally by recording an extraordinary economic performance. Malaysia can be cited as a great successful example of diversification among East Asian countries, which led to belief that sustainable economic growth can be achieved through diversification. Hence, there are many important lessons that can be learned from the Malaysian experience. The economy has exhibited sustained growth and increasing diversification over the past decade, led by strong performance with an increase in manufactured exports. Hence, in the 1980s, Malaysia had set its goal to acquire an industrial status by the end of the 1990s, alongside being a vibrant commodity exporting country. This section discusses the process of economic performance as Malaysia moves from being a producer and exporter of commodities to a country that is an exporter of manufacturing products.

At the time when Malaysia gained its Independence in 1957, economic activity was dominated by primary (unprocessed) commodities (Jomo and Rock, 1998). Primary commodity production continued to dominate the economy in the early years following independence. The performance of Malaysia's economy was in

line with that of its peers, underlining the predominance of external factors in the slowdown. Malaysia's recent economic performance has been linked to its commodity sectors. In the early 1960s, the primary sector accounted for nearly half of GDP, compared to less than 10 percent for the manufacturing sector. In particular, the economy was dependent on natural rubber, tin ore and timber (Table 3.4). At the time, Malaysia was the world's largest producer of natural rubber and tin ore. Malaysia has been blessed with a wealth of natural resources, which include tin, timber, oil, gas, and fertile land. Its economy was heavily dependent on export of these primary products to generate growth and employment.

Early of 1960s, the Malaysian economy was hugely dependent on natural rubber and tin resources as a primary sector for its contributor to GDP, and export revenues. These two primary commodities accounted for more than 50 per cent of the GDP during the period (Papageorgiou and Spatafora, 2012). Such an open economy like Malaysia has always been vulnerable to swing in the global market. As Malaysia relies on a few major primary commodities, such as rubber, tin, oil palm, and petroleum. A downswing in the prices of these commodities has far reaching repercussions on the economy. The prolonged global recession of the 1980s and the 1990s dampened the demand and prices for all Malaysian major export commodities (Nambiar, 2010). When export earnings of these commodities fell government revenue consequently declined, and hence, development programmes had to be trimmed down according to the available financial resources. In an open economy like Malaysia, changes in the world markets are bound to have an effect in the economy. For instance in the 1960s the economy recorded a strong growth trend despite sharp fluctuation in the prices of its principal exports which led to a decline in the terms of trade by almost 20 percent (Yusoff, at el, 2000).

The policy at the time was to nurture economic growth through the sustenance and development of these export commodities. However, in view of Malaya's

heavy dependence on rubber and tin export earnings, following sharp rubber price fluctuations during the 1950s and declining rubber prices in the 1960s, and in anticipation of the inevitable exhaustion of tin deposits, diversification of the economy seemed imperative as a means to stabilize its export earnings and income (Yusoff, et al, 2000). However, as early as the 1960s, the government recognized the need to expand the narrow base of the economy and diversify into other economic activities to generate growth. The diversification strategy involved initiatives to develop manufacturing through the establishment of industrial estates and also to diversify agricultural output and exports through palm oil industry, which played leading role in assisting Malaysia to diversify its primary commodity export base.

Less than forty years later, Malaysia had dramatically diversified both its economy as well as its export basket away from primary commodity sectors. The primary sector shrank by more than half, to just 18 percent of GDP, while primary exports plummeted to about 20 percent of exports in 2002. Exports of raw ores and metals became insignificant, while raw rubber exports also declined drastically following a decline in prices. The primary commodity space became dominated by fuels (oil and gas) and palm oil, though combined both commodities accounted for only about 13 percent of exports by 2000 (Nambiar, 2010). In the meantime, the share of the manufacturing sector in the economy climbed steadily from 8 to 29 percent, while exports of manufacturing surged, especially since the mid-1980s. Whilst the export value of primary commodities declined relatively, export earnings of manufactured goods showed positive signs. In 1970, the share of the manufactures in the total exports was only 2.6 percent but by 1995 the share rose to 62.2 percent climbing further to 73.3 percent by 2005 (Table, 3.4), indicating that the manufactured exports are becoming more important in the foreign exchange earnings. The detailed evidence to support this analysis is contained in the table provided.

Table 3-3: Malaysia key Commodity Exports, % Relative to GDP
(At constant 2000 US\$) in Millions)

Years	Food and agriculture (%GDP)	Export Fuel (% GDP)	Manufacturing (% GDP)	Palm oil (GDP %)	Rubber (GDP %)	Tin ore (GDP %)	Ores & Metals (GDP %)
1965	23.4	1.8	2.0	1.1	15.0	8.9	11.2
1970	24.4	2.9	2.6	2.0	13.2	7.7	8.9
1975	22.3	4.2	6.7	5.6	8.5	5.1	5.4
1980	23.9	12.8	9.7	4.8	8.5	4.6	5.3
1985	17.9	15.2	13.1	5.0	3.6	2.1	2.6
1990	17.0	12.2	36.0	3.7	2.5	0.8	1.4
1995	13.1	5.8	62.2	4.7	1.8	0.2	1.1
2000	8.5	10.1	84.2	2.8	0.7	0.1	1.1
2005	9.2	13.2	73.3	3.5	1.1	0.2	1.1
2011	13.6	14.1	49.3	6.8	1.5	0.4	2.0

Source: World Development Indicators (The World Bank): data are on an annual basis over the period 1960 to 2011.

The manufacturing sector has increased its share in national output and the production base has expanded. Significant (vertical) diversification within the commodity space has also taken place. All four of Malaysia's main commodities (crude oil, natural gas, natural rubber and palm oil) have in time been used as the building block to create downstream industries. By the early 2000s, value-added in commodity-based manufacturing accounted for 12 percent of GDP, compared to 18 percent for raw commodities. In terms of export value, about half of all commodity-related exports were processed. Vertical diversification was particularly successful in the rubber and oil & gas sectors (Verghis, and Sander, 2013). Indeed, the Malaysian economy has undergone significant structural change since achieving independence in 1957. The Malaysian economy that was formerly highly dependent on the primary sector for its GDP nevertheless has changed to that of a diversified economy with the industrial sector acting as the engine of growth. The manufacturing sector has increased its share in national output and employment, and the production base has expanded.

In 1980, the state introduced the National Depletion Policy, the purpose of which was to manage oil production given experts' view of limited oil reserves.

Malaysia's developed and profitable non-oil based economic production has evidently made it less attractive, and in fact costly, for the economy to reverse economic production (Noh, 2013). The increasing returns and dividends from a multi-sector economic base are an attraction on their own that made relying on oil production less urgent. A key advantage that Malaysia did have was the fact that the country's primary exports were highly diversified, including not only tin and rubber but also oil and gas. A key consequence was that this insulated the economy from individual commodity price shocks (Abidin, 2001). The approach taken to managing natural resource wealth defines the overall approach to economic management, and Malaysia's impressive economic performance is therefore closely tied to its sound management of natural resource revenues. There are three main reasons for this. First, growth was driven by factor accumulation (physical, human and institutional capital) that was made possible in part by policies aimed at converting natural wealth into produced capital. Second, investment growth and a stable macroeconomic supported economic diversification, which not only protected the economy from volatility, but built the assets for the development of sectors with greater potential for innovation and productivity growth. Finally, Malaysia was able to translate economic growth at the macro level into household income growth, including, in close coordination with policies to develop commodity sectors (Verghis and Sander, 2013).

Malaysia continues to prove itself as one of the leading economy country in South East Asia with a relatively stable and robust economic growth compare to other countries in the region. As the new industrialised market economy, the state plays a significant guiding economic activity through the government's development plan. This development plan is largely centred on accelerating the growth of the economy by selectively investing in selective sectors of the economy. Under the development plan, the economy experienced a period of broad diversification and sustained rapid growth.

3.3 Indonesia as a Case Study

I would like to take up Indonesia's case and attempt to derive lessons from its experience in handling the natural resource abundance. Similarly, Indonesia reduced its dependence on the extractive sector and expanded its agriculture and manufacturing sectors. Indonesia has been seen as a model for other resource-rich developing countries to follow in managing their resource wealth (Rosser, 2004). Although Indonesia economy continues to depend on the world market prices of the primary commodities that the country exports, but such reliance has declined over time, as the country has shifted its concentration from being commodity dependent to being industry oriented. It has been one of the largest economies that export primary commodity. Hence, its economy has been vulnerable to global commodity prices change, even though today Indonesia has a decreasing rate of primary exports as its manufacturing sector (Gelb, 2010). Therefore, in order to support the theoretical arguments presented in chapter two, we will analyse Indonesia's economic growth as a case in point to understand to what extent Indonesia economic growth depends on primary commodity production and what is the significance of this dependency for its growth. In doing so, we began by examining Indonesia's commodity exports and terms of trade. Therefore, it is appropriate to analyse the impact of the terms of trade changes on the Indonesia economy in order to identify the best policy response that was adopted to mitigate the negative impact while maintaining growth.

3.3.1 Structure of the Indonesia Economy

The Indonesian economy structure has been changing from being heavily dependent on the commodity sector to the manufacturing sector. The structure of the Indonesian economy is changing over time, and adapting to conditions in the current time, particularly during commodity price booms and busts. Its main objective for the structural reform was to enhance better economic growth, and

to lessen the magnitude of resource curse, where Indonesia is one of the resource abundant and commodity dependence country.

Some sense of the country's economic achievements can be seen in the Table 3.4, that in the initial stage of development of Indonesian economy in 1970, its economy relied heavily on commodity exports where primary commodity exports accounted for 99% of its total exports share base. In the early stage of development in 1970, the Indonesian manufacturing sector was still underdeveloped, hence as a country, which was rich in natural resources, but late to industrialize, Indonesia used its factor endowments to achieve better economic growth by using the commodity windfall revenue to develop its manufacturing sector as so to reduce the dependency on commodity driven growth (Rosser, 2004). It then began to move its development strategy from focusing on the commodity sector to the manufacturing sector to reduce the magnitude of 'Dutch Disease' by expanding into non-oil sectors. Hence, the share of manufacturing sector started to soar in its share of exports started in the 1990, where it had more than 50% of total merchandise exports in the 2000 Table 3.4. Based on the data analysis we see that Indonesia's reliance on commodity exports decreases over the years, which was due to the development plan's pursued main objective, was to develop its manufacturing sectors.

Table 3-4: Indonesia Exports Composition and Annual GDP Growth

(At constant 2000 US\$) in Millions)

Years	Agricultural (% of exports)	Food (% of exports)	Oil (% of exports)	Minerals and metals (% of exports)	Manufactures (% of exports)	Annual GDP Growth %
1970	35%	20%	33%	11%	1%	7%
1980	14%	8%	72%	4%	2%	9%
1990	5%	11%	44%	4%	35%	9%
2000	4%	9%	25%	5%	57%	5%
2010	7%	16%	30%	10%	37%	6%

Source: World Bank data <http://www.worldbank.org/en/country> (World Development Indicators & Global Development Finance).

The figures in Table 3.4 illustrates that Indonesia's exports were mostly agricultural raw materials and fuel, where fuel exports accounted for two-thirds (72%) of total exports earnings in 1980 when the manufacturing sector was still underdeveloped, and it was only accounted for 2% of total merchandise exports. As oil prices fell rapidly, the Indonesian government responded to the price fall by introducing a stabilization program to reduce the vulnerability to external shocks (Goeltom, 2007). Indonesia began industrializing in 1970, so as to boost its stagnant economy, by putting emphasis on the development of its manufacturing sectors and by diversifying its economic dependency on primary commodity exports. As shown in Table 3.4. Indonesia's manufacturing export production has increased and has dominated its exports since the late 1980s, particularly in the 1990s, when its exports accounted for half of the total merchandise exports. In sum, as Indonesia earned foreign exchange from its commodity exports, it started to develop the manufacturing industries, hence in 1980s the manufactures exports started to grow rapidly: in 1990 manufacturing exports reached 35% of total exports as shown in table 3-4 up until 1996 its exports reached above 50%.

In same table we can also see that Indonesia's dependency on primary commodity exports tended to decline since the rapid development of the manufacturing sector, which had a significant effect in the late 1980s. During this period Indonesia's exports share of primary commodities kept declining even when the commodity prices boomed. Indonesia's remarkable achievement in diversifying exports from primary commodities to manufacturing sector was due to its export oriented industrialization in the aftermath of the fall in oil prices in the mid-1980s (Gelb, 2010). Therefore, we can see how the Indonesian economic structure moved from being heavily dependent on primary commodity exports in 1970s to relying upon manufacturing exports in the late 1980s by using the windfall revenue from primary commodity exports to enhance the development of manufacture sector. While the literature in chapter two suggests

that resource abundant countries tend to cause slow economic growth rather than those with poor resources, and abundant in natural resources could only bring blessing to those countries with the presence of diversification.

3.3.2 Indonesia GDP Growth and Terms of Trade

Terms of trade and GDP growth have been argued by many economists to be closely related, and to play a key role in explaining the growth performance of a country. The relative recent literature (Coury, & Dave, 2009; Elbadawi, 2009; Koren, & Tenreyr; 2010) suggests that higher volatility, as measured by changes in the terms of trade, was associated with lower long-run growth, although other variables may explain this negative correlation, such as weak governance, and a bad investment climate. As mentioned earlier, countries that specialize in primary commodities are likely to have deterioration in the terms of trade because the primary commodity prices tend to fall relative to those of manufacturing where the country will become a producer of increasingly cheaper primary commodities and a consumer of increasingly expensive manufactured products (Bleaney & Greenaway, 2001). Hence, this section will analyze Indonesia's GDP growth rate and the change in terms of trade see if the long term deterioration of terms of trade that hamper economic growth applies to Indonesia case. According to Hausmann and Rigobon (2003), the lack or insufficient development of a tradable sector is the reason why countries such as Nigeria and Venezuela were unable to cope with the crisis as oil revenues declined, whereas a country like Indonesia was less affected, and was able to overcome the crisis with smaller costs due to its diversified economy. Diversified economies succeeded because Indonesia was able to make changes in the structure of production.

During the end of oil booms in the mid-1980s when the economy still depended heavily on oil exports its GDP growth fell where high dependency on oil caused the terms of trade to be highly volatile (Backus and Crucini, 2000). After the oil

boom period in 1982, growth in the manufacturing sector, boosted by manufactured exports, has played an important role as a source of export revenue and also as the major engine of Indonesian economic growth in the late 1980s (Goeltom, 2007). Since then, as shown in Table (3.5) in the 1990s the manufacturing exports share of total merchandise exports was on average 47% and Indonesian economic growth became more stable in 1990 and onwards until 2010 as the annual gross domestic product growth rate improved.

3.3.3 Indonesia GDP Growth and Exports Growth

During 1970s to 1980s Indonesia's economic growth was vulnerable to global commodity prices as it was still heavily dependent on commodity exports for exports earnings, particularly fuel exports, hence what happened in 1980s was oil exports revenue decline as there were declining oil price in 1982 and sharp falls in the next three years followed by the world's declining demand for agricultural products in 1980s, in 1982 Indonesia's growth rate was only 1% (Backus and Crucini, 2000). The rise in the prices of commodity did have a positive impact on the volume of Indonesia exports and economic growth. In the period of 1970 to 1979 Indonesia economic growth was vulnerable to the changes in primary commodity prices but its average growth during this period was 8%, where in this period Indonesia exports were mostly agriculture raw materials and fuel, while the manufacturing accounted only small a proportion of the total exports, though Indonesian GDP growth was high. In the period of 1980 to 1989 Indonesian GDP growth on average was 6%, which was due to the fall of fuel prices and the manufacturing sector exports was still in small proportion of total merchandise exports.

Table 3-5: Annual GDP Growth and Exports Share						
(At Constant 2000 US\$) in Millions)						
Period	Agricultural raw materials exports (% of merchandise exports)	Food exports (% of merchandise exports)	Fuel exports (% of merchandise exports)	Ores and metals exports (% of merchandise exports)	Manufactures exports (% of merchandise exports)	Annual GDP Growth %
1970-1979	22%	13%	59%	5%	2%	8%
1980-1989	8%	9%	63%	5%	15%	6%
1990-1997	5%	11%	29%	5%	47%	8%
2000-2005	5%	11%	26%	6%	53%	5%
2006-2010	6%	16%	28%	10%	41%	6%

Source: World Bank data (World Development Indicators & Global Development Finance)

In the late 1980s until prior to the Asian crisis in 1997/8, Indonesia's export growth performance was relatively stable compared to the prior period, as the value of manufactured exports accounted for more than 40% of total merchandise exports, as similarly its GDP growth performed better with less volatility and better growth. Indonesia's commodity exports' value started to fall during this period due to unfavourable global commodity prices hence, reducing Indonesia exports revenue from commodity sector, but its growth was high during this period due to the manufacture exports which boosted its exports earnings. This implies that Indonesia growth has been less dependent on the commodity sector as the manufacturing sector and has been well developed and dominated the total share of merchandise exports.

The Indonesian growth rate in the early 1970s to 1985 was vulnerable to changes in global commodity prices as manufacturing exports were still under 20% as shown in Table 3-6. However, from 1986 onwards based on the World Bank Data, manufacturing exports were above 25% and kept increasing until 1996 where manufacturing exports accounted for over 50% of total merchandise exports hence Indonesia's GDP annual growth rate was steady in the 1990s without any significant fluctuations even though global commodity prices fell drastically. Unlike such fluctuation in the 1970s and 1980s which had significant impact on the growth rate, similar fluctuation in the 1990s had no such impact.

The stable growth in the 1990s was due to Indonesia's exports being dominated by the manufacturing sector. The most interesting fact is that at the end of 1980s, when global commodity prices fell dramatically, the GDP growth rate on the other hand rose, this shows that Indonesia strong economic structure that caused by rapid development in the manufacturing sector, reduced Indonesia economic growth vulnerability to global commodity price changes.

In sum, Indonesia's economic growth was volatile during the early 1980s as they were still heavily dependent on primary commodity exports revenue. However, in the late 1980s until 2010, as its exports were dominated by the manufacturing sector, the annual GDP growth rate became less volatile and more stable as Indonesia became less dependent on commodity exports and more dependent on growth in manufacturing sector. Hence, from table 3.5 above we see that there is no evidence of long term deterioration of terms of trade in Indonesia as a commodity dependent country instead the change rate of GDP growth had an upward trend. The Indonesia successful example in avoiding so much dependency and resource curse adverse impact was due to good management in commodity windfall revenue by using the revenue on development plans notably the early stages development plan which was pursued. It has used its commodity sector exports revenue to run its development plan that focuses on manufacturing sectors development. The 1990s show evidence of remarkable development when the growth was boosted by the manufacturing sectors (Gelb, 2010).

More so, when the government relaxed restrictions and promoted export-oriented policies, FDI increased, and contributed to higher diversification in manufacturing industries in Indonesia. As the government provided more options for investors and the economy attracted more investment, the structural transformation began. This was a strategy adopted by the New Order policy during the initial period of economic development. The investment policy adopted by the government for the oil, gas and mineral revenues has played a

crucial role both in avoiding many of the macro-economic pitfalls and in encouraging the process of economic diversification by creating alternative source of value added to the depleting resource sector. For example, when Indonesia invested it was aimed at strengthening the productive base of the tradable sector, especially agriculture (Stevens, 2003).

When oil prices collapsed in the mid-1980s, economists (Rosser, 2004) have argued that the government responded quickly and prudently by liberalising the country's trade and investment sectors. Massive international funds then flew in during the 1980s and offered diversification options in the country. The series of deregulation packages has affected the flow of FDI, which contributed to generating net export revenue (20 percent of total manufactured exports), developing supplier and support industries, transferring technology and generating tax revenues in the 1990s. The openness to international capital accompanied by macroeconomic stabilization had attracted both foreign capital as well as domestic investment and eventually diversified the outputs. On the other hand, it decreased the portion of the extractive sector (Rosser, 2004). This goes in line with what Collier et al (2010) suggest; when commodity booms end, windfall revenue should be converted to high return domestic investments and enable the revenue to foster growth by using it in public investment spending that raises productivity of private capital.

3.4 The Common Factor of Success in Malaysia and Indonesia

Not all resource rich countries fail. It has been perceived that underperformance of resource rich economies is a recent phenomenon. A natural economic theory thus arises, stating that the poor performance of resource rich countries is a result of policy mistakes of reallocation of resources. There often seems to be a policy response to a resource boom as point out by Indonesian case. The type of policy defines the reallocation of the income flows to stimulate development of manufacturing and non-oil sectors. This policy could provide a chance to diversify national economy to be less dependent on the world oil and gas prices. Here is reliable evidence that diversifying economies can expect to do better over the long run. Moreover, “Dutch disease,” defined as a syndrome of factors that cause countries to lose rather than to benefit from resource wealth, is real for some countries even if it is not inevitable. However, while evidence of the presence of “resource curse” appears quite convincing, there do exist, scattered throughout the literature examples of countries where there appears to have been a “blessing” rather than a “curse”. For example, Lederman and Maloney (2007) examine the empirical relationship between various structural aspects of international trade, ranging from natural resource abundance to export diversification, and subsequent economic growth. The core finding is that, regardless of econometric technique, several plausible indicators of the incidence of natural resource exports seem to have a positive rather than a negative effect on subsequent economic growth. The data from the figures and tables shows that there was no strong evidence of resource curse that channels through resource movement from lagging manufacture sector to booming commodity sector that argues commodity dependency tend cause a country to undermine manufacture sectors, and the ‘staple trap’ theory that argues commodity dependent countries would likely to keep producing raw materials and hinder industrialization process.

Country's that get mentioned in this regard include Indonesia that came very close to being afflicted with the natural resource curse during and after the 1970s oil boom. It has been claimed as a country that has avoided "the curse", because the government accumulated budget surpluses, spent budget resources on strengthening the production base of the tradable sector. The new government, under the banner of the New Order implemented the stabilization policy and structural reforms, was greatly helpful for Indonesia to have successfully averted the curse, and the economy restored its steady growth path (Asanuma, 2008). When global oil prices rose sharply during the 1970s, Indonesia's "New Order" government had a strong incentive to manage the country's newfound oil wealth well. Obviously, this did not mean that it would necessarily succeed in this task. But it did mean that the circumstances the government faced were such that it was under serious pressure to ensure that its oil wealth was not squandered through poor economic management, as has occurred in many other resource-rich states. More recently Gelb (2010) acknowledges that "There are exceptions of some countries clearly managed to stay immune from the negative effects. These countries with large extractive industries have overcome many of the negative economic aspects discussed in literature review chapter, notably erratic growth and weak performance and implemented sound economic policies. Both cases Indonesia and more spectacularly Malaysia demonstrate that it is entirely possible to expand industrial production in a resource-exporting economy.

Hence, Dutch disease depends on choices. If a country uses the revenues from resource extraction to increase domestic investment, output of tradable goods can increase, as was the case in Indonesia. In turn, by using a large part of the revenues for investment instead of consumption, country is able to moderate the increase in demand for non-tradable consumer goods and services that would otherwise fuel Dutch disease. Hence, prudent investment dampens Dutch disease both by augmenting supply and moderating demand (UNIDO, 2009).

The analysis of the relationship between product sophistication, production intensity and growth strongly supports the “New Structuralist” view that what a country manufacturing matters for growth. As demonstrated by the post industrialisation of oil commodity exporters, Indonesia and Malaysia, it is prudent to invest revenues generated by their natural resource back into manufacturing sector, and services over time allowed them to compete globally, thus creating economies able to withstand a shock.

3.5 Lessons Drawn and their Implications for the Libya Case

The specific diversification experiences of the three countries in the case studies provide some interesting lessons that can inform the debates on diversification. Theory or empirical evidence does not always conform to realities on the ground even if it offers great guidance *ex ante*. Economically successful of Indonesia’s and Malaysia have been able to break the cycle of commodity dependency stemmed from the sound economic policies, mainly maintaining sensible macroeconomic and institutional arrangements that made diversification possible. More specifically, these countries accumulated foreign reserves ran budget surpluses to be spent on strengthening the production base of the tradable sector. By doing these things, their government ensured that the country experienced as stable rather than volatile economic growth, and developed a diversified economic structure.

This explanation of Indonesia’s and Malaysia success and relatively the U.A.E suggests that each has provided ample evidence of a model for other resource-rich developing countries to follow. The primary lessons of their experiences are that the nature of economic policies provided by good management of wealth play a significant role in determining a country’s ability to successfully manage the massive increase in its oil wealth well during the oil boom years, and consequently to avoid the economic difficulties experienced by many other oil-exporting countries as a result of this boom. It is a pitfall a developing country

may fall in if its policy management framework is not robust enough. The under-development of such a framework may be also called the absence of good governance or the institutional weakness.

These policies are, of course, extremely difficult to change and so are not replicable in other country contexts. But the analysis of these countries does at least offer a little more hope for Libya. One common theme running through the three cases is the importance of ensuring a stable macroeconomic environment (Libya should be praised for its efforts to maintain macroeconomic stability) with predictable fiscal and monetary policies aided by an efficient financial sector. Establishing prudent financial system to allocate resources efficiently and effectively will be crucial for Libya to promote a high value added economy. At the same time, it is crucial to ensure the good quality and efficiency of public expenditure, which plays a key role in the Libyan economy. The following overview of countries data analysis provides an in-depth look at the economic and export diversification policies in two resource dependent countries, and outlines useful policy lessons for Libya's aspiration to diversify its economy. The case studies clearly identify specific factors critical to the success of diversification. In summary, those factors are:

- 1- Diversification is essential for growth. Diversification strategies involved utilizing resources to raise productivity and diversification from tin and rubber into palm oil, and diversification from agriculture to manufacturing industries as Malaysia did.
- 2- Fiscal discipline and strict management of revenue, including resource revenues, is essential for macro-economic stability.
- 3- Private investment, domestic as well as FDI, is vital for economic growth as reliance on substantial public investment is not sustainable.

4- Exports were an important source of growth as trade intensity has increased.

These lessons will hopefully be relevant to policy makers in Libya to learn more about what policies they should consider in the pursuit of their own development objectives.

3.6 Conclusion

The conclusion to the chapter considers the lessons that can be drawn from the Indonesian and Malaysia experience for other resource-rich countries such as Libya and, in particular, addresses the question of whether they provides a model of some kind that can be followed by these countries. The three examples show that the long run success of such forms of economic diversification is reliant on ready access at low cost of non-renewable resource. Thus, the form of diversification can create a viable economy that will not be dependent on oil in the long run. Diversification and structural transformation are often underpinned by additional reforms and policy measures that are general in scope. Macroeconomic stabilization is a clear example. It remains an open issue to what extent industry-focused and narrowly targeted measures have historically helped underpin diversification efforts. One of the main conclusions of the chapter is that many of the policy and institutional factors that enable countries to manage resource wealth well are equally important for their ability to diversify into other sectors, as well as the proper role of government for states seeking rapid development. One important criterion is whether the country has the capacity to smooth out the high macroeconomic volatility that large swings in export prices can transmit to mono-exporters. If not, it will be far more difficult to sustain investment in the non-resource traded sectors, which will be destabilized by large swings in the real exchange rate. The countries examples also suggest that the impact of resources on growth is not homogeneous. Rather, the impact depends on whether the country is well endowed with two types of capital that can be seen as complementary to natural resources: human capital and governance or institutional capital. Without these, the country is more likely to experience a resource curse. It will also find greater difficulty in establishing viable non-resource export sectors, because they will be less able to compete with other countries at roughly comparable levels of income.

Chapter 4: Oil Dominance and Libyan Economic Performance

4.1 Introduction

The most important goal for oil developing countries will be to achieve high rate of growth and an overall economic development. In this chapter, we intend to discuss and analyse how each term is relevant to Libya's economy. This can be evidently seen from the role of oil sector in meeting its own economic development needs, and it's appropriate contribution to national economic process. Thus far, petroleum has a number of rather special characteristics that are not usually found in other resources. In other word economic development in oil wealthy countries does not simply mean expansion in economic capacity but involves a fundamental transformation in economic and social life. The Libya economy is a small developing economy that has been heavily dependent on oil sector since the early of 1970s, and it has been dominated by the public sector. The significant of oil in the Libyan economy stems from its role as a major source of government revenues, export, and foreign exchange. In addition, a major share of national income is derived from oil sector. As a result, a number of macroeconomic variables such as government revenue and spending, and GDP are influenced by oil production and its price change. The purpose of this chapter is to assess Libyan economic performance to date by focusing on the successive government development policies and their outcomes in the formation of GDP. More specifically, it attempts to shed some light on how development can be viewed as a process of economic diversification. It is initially worth gaining a better understanding of the major events and trends that have shaped the performance of Libyan economy highlighting the role of oil sector.

4.2 Oil and Socio-Economic Development Transformation

Due to the research being concerned with the economic development and growth of the Libyan economy as an oil-dependent country, it would be helpful for us, in this section to present a brief overview background on Libya's overall economic performance. Libya's dependence on its oil export revenues has largely characterised the development process since the early 1960s. Therefore, a number of different phases are to be distinguished. Libya's post-independence economic progress can be divided into five periods. Each phase will be defined by a certain characteristic that reflects the nature of the developments which occurred in the Libyan economy, for instance, variation between the respective roles of the public and private sector in economic activities, as well as the extent of the State's adoption of economic planning for the medium and long-term. In addition, it reflects the developments that have occurred in the world oil markets. Specific consideration has been given to the Libyan economy during its various stages after the discovery of oil, and during the periods when oil and other economic issues have demonstrated the country's overreliance on oil revenues, and has clearly pointed to the need to diversify the economy.

- i. The first period began with Libya's gaining of independence on 24th December 1951 (UN), while it was suffering the miserable situation of backwardness and poverty. The poverty situation started to change gradually, due to the discovery of oil late of 1957. However, the exporting process was not started until the end of 1961. During this phase, in spite of some signs of improvement, the economic situation continued to be nearly the same state as in the early of 1950s.
- ii. The second period took place subsequently, three years after the discovery of oil. In 1962 oil began to take the leading role in the Libyan economy, especially in the area of export, and achieved a massive surplus in the trade balance for the first time in 1963, which reached about 35 (million Libyan Dinars), making it one of the dominant members of OPEC at that time

(Yahya, 1981). During the decade after the discovery of oil, Libya was operated as a dual economy, led by state intervention and public sector ownership in the economy with little connection between the oil and the non-oil sectors.

- iii. The 1969 revolution marked the beginning of the third period, which witnessed Libya's economic transition from a Western dominated capitalist country into a nationalist, anti-Western state. This period also witnessed the government's growing intervention in the economy, which was largely financed by the first booming oil revenues of the 1970s. In addition, this phase witnessed the start of social and economic development plans established by the government in order to build up the infrastructure of the economy, and improve the standard living for the people.
- iv. Falling world oil prices in the early 1980s ushered in the fourth phase of Libya's economic development. The falling oil prices dramatically reduced government revenue and caused a serious decline in economic activities. Therefore, this phase was characterised by a lack of finance to meet the economic development schemes, which had been undertaken. As a result, Libya had a huge problem of balancing increasing requirements with limited financial resource to fund economic development, which it needed due to the deterioration of oil revenues. This stage is also known as a stage of economic retrenchment and rationalization that was caused by the collapse of oil prices in 1985-1986. After the sharp decline in the prices of crude oil in 1986, this phase was characterized by relative stability in oil prices at relatively low levels, and the planning for the development in the medium-and long-term was replaced by annual budgets for development. It was also characterized by the contribution of the private sector to economic activity from 1988, and also the restraining of the State's role in the process of the economy.
- v. The fifth period took place from the mid-1990s up until now, and is characterised by the relative contribution of the private sector in the

process of economic development. The main focus was to establish new industries that used modern technology and managerial skills, and which result in a diversification of the sources income. However, a lack of leadership and flexibility of the political system were the major obstacles.

4.3 Libyan Government's Policy of Development

The main objective of these plans and programmes was to achieve a gradual reduction of the dominance of the oil sector in the structure of GDP, to correct imbalances in the economic structure and diversification of production by raising the contributions of other sectors, especially agriculture and manufacturing. In order to identify the nature of the success of development achieved and to examine the pattern of change in the economic structure during the period of 1973-2010, the aim is to review the following two themes:

- a. Analysis the trends of success and failure in development policy to achieve diversification.
- b. Analysis of trends of change in the structure of public revenues in GDP.

The past few decades of the twentieth century have witnessed important progress in determining the notion of economic development. It not only implies an increase in per capita income as an indicator of the progress in economic development process, but rather, all dimensions of political, social, and cultural rights, which involve significant changes associated with the process of economic development. In the economic framework, the concern is mainly on the necessity to involve the development process to make a fundamental change in the structure of production and employment. It is not only a means to achieve an acceptable increase in per capita of national income, but also to ensure additionally that a number of fundamental changes in the institutions and economic data are made, which enables the government to acquire grater capability to increase the level of production continuously, as it reduces the risk

of dependence on one economic resource, which is influenced largely by external factors.

In order to analyse the efforts that have been made in the Libyan economy that aimed to achieve the objective of economic diversification, and acquire higher self-productive capacity, it is worth first establishing a brief description of the basic characteristics of the Libyan economy, which are summarized as follows:

1. The rentier economy depends on a single sector which is oil, in generating income and financing all components of expenditure, where this feature was reflected in the establishment of the state as an owner of the income of oil and gas, and led to the process of economic and social development.
2. A high degree of economic openness to the outside, coupled with an excessive degree of export concentration, and a low degree of industrialization of goods exported abroad.
3. There is a reciprocal relationship between the trade balance and the public budget. This therefore makes the conditions of the public budget subject to external economic developments, and at the same time limits the effectiveness of fiscal policy, especially in the revenue side.
4. Wide geographical area, and low population density, which may cause additional consequent difficulty in terms of achieving a spatially balanced development. This requires the state to direct a great deal of finite resources to be spent on the development of the physical infrastructure, and improving the quality of life of the population.
5. Weak absorptive capacity of the economy, because of the relatively small population, low or limited production capacity, chronic shortage of domestic labour (both quantitatively and qualitatively), especially with the progress of economic development.

In view of available official data, it is possible to say that the absolute domination of oil exports on the structure of exports, and the relative isolation of the oil sector from the rest of the economy due to the weak ties backward and forward with the rest of the economy. This in turn led to two principal conclusions;

- The possibility of using oil revenues to make a structural change leads to diversifying the sources of income and output in the Libyan economy.
- The possible impact of the oil sector in achieving growth and making the desired structural changes can only be determined through what is effectively allocated to the development of other non-oil economic sectors.

In other words, if structural change is a necessary condition for sustainable economic growth, and to reduce dependence on the oil sector, the development policies associated with the allocation of financial resources available to use on different economic sectors, represent a key element in achieving this goal. On the whole it demonstrates that all the efforts have been made to develop the Libyan economy, and diversifying the structure of production. From the perspective of the impact of the oil sector on economic growth it can only be achieved through two main channels; the first is to look at oil as a productive input, while the second channel represented what could be provided with the proceeds of oil export revenues and earnings to finance the spending needed to develop other economic sectors.

In this context, two major periods can be distinguished by reviewing such development efforts that were made by the government to diversify the structure of the Libyan economy. Each period was characterized by certain features, either in relation to the developments which occurred in the Libyan economy on the one hand, and in relation to developments in macroeconomic indicators at domestic and external level on the other hand.

4.3.1 Economic Development during the Period (1973-1985)

This period was characterised by financial surpluses due to first oil boom in 1973, and the second 1979. Thus, oil revenue has increased from about 429.5 million Libyan Dinars in 1973 to 5951 Libyan Dinars in 1980 respectively, while the percentage contribution of oil revenues in the structure of public revenues rose from 78.3% to 87.5% in those years. This resulted in a increase twelve-fold in public revenue during this period which indicates that the rate of growth of oil revenues was higher than the rate of growth of public revenues and the growth of non-oil revenues alike. This can be seen from the data contained in Table 4.1. Hence, non-oil revenues have multiplied from 118.7 million L.D in 197 to more than 849 million Libyan Dinars in 1980.

However, the relative importance of public revenues decreased from 21.7% to 12.5% despite a significant increase in both per capita income levels and in the size of economic activity during that period. Thereby, this increase in the size of public revenues led the state to adopt an economic planning approach, in the context of the development of a physical infrastructure and social development, as well as aiming to balance the disturbed economic structure through directing investments to increase the contribution of the commodity production and service sectors, especially in the sectors of agriculture and industrial sectors.

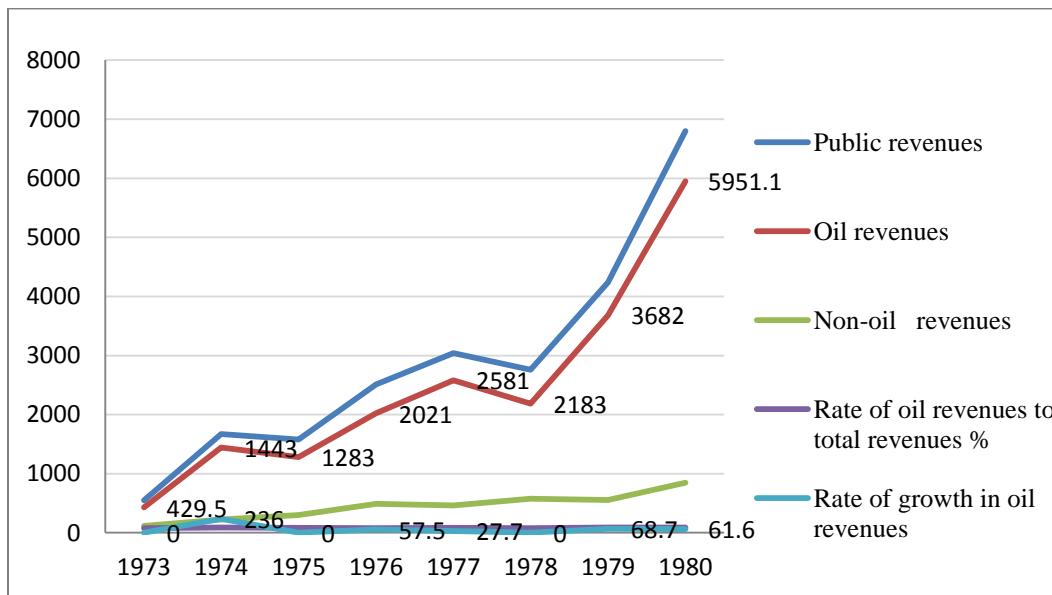
Thus, this period 1973-1985 of planning and economic development in Libya could have been regarded as a historical period appropriate for converting the structure of the Libyan economy from a petroleum based economy to an modernising agricultural economy which was made more varied by diversifying the local productive base, and securing the economic growth rate so it is able to be sustained independent of oil revenues, which are bounded by international market conditions, and will possibly to run out in the future.

Table 4-1: Public Revenues in Libyan Economy (1973-1980) in Million .L.D

Years	Public Revenues	Oil Revenues	Non-oil Revenues	Percentage of oil Revenues to total Revenues	Rate of Growth in oil Revenues
1973	548.2	429.5	118.7	78.3	-----
1974	1668.8	1443.0	225.8	86.5	236.0
1975	1581.0	1283.0	298.0	81.2	-11.1
1976	2511.0	2021.0	490.0	80.5	57.5
1977	3042.0	2581.0	461.0	84.8	27.7
1978	2758.0	2183.0	575.0	79.2	-15.4
1979	4238.0	3682.0	556.0	86.9	68.7
1980	6800.3	5951.1	849.2	87.5	61.6

Source: Central Bank of Libya, Economic Bulletin, various issues.

Figure 4-1: Public Revenues of Libyan Economy



The government has adopted a comprehensive national approach to planning for economic development, where the preparation and implementation of the three plans allowed us to review the most important objectives as follows:

The plan of economic and social transformation 1973-1975: This plan aimed to achieve high growth rates, especially in various key sectors,

- Achieve overall GDP annual growth rate at 11%

- Focus on agriculture and industry sectors.
- Compulsory education at primary and secondary levels.
- Improve the level of health services.
- Providing of adequate housing.

The pattern of economic and social transformation, 1976-1980: This plan was considered as a continuation of some aspects of the first economic plan, with emphasis on social objectives to achieve the following objectives;

- 1 - To isolate the economy from the dominance of oil sector.
- 2 - Diversification of production and export sector.
- 3 - To pay more attention to agriculture sector.
- 4 - Increase the labour productivity.

The plan of economic and social transformation 1981-1985: This plan adopted the following general objectives:

- 1 - To achieve the higher growth in agriculture and industry.
- 2 - To achieve the maximum likely scale of self-sufficiency.
- 3 - To reduce production of crude oil.
- 4 - Development of human skills by focusing on technical and vocational education.
- 5 - Improve the standard of living and achieve fairer distribution of income.

It can be noted from the overall objectives of the three plans that there is a common denominator in many of them. The development of agriculture and industry to achieve self-sufficiency in agricultural and food products produced locally has been focused on to achieve food security. These plans have also focused on human resource development, and improving the level of services and accordance with policies and strategies adopted by the State to achieve the development goals.

In the agriculture sector the development policies were mainly developed to increase agricultural land reclamation, and reconstruct new agricultural areas, protect the soil from erosion, and prevent sand encroachment, to be economic in the use of water. The industry has adopted a strategy of industrial planning to give priority to the branches of the food industry, building materials, chemical industry, spinning and weaving during the period 1973-1980. However, in the Transformation Plan of 1981-1985 focused on industrial policy priorities in the investment and implementation of export-oriented industries, chemical and petrochemical and refining. The trend towards the establishment of complexes of iron and steel and aluminium in the field of oil policy focused on directing oil wealth according to the public interest and tighter control and supervision of this sector in addition to:

- 1- Rationalizing of production of the crude oil and adjusting rates according to the needs of the economy.
- 2- State control over all activities of the oil industry such as, oil exploration, extraction, production and marketing.
- 3- Improving the contribution of domestic labour in the extraction and the oil industry.
- 4- Increasing reserves of oil and natural gas by adding new discoveries and the use of advanced technology, and working to create advanced oil industry.
- 5- In the health sector raising the standard of health services and the eradicating of contagious and endemic diseases, as well as focusing on preventive health sector initiatives.

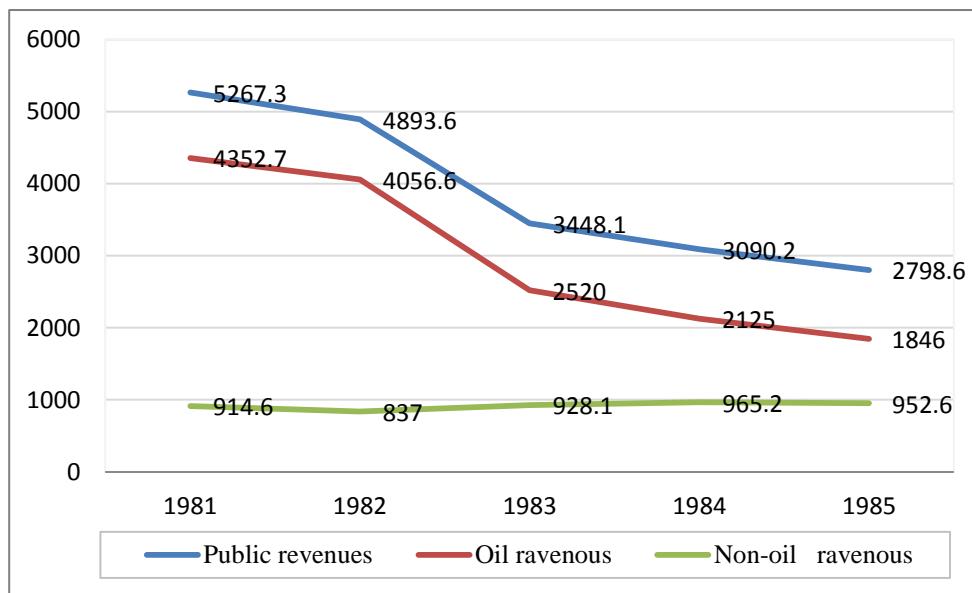
The efforts that have been made during this plan were aimed at developing the standard and quality of human capital. It also highlights the importance of early awareness of the significance of the human element as a necessary condition for the success of any development plans aimed to diversify sources of income, output, and helping to reduce of dominance of the oil sector.

Table 4-2: Public Revenues in Libyan Economy (1981-1985) in Million .L.D

Years	Public Revenues	Oil Ravenous	Non-oil Revenues	Rate of Oil Revenues to total Revenues %	Rate of Growth in oil Revenues
1981	5267.3	4352.7	914.6	82.6	-26.9
1982	4893.6	4056.6	837.0	82.9	-6.8
1983	3448.1	2520.0	928.1	73.1	-37.9
1984	3090.2	2125.0	965.2	68.8	-15.7
1985	2798.6	1846.0	952.6	66.0	-13.1

Source: Central Bank of Libya, Economic Bulletin, various issues.

Figure 4-2: Public Revenues of Libyan Economy 1981-1985



During the period 1981-1985, the Libyan economy witnessed difficulties in the management of financial resources after the decline in the volume of oil revenues (see Table 4-2). This in fact affected the import capacity of the economy and the ability to increase spending in overall investment and trade-offs between investments spending and administrative spending in the structure of public expenditure, especially the public investment spending, which represents the backbone of the investment spending in the national economy.

This has led to a decline in the total investment in the economy, both in absolute values, or as a percentage of the GDP.

As can be seen from the table 4.2, oil revenues throughout the first half of the eighties showed negative growth rates, ranging between -37.9% and -6.8%, which led to a sharp decline in public revenues, and in the percentage contribution of oil revenues to these revenues, which reached its lowest level at 66% in 1985. This was emphasised by the relative stability in the value of non-oil revenues as shown in Table 4.2, which coincided with the reduction of the role of the private sector in economic activities since the early eighties.

4.4 Economic Planning for the Medium and Long-Term

Indeed, the importance of planning stems from the fact that it has become a key instrument in economic activities in many developed and developing countries alike. Where there are many types, such as the planning for long-and medium-term, to short-term planning, the adoption of any type of planning depends mainly on the degree of economic growth reached by the community (Shamyia, 2007).

In this context, planning involves multiple forms and different divisions because of the diverse variations of criteria used. Indeed, economic planning for development in developing economies must be suitable for their needs in order to achieve balance and equilibrium, and restore unbalanced production structures, and achieve a balance in economic structures, such as the production structure and employment structure. Therefore, the developing economy is needs to achieve the proportionality between:

- a. Resources and requirements,
- b. Social capital and productive capital,
- c. Agriculture and industry,
- d. The light industry and heavy industry,

- e. The work and labour productivity,
- f. Savings and investments.

Perhaps that importance gives preference to planning for the medium and long term in oil developing economies, as a tool and optimal means for achieve economic development with all its implications, including an increase in the desired structural diversification in the sources of income, output, and employment. Economists have emphasized and gone further in explaining the justification for economic planning for the medium and long-term in developing countries in particular oil producer, which can be mentioned briefly in the following points:

- (1) The characteristic of a market economy being its deficiencies and the inability to achieve optimal allocation, or even the optimal use of economic resources. This is reflected in the form of rising unemployment, losses of many resources, pollution, and environmental destruction, which often accompanies economic growth in light of the market mechanism. In this situation the investment projects pay attention to the flows of income, expenditure and earnings that have, regardless of the negative social and environmental impacts that these may cause to their economic activities.
- (2) The inability of the market mechanism to be an accurate indicator of demand for many goods and public services, which would improve the standard living of the population, such as: services related to security, defence and economic policies, and primary health care services, education and training, etc. This is despite the high social returns from these services, and their prospect of achieving high economic returns that would distribute the benefits to all economic projects in the long term. However, the potential returns would be to the owners of private investment, and would not be reflected in the rate of profit achieved by private projects, despite increasing the demand for this type of service with an increasing level of economic growth.

(3) The investments in public utilities projects are characterized by a long-term investment, and often need many years both to be completed, or gain its payback, which does not constitute a positive incentive for private investors to shift towards investment in these specific projects. This in turn highlights the importance of planning for the long and medium-term as alternative means to the market mechanisms due to the inability of the market to provide sufficient incentives to invest in these projects.

(4) It seems that the importance of planning for economic development also stems from the fact that a market reflects the current economic situation as it currently appears and not as it would be in the future. This is a relevant outcome which has to be considered by the investment decision makers, so that one can see that investments nowadays would have subsequent impacts on the futures of the aggregate of demand and supply. Thereby, the current investments would create a new productive capacity and increase the current production capacity, which in turn would change the conditions of supply. Moreover, the new investments create new incomes and increases in current income levels, which subsequently change and increase demand conditions (Ziyed, *et al*, 2009).

Therefore, these changes in the conditions of supply and demand may eventually affect the price levels in the market, which would have an impact on the ability to predict the level of prices in the future, which is unlikely, due to the lack of the required coordination between the factors of supply and demand. This would be reflected in the form of a decline in the level of proportionality or consistency at the macro level of the economy, possibly leading to bottlenecks in the market, or vice versa, which directly affects the unlikely coordination between the investors themselves at different levels on the one hand, and between investors and consumers on the other hand.

Consequently, these justifications give a special importance to economic planning for the medium and long term, especially in the developed countries,

where the productive structures are more balanced and flexible, and where the private sector is strong. In developing countries therefore, is possible to add more rationales, and call for a greater role for planning as the best method for economic development, the most important mainly;

- The market is characterized by a high degree of inactivity because of the economic and social factors; this implies a lack of the elastic shift of production factors among different uses.
- The rule of social systems has hindered the expansion of the market, and the potential transition towards the structural diversification of production and employment.
- The lack of a social capital sector, separate from the activities of the private sector in developing countries, hinders development in its various aspects, and reduces the incentive to establish other productive investments.
- The factors price of production does not reflect its relative abundance due to the deficient of markets.
- The weakness of private savings, compared to the requirements of most economic projects, which has critical importance in the process of the structural transformation desired to achieve development in the developing economy.

In addition to these elements, other factors highlight the importance of planning in the Libyan economy; most notable is the characterization of the Libyan economy as a single of resource. For instance, the State is the owner of the main sectors generating income and output (oil and gas). The private sector plays an insignificant role in economic activities, due to the its relatively small size, both in terms of its contribution to gross capital in the economy and employment, or to providing the savings needed to fund the required investments to shape the process of economic development in all its aspects.

Considering the features of the Libyan economy and its requirements for development is therefore the key point in the context of this study, as is giving the rationales of economic planning especially in the medium and long term. Thus it is imperative to demonstrate the relationship assumed between the types of planning on the one hand, and between the roles that the State is supposed to play in the economic activity on the other hand. In this context, the importance of economic planning for the medium- and long-term arises from a number of reasons including:

- (1) The process of economic and social change that is needed in development work, for instance the increase in living standards and structural changes calls for efforts extending over more than five years, and most likely between fifteen and twenty-five years. This implies that this type of process cannot be achieved solely within a long-term strategy vision determined by the elevated objectives of the society and the means to be used in order to achieve these goals.
- (2) There are many strategic projects that can be only implemented throughout a long time required periods of more than medium-term plans, as the direct and indirect effects of these projects exceed the time dimension of the plan in the medium term, such as the Man River Project in Libya and High Dam project in Egypt.
- (3) Adopting a method of planning for the long term has to establish a manufacturing base compatible with existing needs and goals targeted in the future.
- (4) The long term plans represents a general framework in which medium-term is formulated, which constitutes tied episodes to reach the strategic objectives of the long term plan undertaken.
- (5) A medium term plan's time ranges between five to seven years including intermediate objectives, such as determining the level of growth in output and national income, and on the required changes in the structure of output and growth rates of its components.

Therefore, the experience of the Libyan economy has demonstrated that the abandonment of development planning for the medium and long-term was regarded as the most prominent factor in the deterioration of the outcomes of development efforts undertaken after 1986, which are highlighted by the reports issued by the Central Bank of Libya (2005, and 2006). Its main analysis underlined the causes of decline in development performances and low production capacity, especially in the sectors of commodity production in agriculture and industry. This highlights the high importance of planning in the Libyan economy. It also points out that, economic development cannot be achieved independently, which demonstrate the necessity for the State to play a leading role in the development process, which able to achieve its objectives or determine its means only through long-term strategic vision, being the economic planning for development is the fundamental, and thus the most appropriate mechanism to achieve this strategy.

4.5 Economic Policies

Economic policy is an important element in achieving economic development, because it comprises factors to stimulate for economic growth through their impacts on the elements of aggregate demand. Thus, the success of economic policies to achieve their objectives requires a high degree of coherence among fiscal and monetary policies and trade in particular, since the lack of a coherent package of these policies would lead to hindering development work. At the outset, it should be remembered the fact that the economic literature is full of conflicting view on the role of economic policies in the process of economic development (see for example: Chenery and Syrquin, 1975, and Easterly, 2003). The common agreement is that economic policies should not be overemphasized. To mention but few of developing countries experience, Libya, as an oil producing country, has adopted an programme of diversification, but the results have been limited.

In this context, countries often seek through its economic policies to create stable economic and political environment at the macro level leading to make economic growth, and achieving economic development objectives. Economics literature indicates in this respect (Stanley, 1993; Ben-Hammouda, *et al*, 2006; UNECA, 2007), that the macroeconomic framework is stable when inflation is low and predictable, when interest rates are appropriate and fiscal policy is stable, and when exchange rate is competitive and predictable, while the balance of payments at a good degree of stability. Thus, economic growth is inversely associated with inflation, and positively correlated with the stability of financial and foreign exchange markets. In this context, the importance of any of the economic policies are varied according to the differences in the characteristics of these economies, mainly is the degree of development, economic growth, and the elasticity of economic structures towards changes in policy trends, in addition to the ideology that is adopted and the nature of the current economic system. For instance, in developing countries, in particular oil producers, the fiscal policy plays a relatively greater role in affecting the elements correlated to economic development, especially those related to achieving a high degree of economic diversification, where this fiscal policy represents the State's instrument to intervene in the development work in order to achieve their target objectives.

Hence, in Libya's economy, the poor performance of financial markets and the novelty of its establishment confined the role of monetary authorities to influence the monetary variables in the economy. This is pertinent where this role is confined mostly to direct intervention procedures, such as control of the banking system and the volume and quality of credit, and the size of liquidity in the economy² (Central Bank of Libya, 2006:47).

² See annual report (2006), which illustrates “The Monetary base and the Factors Affecting It”.

Moreover, the high degree of economic openness to the global economy is relatively large, compared to the small size of the Libyan economy which is relatively small, and sources of income generation is also narrow into it. Thus, the monetary authorities would lose their control on monetary variables (such as the monetary base and money supply) which weaken the role of monetary policy in influencing general economic activity, and economic development in particular when using its traditional tools. Moreover, there is a limited impact of monetary policy tools on items associated with spending at the macro level, due to of social factors, such as reluctance to borrow from banks for religious reasons, or because of the low level of awareness of savings. Indeed, the ultimate impact of fiscal policy on the development process can be determined through what been allocated to be spent on the development of other sectors in the economy, in order to achieve structural diversification and reduce dependence on oil. Thereby, the public budget represents the link between the export sector of oil and the other economic sectors. The oil revenues or allocations to the public budget of this revenue, represents a major component in financing public spending, which in turn contributes to financial investment process in the traditional economic sectors.

Perhaps most of the findings in the context of this study call for to focus on fiscal policy in the Libyan economy as one of the appropriate mechanisms of raising the level and efficiency of its performance goals linked to economic development in Libya, most importantly the goal of economic diversification. The impact of fiscal policy in the Libyan economy is not only to stimulating elements of aggregate demand in the economy directly, but also to offer employment opportunities, and achieve economic and social stability, which will ensure the provision of a secure investment climate to push the process of economic growth.

4.5.1 Fiscal Policy and Hydrocarbon Revenues in the Libyan Economy

One of the central policy instruments that governments have to influence economic activity is fiscal policy. Over the years, both developed and developing countries governments have used fiscal policy to stabilize economic activity, promote growth, and manage terms of trade shocks (Diop, et al, 2012). State intervention plays an important and key role in economic activity, especially in developing countries, through its monetary and financial instruments, or through its intervention directly in economic activity. It is recognized that the demand for public goods and services increases alongside increasing rates of growth and increases in per capita income, which increase the important role of government as major provider of these goods and services that the private sector are unable to deliver. This is due mainly to its high social returns compared with its economic returns.

Economic diversification, particularly in resource rich developing countries, has depended on fiscal policy to help lay the foundation for successful growth. Therefore, the State often uses fiscal policy to achieve economic stability, in a form which ensures a secure and a stable environment, that contribute to raising the rate of investment into the domestic economy. As well as it guaranteeing the satisfaction of the basic needs of goods and services to citizens, such as education, health care etc. However, the role of the State in some of oil producing countries went beyond its role in developed countries regarding the direction of intervention and leading of economic development process, through the access of economic activities in industry, agriculture and services provision, due to the weakness of the private sector in terms of technical, financial management. In addition, it was needed to address the shortfall of private savings in these countries to achieve the capital accumulation required for economic development and economic diversification through manufacturing (Zayed, at el, 2009). Fiscal policy (mainly expenditure policy) has two roles to play in the region as a stabilizer for terms-of-trade shocks and as a tool for

longer-term growth and development. This indicates that the importance of the financial sector in developing countries specifically, in terms of its contribution to ensuring the achievements of higher rates of growth in developing economies in the direction of accelerating the shift towards diversification of the structure of output and employment, and thus diversifying the sources of income, and getting rid of the dependence on the primary production sector. In the Libyan economy the public budget represents a link between the oil export sector and the rest of the economy, where oil revenues or allocations of public budget from these revenues constitute an important element in financing public spending, which contributes the lion's share in financing the investments needed to drive the process of economic development (Shamia, 2007).

Studying the public budget conditions and fiscal policy in the Libyan economy, alongside requires the mechanism by which to adjustments can be made to the conditions of the public budget, that lead to boosting economic growth and development, and achieves the goal of diversifying the sources of income, output and employment. It is worth to begin studying the structure of public revenues given the fact that it is so heavily reliant on oil revenue, due to the weak economic activity outside of the oil sector, and thus weak non-oil revenues on the other hand. It is also due to easy access to oil revenues, making it an attractive source of revenue for the fiscal authorities, weakness the incentives to search for alternative sources of revenue.

4.5.2 Public Revenues

Commodity boom can affect the government's public budget. When export commodity sore, government revenues increases sharply. This occurs directly if the resources are owned by the public sector, as is common in petroleum, or indirectly through increased higher income tax revenues. The boost in revenues can encourage governments to commit to long term and expensive programmes and projects. When commodity prices decline, counties are often worse off than before the boom. In the Libyan post oil boom of the 1970s and early 1980s, the shortfall of revenues so severe. Thus, since the government tend to increase its expenditures with wonderful tax revenue, fiscal policy tends to be procyclical and hence causes instability in the economy. This, according to Cuddington (1980) has a detrimental impact on long term economic growth.

Whilst developed countries rely on income tax as an important element in the structure of public revenue, developing countries depend on foreign trade taxes, or the proceeds from exporting a few primary commodities or one main single commodity of export in its structure of public revenues. While public revenue in developed countries was categorized by being relatively stable, in oil producing countries revenue was characterised by a tendency towards instability in particular oil-producing countries. For instance, the government revenues in the some oil MENA countries fluctuated between 25.4% and 41.2% as a percentage of the GDP, whereas in developing countries fluctuated between 16.9% and 20.0% as percentage of the GDP in the period 1980-1995, though this proportion ranged between 20.7% and 21.4% in advanced industrial countries for the same period (Eken, 1997). This indicates that developing countries enjoy public revenues with a much higher degree of stability when compared to the volatility suffered by oil reliance countries, especially in the MENA countries, which depend on the structure of revenue on rentier sources such as exports of crude oil, phosphates and other minerals sources as their primary commodities.

The data presented in Table 4.3 indicated that the proportion of oil revenues to total public revenues had reached high levels, especially in the early nineteen-eighties, where the comparison shows that these high rates were accompanied to a large extent by rises occurring in oil prices and quantities exported after the first and second of boost oil prices in 1973 and 1979 respectively. While similar data illustrates a decline in the share of oil revenues in the structure of public revenues coupled with a decline in oil export earnings. In this context figures illustrated in Table 4-3 reflected that the proportion of oil revenues or the allocations of the public budget from these revenues had reached at 87.5% in the 1980 and amounted their peak levels to 92.6% in 2005. This indicated that high relative importance of oil revenues in the structure of public revenue in the Libyan economy; it also means that the increase in public revenue has achieved growth rates higher than the growth in the non-oil revenue, between 1973 and 1980 in particular. This did not occur as a result of high efficiency of fiscal policy, or shifts in the economy towards structural diversification, but rather it was due mainly to the reflection of external factors, reflected in, for instance, the increase of oil revenues, due to increases in crude oil prices and the quantities of oil exported abroad.

This implies the existence of a causal relationship between the trade balance and the public budget of the State, or between the structure of foreign trade and financial structure of the Libyan economy. This finding coincides with others findings (e.g., Bergs, 2004), regarding the interaction between the financial sector and the external sector in developing countries that export a primary commodity. Therefore, the external shocks represent an essential element which causes financial imbalances in developing countries in general, and in the oil based economies in particular. The likely consequence of a decline in the export side, a decrease in income, and the items linked to public spending, would cause a severe impacts on the overall public budget, reflected in the form of deficit in

public revenue as a result of the deterioration of export earnings on one hand, and due to the decline of economic activity on the other hand.

Table 4-3: Public Revenues in the Libyan Economy (1973-2010) in Millions L.D

(At constant price)

Years	Public Revenues	Oil Revenues	Non-oil Revenues	Oil Revenues to total %	Rate of Growth in oil revenues
1973	548.2	429.5	118.7	78.3	-
1975	1581.0	1283.0	298.0	81.2	199.0
1980	6800.3	5951.1	849.2	87.5	364.0
1985	2798.6	1846.0	952.6	66.0	- 69.0
1990	2860.0	1600.0	1260.0	55.9	- 13.3
1995	3981.4	2940.4	1041.0	73.9	83.8
2000	4662.2	2203.0	2459.2	47.3	-25.0
2005	37106.0	34378.0	2728.0	92.6	1460
2010	61503.1	55713.0	5790.1	90.6	62.1

Source: Central Bank of Libya, Economic Bulletin various issues

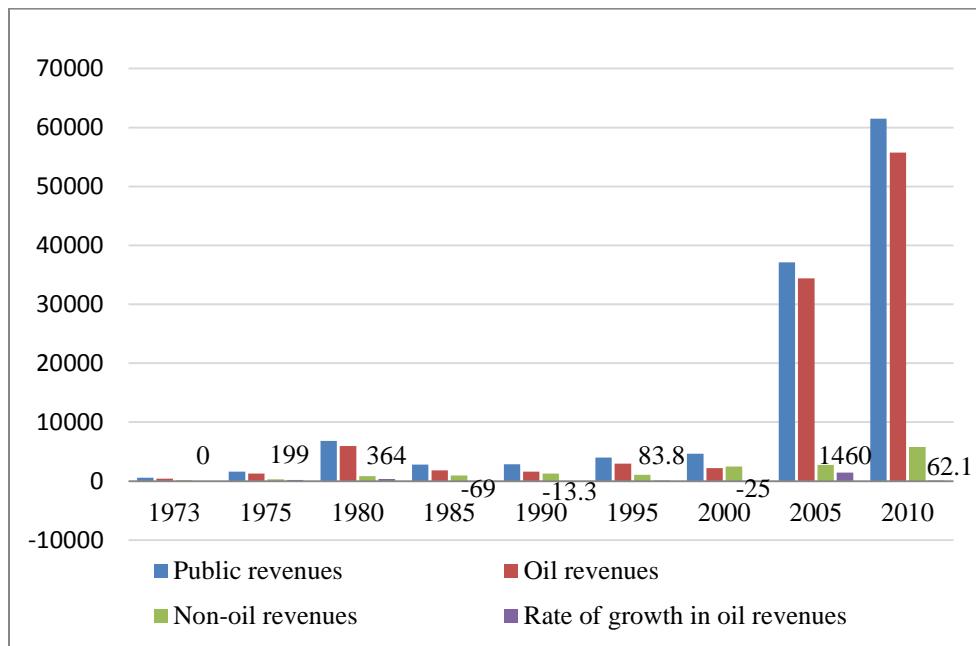
The rate of growth in oil revenues can be calculated by applied the following simple equation; $yt - yt-1/yt-1 = (\text{value}) * 100 = \text{rate of growth}$

Where, yt : is the oil revenues in the current period, and

$yt-1$: is the oil revenues in the previous period

For instance, $yt 5951.1 - 1283.0 = (4668.1 / 1283.0) * 100 = 364.0$

Figure 4-3: Rate of Growth in Oil Revenues of Libyan Economy
 (1973-2010)



In Libyan economy, after the drop in oil prices, and the deterioration of oil proceeds in revenues since 1981 have fallen from 5951.1 million dinars to 1846.0 million diners between 1980 and 1985, (see Table 4.3). A drop in oil prices was placing a huge strain on the Libyan state's ability to finance its inefficient public sector (Otman and Karlberg, 2007). As a result, public revenues declined sharply to about 2798.6 million dinars by the year 1985. This coincided with a shrinking tax base because of government control over most economic activity, following the decisions and procedures that led to restricting the role of the private sector in the overall economic activity.

However, a noticeable change in the structure of public revenues can be seen during this period. Oil revenues increased sharply between 2000 and 2010, as indicated in Table 4.3, which has incredibly changed the structure, where the rate of growth in oil revenues has increased by 1460% in 2005, owing to increased oil prices. Hence, the increase in the absolute values in non-oil revenues and their high relative importance can be attributed to the degradation

rates of growth in public revenues, due to the decline and volatility of oil revenues. More so, owing to the relative stability in public expenditure, which is the main determinant of economic activity outside the oil sector, especially when the private sector started to take place in economic activity since 1989.

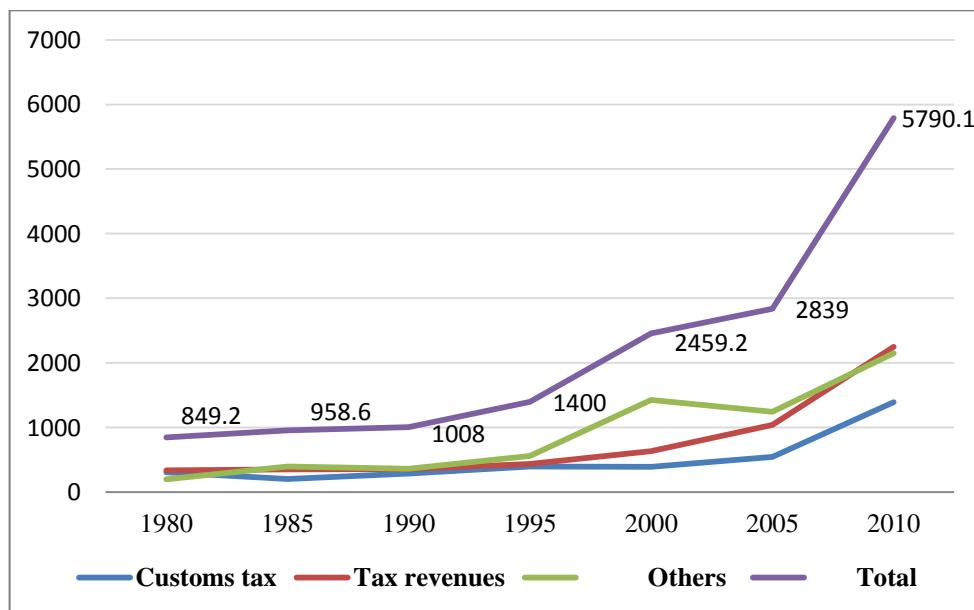
Table 4-4: Distribution of Non-Oil Revenues (1980-2010) in Millions L.D

(At constant price)

Years	Customs Tax	Tax Revenues	Others	Total
1980	308.0	339.2	202.0	849.2
1985	206.5	352.8	399.3	958.6
1990	287.1	357.0	363.9	1008.0
1995	400.0	438.0	562.0	1400.0
2000	395.2	637.1	1426.9	2459.2
2005	548.0	1044.0	1247.0	2839.0
2010	1393.9	2247.5	2148.7	5790.1

Source: Central Bank of Libya, Economic Bulletin various issues, 2011

Figure 4-4: Distribution of Non-oil Revenues



Indeed, the impact of instability on the proceeds of oil revenues can be recognized on public revenues, including non-oil revenues in the Libyan economy through several channels. Initially, the consequential effect of oil price volatility results in fluctuations in companies' income taxes or transfers the returns activity of these companies to the governments. In addition, a significant portion of import taxes enhances the effect changes in exports on at least two channels; the first one is that exports of crude oil represent an important component of total income in the economy, which constitutes an important determinant of imports, and subsequently for taxes on imports. Secondly, the exports are a major constraint on imports. Therefore, due to the decrease of foreign reserves coupled with the decline and volatility proceeds of oil exports, thus these declines directly shift to imports, and then to taxes on import.

For instance, customs revenues have fallen from the amount of 308.0 Million L.D in 1980 to 206.5 Million L.D in 1985, and then rebounded and increased to about 287.1 Million L.D in 1990 combined with the economic recovery, which began in 1989, see Table 4-4. All of this has been accompanied by trade policy restrictions on imports of the Libyan economy (policy restrictions on imports) since 1980, which contributed to the decline of tax revenues on imports. There was volatility in the export earning of oil in Libya economy, that arose from fluctuation in crude oil prices and the quantities exported to the global market. This requires the State to take measures that would mitigate the negative effects of such fluctuations on the performance of the domestic economy, and its growth rates. The state must maintain a balanced distribution of the available resources between consumer expenditure and public investment spending, in order to avoid the negative effects of instability in the resources of foreign and local exchange on the decisions concerning allocation of resources in different uses, and therefore, on growth and economic developments.

On the other hand, the lack of stability in the public revenues of the Libyan economy have contributed significantly to the instability of public spending and the instability of the overall budget deficit. In other words, the insufficient fiscal policy instruments on the revenues side of Libyan economy, due to its reliance on oil revenues in the structure of public revenues. This has led to the emergence of many difficulties when the State develops and implements its plans and financial programmes. This has led to the abandonment of development planning for the medium and long term. Moreover, because of the discontinuation of many projects and development programs owing to uncertainty concerning the size of oil revenues that can be obtained, there is uncertainty surrounding the provision of necessary funding for economic and social development projects as a whole. Indeed, considering this actual situation, the state has to face two main options, either to maintain the stable deficit in its budget, which would lead to volatility in public spending, and thus create different sources for economic and social costs, or to maintain the stability of public spending, which would lead to fluctuations in the deficit, either as an absolute value or as a percentage of the GDP. It would further lead to fluctuation in domestic finance and domestic prices, and overall negative effects on economic development goals, including economic diversification as a main objective.

4.5.3 Public Spending

Public expenditure has a great interest because of the role it plays in the provision of public goods and services that the state policy has to provide in the context of economic and social welfare and income redistribution. Moreover, the attention given to public spending in developing countries is more important than the actual leadership role played by public investment in the process of economic and social development, and ensuring the structural change is accompanied by development.

Although the role of public expenditure in economic growth is still the subject of debate among the academic communities, e.g., Fasano & Wang (2001) their findings noted to the important role it plays in enhancing economic growth through several channels. Thus, its impact is mainly evident in the direct contribution of public investment spending in the available physical capital stock, given the assumption that public spending efficiency should not be less than capital spending. In addition, the annual increase in public investment (budget transfer), or in the human capital formation resulting from this increase, may have a positive impact on the growth which may not emerge immediately, because of the long payback period. Additionally, public spending on scientific research and development (R&D) may lead to increases in the potential growth in the long term. Accordingly, the current expenditure (administrative) is more likely to be associated with positive growth, if it was mostly directed to maintaining the material balance of society, in the form that is reflected positively on technological change. In addition to the contribution and the direct impact of public spending on economic growth, the indirect effect arises from the perception of a complementary relationship (not equal) between public investment spending and private investment spending. This indicates that public projects that can enhance the promotion incentives for investors in the private sector, lead to an increase in private investment, and increased rates of economic growth accordingly. In oil-producing countries, the effective channels for transfer of growth from the oil sector to other sectors in the economy are determined basically by the public budget. Thus, the financial linkages constitute an important factor in the oil-exporting countries, where government ownership of the oil sector is the main source of income generation output and revenues in these countries.

In the Libyan economy public spending has played a leading role in the process of economic development. This is due to the weakness of the private sector in terms of financial, technical, and management, on the one hand, and owing to

the state ownership of the income of oil and gas as the main source of influence on the components of spending, and in providing of hard currency on the other hand. As a result, through its expenditure the State become totally responsible for achieving the desired diversification in the structure of production and employment, and getting rid of its dependence on a single source of income, and all consequential negative effects which may arise because of it. The data contained in Table 3-5 show an increase in the relative importance of public spending in the GDP, which reached the level of 66.4% in 1984 compared with a level of 40.3% in 1973.

Having demonstrated the increasing role of the State in economic activity during the past decades, it indicated, on other hand, the positive correlation between the abundance of oil revenues and the expansion of public spending. This period was characterized by the availability of revenue, as a result of the first and second oil booms in 1973 and 1979 respectively. Apparently, the trend of public spending was growing excessively during the years of oil export prosperity. This is an indicator of the possibility of the State expanding public spending without resorting to fiscal policies involving the imposition of new taxes or new fees, or making any changes in tax regulations, or resorting to internal or external borrowing. It also illustrates that the State has not resorted to distinguish between the types of public spending and spending priorities, and between economic and social programmes for development, but rather its development plans were adopted independently from the revenue side, because of the availability of funding sources needed. Due to the decline and deterioration of oil revenues, especially with the decreasing price of a barrel of crude oil to its lowest level in 1986 (about \$13 a barrel), (EIA) subsequently was sharply effected on developments in public spending, especially those associated with per capita public spending, or by the determination of spending priorities and its distribution among administrative spending and investment spending for the year. Perhaps the conduct of policies associated with expenditure, and sources of

financing public expenditure in the Libyan economy, provides a clear example of what also known in economic literature by "Please Effect", or Standard of Mansfield (1980). This where fiscal policy has been expansionary in the years of shrinking export earnings, and deflationary in the years when export increased. Hence, the decline and volatility accrued in public revenues would in turn lead to declines and fluctuations in public spending, which could result in a decrease in the efficiency of development planning, and ultimately leads to reducing the level of investment. Thus, public spending has achieved unstable growth rates in the same context concurrently with the volatility of oil revenues since 1989. Investment spending declined sharply and simultaneously with the abandonment of development planning for medium and long term periods, and was replaced by the annual budget development. The relative stability in the level of administrative spending reflects the State's keenness on maintaining almost the same levels of public service that are provided to citizens. Especially considering some items involved in such expenses are sensitive to any discounts that may occur, such as subsidy of goods and services, or expenditure on education and healthcare unless only to the level of sufficiency. However, with mention to the sharp decline in investment spending, new tendencies were disclosed in the fiscal policy in the Libyan economy, reflecting to a large extent the impact of declines that occurred in the size of the availability of oil revenues. This indicates that the lack of stability in oil revenues is the most important element in the interpretation of instability in the public spending, and in the interpretation of changes in the relative importance of its components. In spite of the international reserves and domestic borrowing which has dealt with compensating for fluctuations which occurred in public revenues of the Libyan economy, but their impact was limited and negative, especially on the elements supporting economic growth and diversification of the structure of the economy.

Table 4-5: Public Spending in Libyan Economy (1973-2010) in Million .L.D

Statement Years	Current spending (expenditures of administrative budget)	** Public investment spending	Total public spending	Current spending as % in GDP	Public investment spending as % in GDP	Public spending as % in GDP
1973	465.4	413.4	878.8	21.3	19.0	40.3
1980	2350.5	2551.6	4902.1	22.3	24.2	46.5
1981	2551.6	2475.6	5027.2	29.0	28.1	57.1
1982	2456.3	2688.3	5144.6	27.5	23.6	51.6
1983	2380.9	2011.1	4392.0	28.0	23.6	51.6
1984	3158.5	2025.0	5183.5	40.5	25.9	66.4
1985	2229.2	1402.7	3631.9	28.4	17.9	46.3
1986	2055.0	1117.1	3172.1	30.4	16.5	46.9
1987	1615.8	788.8	2404.6	27.2	13.3	40.5
1988	2195.7	722.4	2918.1	35.6	11.7	47.3
1989	2520.0	823.4	3343.4	35.5	11.6	47.1
1990	1997.4	702.0	2699.4	25.8	9.0	34.8
1991	2375.7	723.3	3099.0	28.1	8.6	36.7
1992	2755.4	396.8	3152.2	31.4	4.5	35.9
1993	2123.9	405.5	2529.4	22.9	4.4	27.3
1994	2245.9	507.3	2753.2	22.7	5.1	27.8
1995	2370.0	318.9	2688.9	22.4	3.0	25.4
1996	2887.8	660.9	3548.7	24.5	5.6	30.1
1997	3505.4	943.0	4448.4	26.6	7.2	33.8
1998	3187.3	588.9	3776.2	24.0	4.4	28.5
1999	2966.9	794.1	3761.0	21.1	5.6	26.7
2000	3153.2	1541.0	4694.2	17.9	8.7	26.6
2001	3596.6	1539.0	5135.6	20.0	8.5	28.4
2002	4210.3	3701.7	7912.0	16.2	14.3	30.5
2003	3577.7	2530.0	6107.7	11.3	8.0	19.3
2004	4144.7	3581.4	7725.7	10.0	8.6	18.6
2005	8282.0	10273.0	18555.0	14.8	18.3	33.1
2006	9054.0	11039.0	20093.0	11.5	23.5	24.9
2007	11890.0	18993.0	30883.0	12.8	21.3	34.6
2008	11874.8	28903.3	40778.1	10.2	24.8	35.0
2009	10252.9	18983.9	29236.8	11.9	22.0	33.9
2010	15121.3	23729.4	38850.7	14.7	23.1	37.9

Source: Central Bank of Libya, Economic Bulletin, various issues up to 2011, Government of Libya

** Based on actual expenditure on development (transformation) as a substitute of public investment spending.

4.5.4 Economic and Social Development during the Period (1986-2010)

During this stage, two important events were reflected directly on the sectoral contributions to gross domestic product (GDP). The first was the contraction of oil revenues because of the deterioration of prices and declining demand in world markets, the second was the imposing of economic sanction, and a set of political constraints, which left evident impact on those contributions. This period was characterized by relative stability in oil prices at low levels, which had a negative effect on the size of development spending, with sharply declining oil revenues during the period 1986-1988. This amounted to 898 Million L.D by 1988 compared to roughly 5951 million dinars in 1980. It also fell to the level of 761 million dinars in 1994. Although its values fluctuated in some years, the overall trend of oil revenues was a downward compared to the seventies.

Therefore, the instability in oil export earnings, and the proceeds of oil revenues in total public revenues in the Libyan economy, as well as the narrowing of the tax base, have contributed to the instability of public spending, both administrative and development. In addition the instability of public budget deficit, this was attributed mainly to the features associated with the limited tools of fiscal policy on the revenue side. If the fiscal policy instruments are limited in the revenue side, many of the difficulties would arise when the state develops and implements financial plans and development. In this regard, the government has two options, either to maintain a stable path of budget deficit, which would lead to fluctuations in public spending, and then create different sources of economic and social costs, or to maintain the stability of expenditure. Maintain stability would cause excessive fluctuations in the budget deficit, both as an absolute value or as a percentage of GDP, leading to fluctuations in domestic funding and in the domestic prices, and would have a subsequent effect on the overall development process that has been made to make the structural change desired in the structure of the national economy.

With regard to the contribution of the private sector in gross fixed capital formation by economic sectors during the period under study, it has shown insufficient private investment in agricultural and industrial sectors to serve the objective of economic diversification. However, rather its direction was mostly to commercial and service businesses, and to invest in non-tradable goods for international exchange. This in turn make the private sector contribution modest to diversify the structure of national economy, and increasing the contribution of the commodity production sectors in the structure of GDP, in a form which reduces dependence on oil, either in the structure of output or in the structure of exports.

The data in this regard indicates that private sector investments confined mostly to activities such as home ownership, transportation, storage and transport, which accounts a high percentage in gross fixed capital formation in the private sector, amounted to an average of about 85.1% during the period 1993 to 1999. However, these investments declined to low levels in other sectors such as agriculture, industry, finance, insurance and business services. In this context, the gross fixed capital formation in the economy remain stable at relatively low levels, both in absolute values or as a percentage of GDP, which is an indication on the deterioration of the State's role in economic development. Moreover, the structural changes that have occurred in public spending since the mid-eighties, as well as a low proportion of development expenditure (budget transition) to GDP is another an indication, due to oil revenues have been increased in the direction of administrative spending, and decreased in public spending, see Table 4.5.

As we can see, the variation occurred in the public expenditure components, where the administrative spending has inflated compared with development spending. Its relative importance has fallen in the structure of public spending from 52.1% in 1980, to 38.6% in 1985 to 26% in 1990, and then increased gradually to reach the level of 46.3% in 2004, and reached its peak to 70.8% in

2008 as shown in Table 4.6. In addition, the proportion of development expenditure to GDP has continued to decline, to relatively low rates during the 1990s decade. In 2000 this figure began to rise to reach 8.8%, and recorded two substantial rises of 15.3% and 21.1%, and 17.5 in 2006, 2007, and 2010 respectively. As a consequence of restructuring the economy through the ownership of state enterprises, and giving private sector a larger role in the economic development and structural transformation. However, the decline of gross fixed capital formation as a percentage of the GDP represents an additional indicator of the lack of ability of the private sector to achieve the necessary capital accumulation to make an effective contribution to diversify the productive base in the economy, given the decrease of development efforts made by the State.

Table 4-6: Public and Development Spending in the Economy

(1975-2010) in Million .L.D

(*At constant price*)

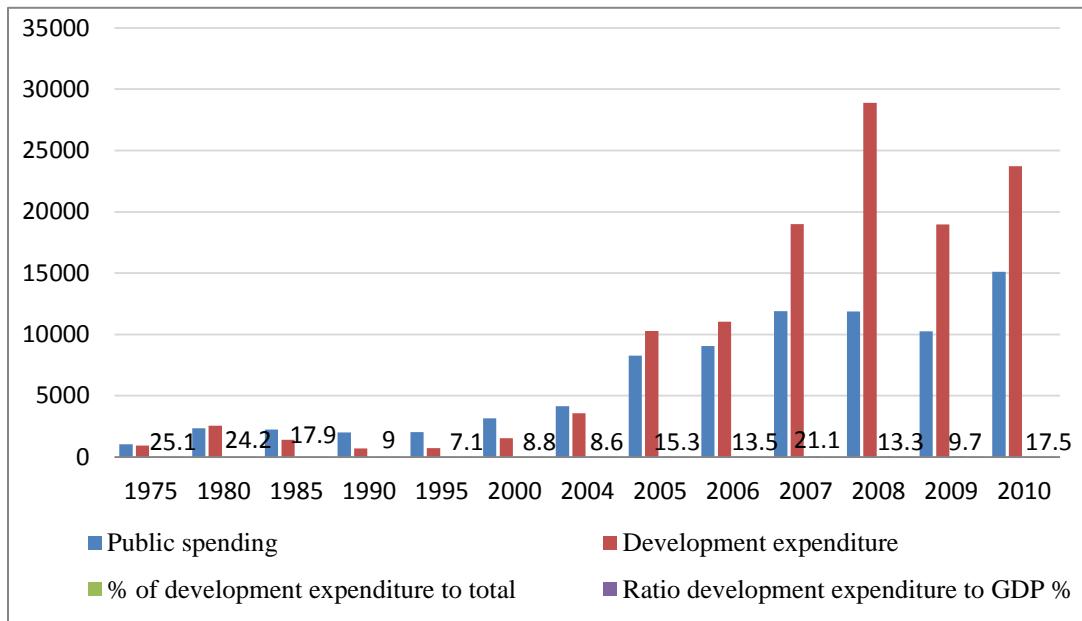
Year	Public spending	Development expenditure	% of development expenditure to total	Ratio development expenditure to GDP %
1975	1044.3	923.2	46.9	25.1
1980	2350.5	2551.6	52.1	24.2
1985	2229.2	1402.7	38.6	17.9
1990	1997.4	702.0	26.0	9.0
1995	2026.0	714.0	26.1	7.1
2000	3153.2	1541.0	32.8	8.8
2004	4144.7	3581.4	46.3	8.6
2005	8282.0	10273	55.3	15.3
2006	9054.0	11039	54.9	13.5
2007	11890.0	18993	61.5	21.1
2008	11874.8	28903.3	70.8	13.3
2009	10252.9	18983.9	64.9	9.7
2010	15121.3	23729.4	61.0	17.5

Source: Ministry of Planning, National Accounts: various issues;

- Ministry of Planning, Economic and Social Indicators 1962- 1996

- Central Bank of Libya, the Economic Bulletin, various issues

Figure 4-5: Ratio of Development Expenditure to GDP %



As previously noted economic diversification aimed to reduce the oil sector's contribution to the structure of the GDP in the Libyan economy, the structure of exports, and the structure of public revenues. As well as this, it involves reducing the role of the public sector, and supporting for the role of the private sector in the process of economic development. In general, economic diversification aims to expand and increase the opportunities of domestic investment and foreign direct investment (FDI). In particular, strengthening backward and forward linkages between all sectors of the economy, in the form of achieving economic stability and diversifying sources of income and revenues, and increasing the value-added sectors of the national economy, thus speeding up the development process.

The public spending on the development of the Libyan economy aimed to achieve an appropriate degree of diversification in the structure of the national economy. However, the results were less than desired, which underlines a very important question: 'why have the development policies pursued failed to accomplish their diversification goal?' Taking account for those associated with

domestic policies or those associated with external factors, which demonstrate that the availability of investment alone is not sufficient to achieve economic development.

Economic development and its structural changes is a cumulative process, which at first glance requires continuity and sustainability. However, the economic development process in Libya has deteriorated, due partly to low oil revenues, and changes of spending priorities when trade-offs between economic objectives and social objectives of development occur. This in fact has led to the lack of diversification endeavours, which in turn lowered the public spending and created only a sluggish structural transformation, and even more deepen the imbalance in some years. On the whole, we can argue that the decrease in the development efforts aimed at diversifying the economic structure was due to the interaction between a set of internal and external factors. Some related to external factors such as, decline of oil prices, and economic sanction. Others are linked to domestic policies, and structural changes experienced by the Libyan economy during the period under study, which can be summarized as follows:

The lack of strategic vision, due to the absence of perspective development for the medium and long term since 1986. This has played a key role in the deterioration of development efforts to diversify the economy as a strategic objective, because many of the economic plans that were drafted have not been implemented, and the annual budget for the development has continued to rely mainly on oil revenues (Zayed, el al, 2009). The economic sanctions imposed since 1992 also served to limit the ability of the State to direct more investment towards accomplishing the objective of economic diversification. These economic sanctions have caused a significant loss of material in the petroleum and energy sector reaching more than seven billion dinars according to official estimates, which is the main sector that the State's depends on for the financing of economic development. The total losses of the economic sanction on the Libyan economy reached to about 22 billion dinars during the period 1992-1998

(Shamyia, 2007). This has led to declining growth rates in the economic sector, which will also have negative implication on the rates of growth in other economic sectors. Moreover, decrease the potential contribution of the oil sector as a major provider of hard currency to cover the foreign exchange gap. Moreover, the policy that sought to increase foreign reserves after the economic sanction, and economic sanction imposed by UN, and the policy of spare oil revenues have contributed, to a certain extent, in reducing the availability of resources that were allocated for development towards diversifying the structure of the national economy. This policy has led the Libyan assets to increase respectively from the amount of 1264.5 million L.D of gold and foreign currencies in 1993, to 7047.7 million L.D in 2000, to 26398.8 million of L.D by 2003 (Shamyia, 2007). Its impact can be seen when the opportunity cost taken into consideration, and thus, the consequent effects on economic growth rates, structural changes, and levels of employment.

4.5.5 Public Debt and Deficit Financing

The variations between the rates of growth of public revenues and public spending has led to an increase in the budget deficit, which allows the State to resort to borrowing from local banks, in order to finance the existing deficit in the budget. This inevitably cause led to an expansion in the monetary base, because of the increase of one of its components, notably the domestic assets, and his accordingly increased the money supply, and monetary policy has lost its independence and become a tool of fiscal policy instruments. It is noteworthy in this context that the effect of expansionary fiscal policy (debt finance), particularly in the oil producing countries may be limited in the rate of growth of employment and output, while its negative effects seems to be great on the rate of inflation and the balance of payments. This is due mainly to the dominance of the public budget in the economies of oil producing countries, both as an indicator of the level of economic activity, or as a tool to increase the money supply.

Economists concur that methods of financing the deficit, either by increasing taxes or by debt do not affect the aggregate demand in the economy assuming the availability of certain conditions. However, the shortcomings of the markets in developing countries do not provide the conditions required to verify this hypothesis, which makes the financing of public budget deficit through the issuance of bonds rather than increasing taxes, is an effective method of increasing aggregate demand in the economy through increasing private consumption due to the wealth effect (Zayed, *et al*, 2009). The growth in the public debt in the domestic banking of the Libyan economy has led to parallel increases in the money supply, causing such factors as the emergence of the black market currency with high records in inflation rates.

It is understood that there is a high degree of interaction between the economic policies, and the lack of coordination among them at the macroeconomic level. For instance, the debt funding has led to an unexpected expansion in the money supply, which has contributed to the increasing inflationary pressures, with all the negative consequential effects on growth and employment, and therefore the standards of living in oil developing economy are characterized by the low of structures productivity. It seems that the inflationary financing of the budget impacted negatively on economic growth, which was reflected in distortions in domestic prices, a state of uncertainty in the economy, and the misallocation of the available resources. It also highlighted the lack of clarity about future policies, which adversely affects investment decisions in the public and private sectors, which requires a minimum level of clarity in terms of expectations regarding the orientation of economic policy, as an important determinant of investment.

Indications and Implications

In this research context a set of features can be introduced that are distinctive of the conditions of the public budget in the Libyan economy, these are a reflection of fiscal policy pursued, which can be summarised as follows;

The continued reliance on oil revenues in the structure of public revenues, which demonstrates the lack of development of economic activity in the direction that leads to diversification of its source of income, and thus the diversification of the source of public revenues. It also indicates to the decline in non-oil revenues, either as an absolute value or as a percentage of the GDP, due to the weakness of relative importance of the tax system, when measuring the tax burden by the proportion of non-oil revenues that depend mostly on direct and indirect taxes to the GDP, which together did not exceed 8.8% on average for the period of 2001-2005 (Central Bank of Libya, 2006). The weak ability of non-oil revenues to cover the expenses of the administrative budget, which not exceeded more than 70% of these expenses, is an additional indicator of weak non-oil resources in the structure of public revenues.

The upward trend of the administrative spending share in the structure of public expenditure compared with the share of public investment spending. This can be considered as an indicator of the deterioration in the developmental role of State, coupled with the weak return capacity of the private sector to compensate for reductions in gross fixed capital formation arising, especially in sectors such as agriculture and industry, where the proportion of their contribution to private investment in Gross fixed capital formation is still limited, and did not exceed 20.5% on average during the period 2001-2005.

Increased expenditure on wages and salaries including items related to public expenditure, where wages and salaries took the bulk share of spending, at roughly 66.2% of the total expenditure. The share of public expenses was about

21.7% in the year 2000, which means the state needs to retain a small amount of administrative expenditure for maintenance of the existing capital stock, in the form that supporting the economic development process and maintaining its gains.

Wages and salaries accounted for a high proportion of administrative expenditure in developing and developed countries alike, identifying the positive relationship between the size of salaries and wages among the items of public spending, and between the size of employment in state administration and the public sector. However, the high proportion implies a decrease in the relative importance of the private sector in economic activity, and lowers its ability to generate income and employment opportunities, which are supposed to increase when economic growth and per capita output are increased. Subsequently, the role of State would be decreased in providing employment opportunities, due to its low relative importance in economic activities.

Despite the fluctuations that have occurred in public spending, it was characterized by an upward trend even when public revenues were reduced because of falling oil revenue. However, the big bulk of reduction occurred in the public investment spending, which fell in absolute values and as a percentage of expenditure on gross domestic product (GDP). Thus, there is no increase which has been achieved in the efficiency of spending to make reparation for the decline in absolute values of public investment, which negatively affected the overall levels of investment in the economy, and therefore, the conditions of economic development in general.

The relative stability in public spending was reflected in the form of fluctuations in the budget deficit as an absolute value, or as a percentage of the GDP. This has resulted in other factors causing a status of uncertainty in the economy, reflected in its negative impact on economic growth, and the goal of diversifying the structure of output and employment in the economy. It has also led to

weakening the flexibility of fiscal policy due to additional factors, such as high wages and salaries within administrative expenditure items on one hand, or because the ratio of payments of domestic public debt is relatively high in the structure of administrative spending.

The data contained in Table 4-6 indicted a decline in the proportion of public expenditure in the GDP. This indeed demonstrates the existence of constrained fiscal policy in view of the requirements of the Libyan economy, and its development conditions, as it indicates the deterioration of the developmental role of state, particularly coupled with the decline in the share of public investment spending within the elements of expenditure on GDP to the low rate 8.2% in 2004. This in fact may not be consistent with the requirements of the State's leadership of the economic development process in an economy characterized by the limited financial, technical, and management capabilities of the private sector. However, the optimal level of public spending ranges between the ratio of 20% and 30% of spending to GDP in developed countries, as pointed out by Clemens & Veldhuis (2004). However, the requirements of development in developing countries requires a high proportion compared to developed countries, where the economic development can only be achieved by increase of returns on public spending, and increase its productivity, if taking into account the allocation of resources efficiently and effectively on different usages, and various aspects of expenditure, especially when using these resources optimally.

In this regard the possible suggestions that can be put forth to improve the performance of fiscal policy involve two important points; first is the necessity of increasing public spending both the administrative and investment, either by absolute values or as a percentage of the GDP. The second point is concerned with the high ratio of increase in public spending which has to be directed to investment spending, due to the current and future likely effects that can arise on

the overall process of economic development, and structural diversification, which Libya aimed to achieve, taking into consideration the following;

- Rationalization of public spending, especially administrative spending, which does not involve the reduction of public spending, but the need to improve the efficiency of spending in all respects that are directed to.
- Reordering of priorities with respect to the direction of public investment spending on various objects of expenditure that would ensure achievements of a high rate of return on expenditure, especially in the context of spending on human development and improving the life quality of the population through directing the bulk of spending to infrastructure projects both social and physical.
- Adjusting the conditions of fiscal policy effectively in order to protect the economy against shocks that can occur in the terms of trade, especially those associated with negative effects on public revenues. In other words it should formulate fiscal policy in the medium term framework considering possible positive or negative points in terms of oil prices or oil revenues. It should be able to absorb any fluctuations that arise as a result of changes in oil prices, and the quantities exported to abroad, and deactivate the consequent effects of these changes on the conditions of fiscal policy and its trends.
- It is likely to reduce the impact of changes in oil prices on government revenues, and therefore the expenditure by Sovereign Wealth Funds (SWFs), notably the Libyan investment institutions, which have, among of their objectives, maintaining economic stability. Hence, in periods of increasing oil prices it would help the state in managing public finance with more efficiency, while in the case of a decline oil prices the fund's resources could help to maintain the stability of the expenses.

- Improving tax administration and the adoption of new tax system that can develop other non-oil sources of funding rather than oil, and provide a higher degree of flexibility for fiscal policy in the revenues side. This perhaps requires an inclusive review and the continuing of the tax system's development in line with modern thought on taxes system. The State may need to reconsider reducing the income tax as initial stage in preparation for its abolition, and replacing it with the value added tax which is commonly applied on a large scale in many countries. This implies a reduction in taxes that are imposed on the source currently generating income (income taxes), and emphases on the taxes that means income usages (value added taxes). Therefore, this philosophy is based on changing the trends and management of fiscal policy to collect as much of the economic surplus from society in the public budget as possible, in order to redistribute this surplus by the community and re-engagement between consumptions and investments and savings, which leads to greater efficiency in resources allocation, and increase the likelihood of achieving a balanced and sustainable economic development

4.6 Conclusion

Like most of the developing countries, is a mono-economy. Crude oil is the main source of the country's foreign exchange. While oil revenues, since 1970, they made the country vulnerable to oil price fluctuations. We have seen in this chapter that during phase one of Libya economic development, the authorities tried to consolidate the massive inflow of oil revenues to build the infrastructure and raise the living standard of Libyan citizens. In the second phase, however, these plans were interrupted by the negative consequences of the massive decline in oil prices. In conclusion the aforementioned brings us back to the basic idea reflected in the fact that the ultimate impact of the oil sector on the desired economic development and structural diversification can only be achieved through what is being allocated and spent effectively from oil revenues on other economic sectors. This implies that any decline in the level and rate of growth of oil revenues would negatively affect the financial resources available for the development of other sectors, which in turn leads to hampering any development efforts that can be made to diversify the structure of income, output, and employment in the Libyan economy. Therefore, the development experience in Libya's economy has demonstrated that expenditure on development is made primarily through what is available from oil revenues, where an abundance of finance arising from the oil boom in the seventies has facilitated the adoption of ambitious plans for development, and led to significant structural transformation in the economy. Whereas financial difficulties as a result of the reduction in quantities and prices of crude oil exported abroad in the eighties has led to the abandonment of economic planning for development in accordance with long-term strategic visions. This outcome indicates the importance and the necessity diversifying the structure of output and employment, of diversify sources of income and output, and of getting rid of the dominance of the oil sector.

Chapter 5: Diversification Trends in the Structure of Libyan Economy

5.1 Introduction

The Libyan economy has witnessed many transformations, where the most important was the discovery of oil. Prior to the 1960s, the oil sector has taken a prominent place in the economy, and has led to vital changes in the economy and social development and growth in general. It has also played a key role in the economy of the State. Oil is a strategic commodity, it is necessary, important, and influential in all aspects of economic activity, and continues to play the leading role of dominating the economy as a whole, as a major source of national income, public budget, and to help the financing of economic projects in order to increase added value. However, an importance role is supposed to be played by other economic sectors in diversifying and expanding the base of economic activity, and reducing the dependence on oil to protect the local economy from the unexpected and severe risks of external factors that are relevant to global demand and supply of oil market. Thus, this area has been targeted for the diversification of income sources through economic and social transformation plans, and the development of consecutive budgets. Thus, this chapter aims to analyse what progress has been towards economic diversification. This done by measuring its trends achieved so far in the Libyan economy.

The chapter is divided into three main sections

- A. This section addresses economic diversification, its objectives and its importance to sources of income and output, its contribution to avoid the negative effects that may be caused by the oil sector, and its exposure to undesirable fluctuations. It also deals with the indicators that were used in measuring economic diversification.
- B. Deals with analysis of developments that occurred in both the level and growth rate of gross the domestic product (GDP), and additionally addresses the measurement of economic diversification through the application of some relevant indicators.
- C. This section focuses on evaluating and analysing the obstacles that have prevented the achievement of economic diversification. This is possibly associated with the characteristics of the Libyan economy and economic policies pursued, as well as the features of management of human resources development. It also includes the requirements for economic diversification through the mechanisms proposed.

It simply means to expand economic activities to increase economic opportunities. In other terms, economic diversification might also refer to the fact that a country's economic structure would not entirely depend on one economic sector for its economic growth; rather it will diversify its economic activities to meet the market competitiveness. By spreading the country's income around different sectors, risks are also lessened. The expansion of further economic activity is expected to lead towards job creation and also to new avenues for investment and profits.

The process of diversifying economic activity as a best strategy option for economic development in developing countries, gained its importance from the fact that these countries should have to create an effective modern economy outside of primary production, in order to maintain a relatively high level of

income. Developing countries such as the case of Libya, where in order to modernise their economy requires a high rate of investment in other sectors for the long run, and also continuing to develop human resources, education, and health services. Indeed, this developmental strategy would lead to a sustainable economic development, and rapid rates of growth, through occurrences of structural changes in the economies of these countries. Therefore, the real (sustainable) development means that all sectors (production, and services), and all regions of the country, are becoming more developed and advanced, though it is not necessary for these to be at similar rates. However, in the meantime development in fact, means that the production function is changing constantly, and that capital accumulates continuously in all economic sectors, and across all regions in Libya. This is what justifies paying more attention to spread investment in different economic sectors, along with the primary production sector.

In this context of the above mentioned, the most important themes of this chapter can be outlined as follows:

- The nature of economic diversification
- The main objectives of economic diversification
- Indicators measuring the level of economic diversification.

5.2 Economic Diversification in Regional Context

This section deals with regional context by considering both practice and the theoretical model. It is recognized that specialization in the production and exporting of primary commodities or a few goods, as in the case of developing countries including oil economies, makes their economies and growth rates subject to fluctuations of oil prices and the levels of global demand for these goods in the markets of industrialized countries. Owing to the interaction between the process of economic development and economic diversification, developing countries have realized the importance of creating economic diversification in their productive structures, structures of exports, and income, in order to reduce the negative effects of those fluctuations on economic development projects. This is also because economic diversification would achieve a number of objectives including the following: -

- 1- Making the State more capable to cope with global changes in various economic sectors.
- 2- Enabling the State to choose and develop sectors based on their economic returns (cost, revenue, and profit).
- 3- Encouraging the country to achieve economic stability which contributes to economic growth in different regions of the country.
- 4- Contributing effectively to provide employment opportunities in the country as a whole and not just in specific regions.
- 5- To diversify sources of income and production and to diversify sources of foreign currencies.

Given the importance of the trend towards economic diversification, in this respect, a number of economic studies are relatively new, e.g., Basher, (2010), has confirmed that some countries were focussing their policies on this side. For instance, the common pattern of an economic diversification strategy in the GCC countries tends towards an expansion of industries that have strong ties to

the oil sector, such as petrochemicals, fertilizers, plastics, rubber and metal, alongside with achieving significant progress in developing of financial and service sectors. There was significant progress achieved in horizontal economic diversification, where the contribution of service sectors, construction, and manufacturing industries has increased in total value added during the period 1990-2010. It also achieved a great amount of diversification in exports, according to the Hirschman index. It has also achieved a vertically diversified economically, where statistics show an expansion in the export of textiles and garments rather than in spinning and weaving, and alongside an expansion in the export of chemicals, rubber and plastic products instead of exporting oil.

As mentioned earlier, the experience of the UAE for instance has concentrated on inducing an increase in contributions from the productive sectors (agricultural, construction, electricity and mining). Conversely, this has contributed to a decrease in service sectors (tourism, financial) and governmental institutions in the GDP, without any noteworthy increases in the contributions from the manufacturing industry during the period of the mid-1990s until 2010 (Savard, *et al*, 2010).

Further economic studies conducted by Ben-Hmmouda (2006) stated that the experience of the Maghreb regions (Tunisia, Algeria, and Morocco), in the direction of economic diversification, is regarded as one of the most successful Arab experiences in this context. An important finding underlined from theoretical analysis shows that diversification pattern for both, domestic production and export, diversification alter throughout the stages of development. According to this stream of work economies exhibit strong product concentration until they reach a threshold level of income from which on diversification increases until specialization (and concentration) occurs at very high income levels Imbs and Wacziarg (2003). For Maghreb regions particularly Tunisia it would therefore expect to observe an increasing trend in diversification.

Over the 15th years the economies of these countries have been growing relatively fast. GDP growth in most countries reached more than 4% on average, and in some peaked at rates of up to 7% (UNECA, 2007). As they continue along the path of economic development, it is imperative that they find ways to diversify their economies, namely by strengthening non-traditional sectors, and expanding their range of products and exports (OECD, 2011). A number of key economic driver have been identified by UNECA economic report on Africa (2007), which enabled diversification possible. Their dynamic growth performance, investment, and macroeconomic stability were helped contribute to develop a relatively well-diversified economic base. Overall, they have achieved a relatively high degree of macroeconomic stability. The main shared characteristic of their economies is that they can be categorized as resource-poor and labour-abundant, which means that in contrast to their oil-rich neighbours, they are relatively less vulnerable to macro-economic fluctuations caused by external shocks. However, these countries did witness substantial improvement in their macroeconomic indicators. Owing to prudent macroeconomics these countries have been enjoying a relatively stable macroeconomic environment as seen in their relatively high level of GDP growth with lesser volatility.

Evidently, the efforts and attention paid to the structural reforms which were started in 1980s and extended in the past couple of years showed a positive impact on growth stability. Since then Tunisia for example has undertaken macro-economic policies and structural reforms designed to transform the country into a market-driven economy with a liberalised trade regime. These reforms have borne fruit: GDP averaged at 5% between 1999 and 2009 (OECD, 2011). In spite of its relatively limited amount of natural resources, Tunisia has relied largely on a good business climate, infrastructure, geo-strategic location and highly skilled human resources to drive economic diversification. This has helped to make the economy more resilient to internal and external shocks, such as the surge in energy prices in 2008. In addition, services and manufacturing

have recently been significantly enhanced to further increase Tunisia's economic diversification. For example, the establishment of more than 120 industrial zones and 10 techno-parks has helped to attract new Foreign Direct Investment (FDI) (OECD, 2011).

Moreover Tunisia's tourism sector has seen as an important component of the country's economic development, because of its spill-over effects in developing infrastructure (roads and airports especially), construction of hotels and other facilities, job creation and image-building for the country as a whole. These are all strengths that support of Tunisia's well-diversified economy. Its financial sector, for example, ensures easy access to credit and this in turn fuels the growth of business and enterprise, key engines of economic growth and innovation. These countries were able to diversify a substantial amount of their exports, and their structure economic, by adopting ambitious programs to liberalize their trade, and make accurate financial and economic reforms, notably to have pursued policies of flexible exchange rates, which have made a positive impact in achieving economic diversification in their exports, according to the Hirschman Index.

Secondary data will be used to assess whether the shares between oil revenue and non-oil is changing over the years, and considering the essence of economic diversification and what it entails for the Libyan economy by analysing the real sector issues of non-oil. From the literature review survey (e.g., Aissaoui, 2009; Wiig, and Klostad, 2011)) a few researchers point out that analyses of diverse aspects of economic diversification have used a number of indicators and measured in order to assess the progress of the economic diversification efforts. Accordingly, in order to establish the present level of diversification and development in the Libyan economy the researcher used a number of indices; the aim was to identify and analyse the degree of diversification that has been achieved so far in the Libyan economy. In particular it evaluate whether or not

the government has reduced its large dependency on oil sector. This was done by analysing the results emerging from the respective GDP incomes elasticity.

According to some researchers (Collier & Goderis, 2007; Coury and Dave, 2009) resource-dependant economies which heavily rely upon a single source of income, are extremely vulnerable to the instability and volatility of global oil market. Therefore, “dependence” would be a better antonym for diversification, consequently the best and easiest way to quantify metric would consist on a combination of the share of petroleum in export earnings (percentage of export oil and gas earning by all export) and fiscal revenues (percentage of oil earning by all revenues), in addition to the value-added of oil sector for the total GDP.

- Impact of export on diversification: The percentage contribution of non-oil export to total export earnings, since raising non-oil exports are an indication of diversification.
- Share of oil and non-oil revenues in the total public finance: the percentage contribution of oil revenues as a proportion of total government revenues, which indicates whether or not dependence on oil revenues is being reduced;
- The percentage contribution of oil versus non-oil sectors to GDP, which provides an indication of the structural change in economy.

Those involved in an economy would agree that diversification is the process that leads to a growing range of economic outputs being produced. They would further add diversification of export markets and that of fiscal revenue sources. In this sense diversification can be relatively easily measured. The country is plotted using the share of its petroleum industry in a) GDP, b) exports and c) governments' fiscal receipts. To appraise changes over time, the researcher used data that is produced consistently and accurately. This popular data source is economic output data, or Gross Domestic Product (GDP) as it is commonly called. These data sources are applicable because stable economic growth is a

desirable objective and indicator of successful diversification efforts. Therefore, the researcher used economic output data to analysis whether GDP was distributed across wide range of economic sectors or a few. Thus, all types of diversification are important building blocks of stable, sustainable economic growth. “Examine changes in GDP composition can provide an indication of trends and suggest whether diversification is occurring” (Western Centre for Economic Research, 2010: 5).

Thus, the measured level of economic diversification is considered as one of the criteria that can be used to classify the nature of countries to developing and developed countries, in addition to the other economic and social standards. These criteria are diverse to measure the level of economic diversification in light of the analysis of the problems that beset the economies of developing countries, and in the context of determining the level of evolution reached by economic development processes. Hence, this research estimates the possibility of using the appropriate measure amongst the following criteria and in a form that serves the objectives of the research. It is also presents a brief discussion on some of the most commonly used indices of diversification, as background to the evaluation of each index.

These indicators can be grouped into a number of categories. For instance, economic diversification can be measured in different ways. The easiest way is to use the share of manufacturing in the GDP. It is a composite index, based on the contribution of the manufacturing sector to the composition of GDP, and the proportion of the workforce in the manufacturing sector to total employment in the economy as a whole, the consumption per capita of electricity trade, and finally, an indicator of the concentration of exports in the trade balance according to the UNCTAD (United Nations Conference on Trade and Development) Index.

The Herfindahl-Hirschman Index HHI: Concentration ratio at the 1-digit level (The Herfindahl- Hirschman coefficient for sectoral concentration).An indicator can be used to measure the extent of diversification in the gross domestic product (GDP) for different periods of time, and then make a comparison to determine the extent of diversification that has been achieved in the economy with economic development processes. This measure takes the following form:

Where:

HHI = Index of Herfindahl-Hirschman³, which takes the index value *zero* when there is entire diversification, and takes the value *one* when the degree of diversification is equal to zero, which indicates a situation where the production is concentrated in one sector of economic activities.

X_i = The monetary value of a particular activity, which oil.

X = The total monetary value of gross domestic product (GDP).

N = Number of economic activities.

One of the preeminent ways to measure the level of diversification is by using concentration ratios (Ben-Hammouda, *et al*, 2006). The type estimate used will be the type found in the literature such as by Imbs and Wacziarg (2003), UNIDO (2009), and Hausmann, *et al*, (2007). Imbs and Wacziarg (2003) capture concentration (the inverse of diversification) through the use of a Herfindahl-

³ The Herfindahl-Hirschman index measures the extent to which a country's production or trade is diversified or specialized. The index is bounded by (0, 1) where a high value of the index indicates that the country is specialized in the production of a few goods. The Herfindahl Hirschman index is simply the sum of the squares of the market shares for each industry and is always less than one.

Hirschman index (HHI), coefficients of variation of sector shares. Lederman and Maloney (2007) also make use of HHI as well as of the share of natural resources in total exports.

This scale measures the degree of concentration, and has been used by UNCTAD to determine the amount of concentration on the exports side. For example, if we assume that economic diversification refers to the process by which values-added are distributed across sectors in order to avoid the dominance of any given one (e.g., oil), then it is best understood and measured through concentration. In this case, a diversification quotient may be computed as the inverse of Herfindahl-Hirschman index (a concentration ratio expressed by the sum of the squares of the percent value-added share of GDP (Aissaoui, 2009).

Therefore, UNCTAD has developed the measurement of the Export Concentration Index (ECI), which is the normalised value of Herfindahl-Hirschman Index, ranging from *one* (low level of economic diversification) to *zero* (high level of diversification). This evaluation determines a 'concentration ratio' and a 'diversification quotient'. Concentration ratio measures a nation's concentration in a given sector, while the diversification quotient is the inverse of the concentration ratio, providing an innovative metric that policymakers can use to gauge economic diversification. The lower the concentration ratio and the higher the diversification quotient, the more diversified a nation's economy (Shediac, *et al*, 2008).

Index of the comparative advantages achieved (RCA): Considering the structure of foreign trade, especially on the export side, "Revealed Comparative Advantage" represents a mirror of the structure of production in the economy, thus it is possible to use this measure to identify the degree of concentration in the foreign trade sector, and determine the existence of any comparative advantage for exports, this measure take the form as follows:

Where:

RCA = index of the comparative advantages achieved.

X_i = value of exports to a particular commodity or a homogeneous group of goods and services.

Mi = the value of imports for the same product or group of goods and services.

Where the value of this index is equal to *one*, when the value of imports is equal to *zero*, this means there is entire rate and relatively high for the benefit of exports, while the value of this indicator being equal to -1 when the value of exports is *zero*, shows an apparent lack of any advantages for exports whatsoever. Since this measure is only applicable for the foreign trade sector, thus it is more likely to use the measure of (Herfindahl-Hirschman), which can be appropriately applied to explore the extent of the diversification trend in the structure of the GDP, though it can use both scales when applied to the foreign trade sector, and gain benefits from the results that can be obtained, in determining the extent of diversification in the structure of the national economy.

Index Coefficient of Variation of Relative Sectoral Productivity: This indicator is useful in determining the extent of variation in the relative sectoral productivity, among different economic sectors, which helps to identify the level of economic diversification and the level of efficiency in resources mobilization and investments in the required manner. An indication is from the broad gap between the proportion of employment in primary production and its contribution to the formation of the GDP on the one hand, and between the proportion of employment in other sectors and the proportion of their contribution to GDP on the other hand. This indicates the extent or existence of a structural imbalance or structural diversification as a result of the extent of

variation in the relative sectoral productivity. This index can be calculated as follows:-

Relative sectoral productivity

$$= \frac{\text{the contribution of a sector in the structure of production in a given year "t"} }{\text{the contribution of a sector in the structure of employment in a given year "t"}}$$

Coefficient of variation of relative sectoral productivity = $\frac{\text{Standard deviation in year "t"} }{\text{Arithmetic average in year "t"}}$

The closer the value of the index is to **zero**, the more indication of a high efficiency of investment and high efficiency in the allocation of resources among different economic sectors there is, indicating a high degree of balance in the economic structure.

Gini index /Gini Coefficient: A standard measurement of inequality in income distribution is calculated by the Gini index, which is an indicator of how evenly income is distributed throughout a population. A Gini index of 100 suggests a highly uneven spread with all of the income accruing to one individual and an index of 0 indicates that all individuals have exactly the same income. This index has been adapted to be used in many studies to show the statistical phenomenon of commodity and geographical concentration of foreign trade in developing countries, and can be formulated as follows:

Where:

G = the coefficient of commodity concentration.

m = it means, value of imports or exports of the commodity

M = refer to the total value of imports or exports of goods.

n = standard International Classification of foreign trade at 3 digit, and it is equal to 150.

The minimum value of the Gini coefficient is determined at ($\sqrt{\frac{100}{n}}$), and this

value lies between *zero* and *one*, if this value, multiplied by 100, lies between *zero* and 100. If the value of the Gini coefficient is equal to one hundred, this indicates the presence of complete concentration in the total exports and imports of goods depending on the circumstances. Therefore, this indicator can be adapted to show a lack of diversification in the structure of national economy (economic concentration), where the category of '*m*' in the equation of the Gini coefficient is an indicator of the sector's contribution to the GDP of the economy, while (*M*) means the value of the GDP in this economy.

Sectoral Contribution to GDP: The development reflects the amount of change in the structure of production and national income sources, whether the GDP was distributed across a wide range of sectors or one single sector. It is also considered as one of the most important indicators for measuring economic diversification. This implies that a higher contribution from other sectors (for instance, non-oil sectors), compared to the contribution of the primary production sector (oil sector), indicates an economy moving towards economic diversification.

Contribution of primary production sector's in the overall public revenues: It represents the economy's ability to generate national savings, with an adequate amount in order to funding investment. In addition, one of the key objectives of economic diversification in oil-producing countries is to reduce dependence on oil revenues to finance the expenses of public budget.

Contribution of non-oil exports in the total national exports: It demonstrates the ability of the economy to competitive, and finance of imports. This is an indicator the economy shifts towards economic diversification, taking into account that the short-term changes in this indicator may be misleading, due to fluctuations in oil prices and its derivatives.

Contribution of public and private sector in total value added, and gross fixed capital accumulation: This indicator has significant indication, because economic diversification implies reducing the role of the public sector and promotes the role of the private sector in economic activities.

Interim Conclusion

Ultimately, in this context, the use of these indicators or at least one of them depends mainly on the nature of the study, as it also depends on the evaluation of the researcher in determining which of these metrics can achieve the objectives and purposes of the study. Thus, each of these criteria or standards reflects merely one aspect of the matter under study. However, it doesn't fully accomplish, which requires the need to use most of these standards to measure and analyse the diversification level that has been achieved in the Libyan economy, and the extent of efficiency in the allocation and utilization of the available resources, in a manner that achieves the goal of study on the one hand, and avoids any possible failure when applying any of these standards on the other hand.

5.3 Estimates the Diversification level in the Structure of Libyan Economy

A measurement of the degree of diversification in the structure of the Libyan economy requires the study and analysis of developments that have occurred in the level and rate of growth and the structure of the GDP. It would also need to identify that factors that have contributed to these developments, because it would provide a clear vision for analysis, which clarifies the extent of the efforts which have been made, and the obstacles that have emerged to prevent the achievement of structural diversification. As well as, its explains the ineffective to depend on only quantitative measures, without a qualitative analysis of structural developments in the Libyan economy, due to the structural diversification a strategic objective has been emphasized in the various economic development plans experienced by Libya economy, especially in the past three decades In order to analyse the trends of economic growth, it would be desirable to study and analyse the structural transformations that accompany this growth, since such transformation would demonstrate the sources of economic growth. It also indicates an increase in the productive capacity or the productivity of production factors in the economy, within a context of regular changes aimed at increasing the contribution of certain economic sectors in the formation of the GDP, and reducing the contribution of other economic sectors. It has been acknowledged when we study the structure of the GDP in oil based economies, that it is desirable to divide this output into oil and non-oil GDP, in order to determine the extent contribution of each one in the composition to the GDP.

According to preliminary reading data contained in Table 5-1, we can see that there is a gradual reduction in the contribution of oil in the component of the GDP of the Libyan economy, which implies that a gradual increase occurred in the capability of non-oil economic activities to generate income in the national economy. Hence, such data may suggest that there was an occurrence of structural change, which has led to reduced dependence on the oil sector, which in turn led to an increase the degree of diversification in the structure of the economy. However, further analysis on the nature interrelationship between the gross domestic product of oil and non-oil would lead to the conclusion that discontinue of oil production or reduced its level and rate of growth for any cause, does not mean in any case that there is a stable level of the growth rate of non-oil GDP, due to direct and indirect contributions of oil sector in achieving the growth of GDP and non-oil GDP. In this context, the extent contribution of oil's in the process of economic development can be understood as one of production inputs. In addition, its significant role in the savings of oil revenue to invest in projects that lead to growth in other sectors can be realised (Ali, 2011).

Moreover, these increases in oil revenues would lead to increases in per capita incomes which in turn would lead to boosting the level of demand for goods and services that create incentives to invest, and increase the absorptive capacity of the economy, eventually resulting in rises in the rates of growth in non-oil economic sectors. It has been noted in this regard that the non-oil GDP did not exceed a percentage level of 29% of the GDP (at constant prices) in 1988, and did not exceed 28% in 2002 see Table 5-1. This implies there were no significant structural changes, because it coincided with a sharp decline in oil prices, especially in the eighties, and the negative growth rates recorded by the gross domestic product of oil led to the slow rates of growth in gross domestic product by -14.7% in 1987, and the -2.6% rate in 1999 (Shamyia, 2007). Needless to say that, Libyan economy has a fundamental feature, which enhanced most of its economic developments in the past. This characteristic was

reflected in the dominance of the oil sector on the overall economic activity, either directly through the contributions of the oil sector in the formation of GDP, or indirectly through the surpluses of finance available from oil sector of that can be used in financing economic development in non-oil activities, with the aim of reducing dependence on oil, and increasing the degree of diversification in the structure of GDP in the national economy.

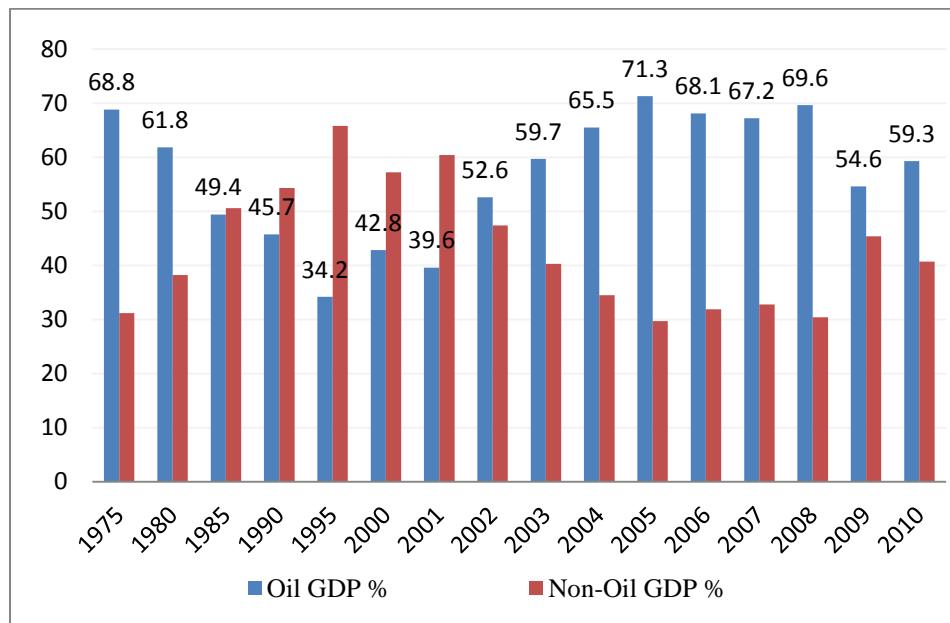
Table 5-1: The Structure of GDP in Libyan Economy (1975-2010)

(At constant prices for year 1980, 1997, 2005)

Years	Oil GDP %	Non-Oil GDP %
1975	68.8	31.2
1980	61.8	38.2
1985	49.4	50.6
1990	45.7	54.3
1995	34.2	65.8
2000	42.8	57.2
2001	39.6	60.4
2002	52.6	47.4
2003	59.7	40.3
2004	65.5	34.5
2005	71.3	29.7
2006	68.1	31.9
2007	67.2	32.8
2008	69.6	30.4
2009	54.6	45.4
2010	59.3	40.7

Sources: National Accounts (1986-1999),
Central Bank of Libya the Economic Bulletin, Vol 46, first Quarter 2006; annual report Vol No 52, 2010.

Figure 5-1: The Structure of GDP (1975-2010)



A careful reading of the real growth rates in the non-oil GDP Table 5.1 shows that has exposed to sharp fluctuations during the period 1986-2009. This can only be attributed to the fluctuations that have occurred in the rate of growth of oil gross domestic product. The oil sector represents the main source of financing the growth of non-oil activities, which can be seen as an indication of an unsuccessful attempt in compensating for the shortfall in the amount of investments. This due to the pressure of revenue through increasing the efficiency of investment in various sectors, in the form which leads to an increased return on investment, and achieving a stable rate of growth in the non-oil GDP, and in the manner that reduces dependence on oil and raises the level of diversification in the structure of the national economy.

Finally, it is possible to present a set of justifications regarding the sources of growth in gross domestic product in the Libyan economy during the whole period of study as the following:

- 1) The growth rates in the GDP and the growth rates in the gross non-oil profit indicate that there is a strong correlation between the proceeds of oil exports and the main economic indicators at the macro level. Such an association would lead to fluctuations in growth rates of the gross domestic product and non-oil GDP alike, as a result of fluctuations in the export earnings of oil. Since oil is a primary commodity, its prices and quantities of demand are subject to large fluctuations due to the nature of their markets on the one hand, and because of circumstances and developments that occur in the global economy on the other. Hence, the dramatic reductions in the proceeds of oil exports in the late nineties have led to a number of effects on key macroeconomic variables, mainly a decline in growth rates, and the emergence of a public budget deficit and trade balance, and the delay of several development projects. More so, the abandonment of economic planning for development, as well as making the State resort to the local public debt banking and its volatility, both as an absolute value or as a percentage of the GDP, which all in turn result in negative effects on economic stability and on the overall development process.
- 2) The high growth rates of 56% achieved in 2009 for instance (see table 5.1) did not result from the nature growth or structural changes to the capacity of the economy for production and productivity, but rather it was as a result of the oil droop that occurred in that period (OPEC cuts production), which is reflected in the form of substantial increases of oil proceeds. Hence, the proceeds of oil exports led to an increase in the import capacity of the economy, and reflected positively on the overall macro-economic indicators, such as the level of per capita income, which increased dramatically in that period (Zayed, *et al*, 2009). This in fact underlines that there is a tied relationship between the growth rates in the oil sector or in the proceeds of oil exports and the growth rates in GDP and in non-oil GDP alike. There is no denying fact that, in terms of economic growth (as reflected in GDP and per capita income), the rapid accumulation of oil revenues enabled the country to achieve a higher rate growth in terms of

GDP and per capita income for the past thirty years. Almost all the funding sources for the non-oil sector come from oil revenue. Imply an inextricable dependence of the non-oil on the oil sector within Libyan economy. It is important to note that the Libyan economy is dominated by oil. For this reason Libya is classified by international financial organisations like IMF, and the World Bank as one of the oil-producing countries. Oil is still the main source of foreign currency as the oil revenues constitute 95.0% of the hard currency (Shamyia, 2007:7). Moreover, the oil sector contributed 52.5% of GNP in 2008 (the manufacturing, agricultural and services sectors the contributions of which were 5.3%, 3.3% and 38.9% respectively (Central Bank of Libya, 2010:43). The strong relationship between the Libyan economy and the oil sector is highlighted by the African Development Bank, which argues that a 10.0% change in oil prices changes national income by 3.0% (African Development Bank, 2009).

The growth in non-oil sectors has varied less noticeably but nonetheless has fluctuated and has been influenced by changes in oil prices. This suggests possible “contagion effects” that is, the tendency of failure in one economic or financial arena to spillover into other unrelated or tangentially related arenas (Shediac, et al, 2008). There are a number of factors contributed to this spillover, including government sensitivity to non-oil spending when oil prices are low; a dependence in the non-oil internal economy on oil output and prices; and limited non-oil exports. Those factors also suggest inadequate and relatively ineffective economic diversification. In this context, a number of studies such as Sefton & Weale (1996) pointed out to the need to correct the national income in oil-producing countries by deducting the value of exhaustible resources like oil, in order to attain an effective yield for factors of domestic production when measuring national income, both in terms of level or in terms of growth rate, where other studies have shown that such an amendment may reduce the GDP in some of these countries to around 25% of its current value.

- 3) The heavy reliance of the GDP growth on the oil sector has led to delayed development efforts, and the lack of a developmental perspective for the long and medium term, due to the difficulties encountered by policy makers and planners because of fluctuations in oil revenues, and uncertainty about its future value. For instance, the decline in oil revenues in the late nineties had led to the inability of the government to implement only 57% of the projects in the five-year plan 2001-2005, while the rate of implementation in the three-year plan (1998-2000) was reduced to the level of only 24% of the allocations.
- 4) This strong relationship between the GDP and the oil sector has led to a delay in the development efforts in Libya and not reaching out, which in turn led to a reduction in public investment spending, and the lack of a development perspective. As this lowers the production capacities in many of the productive sectors and services, estimated at 60% of the overall industrial potential in 2009, the performance of many infrastructure projects deteriorated. In view of the awareness that reliance on the export of raw material commodities would expose the domestic economy and its development conditions to external factors, due to the demand for primary commodities in the international market rising at a rate less than the demand for manufactured goods with income growth. Because of this, international terms of trade are moving in reverse of the benefit to countries exporting primary commodities. As discussed earlier, dependence on one or limited number of commodity of export, developing countries may result in less broad-based and sustainable growth due to mainly the deterioration of terms of trade often occurred in the price or demand of these commodity. This cannot be attributed to projected plans, or as an objective of economic policies pursued, or as a result of structural developments associated with the development process, but rather, it is a reflection of the developments that occur in the gross domestic product of oil (oil GDP), and that consequences might arise in the growth rates of the gross domestic product accordingly.

The rapid growth in gross domestic product, which was being achieved mainly as result of the growth in oil export earnings, would have only a slight impact on the development process, and make the structural changes desired in the economic development, because this impact depends largely on the nature of the export sector, and its backward and forward linkage with other sectors. Further, it depends on the degree of the industrialization of goods exported abroad, which the justification indicative of the weak backward and forward linkages to the oil sector, nevertheless its influence would be achieved mainly through what is being allocated from the oil revenues to finance growth in other sectors (Shamyia, 2007).

Therefore, if the rate of growth in oil export earnings depends to a large extent on the circumstances of the global economy and its growth rates, thus the rate of growth in the GDP in the Libyan economy reflects to a large extent the conditions, requirements, and growth rates in gross domestic product of oil as one of its components on one hand, and on the other hand as a source of funding of economic growth in other sectors. This is demonstrated partly by the success of development efforts, but it is mainly associated with a decline in oil prices, and thus an impact on GDP growth as one of its main components. This seems to be the main reason that contributed to a further decline in economic growth rates and structural of diversification, especially with the State's abandonment of economic planning of development, owing to uncertainty about the size of oil revenues that may be available for the financing of development in various economic sectors.

On the whole, this implies that the volatility of oil revenues and the overreliance of GDP growth, has led to a lack of continuous and sustainable growth. Structural transformation has occurred through two main channels; the first is shrinking the available resources for purposes of economic development, the second channel is the consequent decline of oil revenues reflected in the policies pursued to codify the public debt as a major source of financing the public

budget, increasing the money supply, and increasing the levels of inflation in light of stagnation in the structures of domestic production. This has led to more pressure on the demand for imports and foreign exchange. Moreover, the control policy on exchange rates has led to the emergence of a black market currency and the devaluation of domestic currency on the black market. All of the above mentioned has been reflected in the instability of the national economy, and has negatively affected the economic growth rates, and what is associated with its structural changes. Therefore, in order to determine the degree of economic diversification that has been achieved in the structure of the Libyan economy, a few of indices has been applied:

5.3.1 The Herfindahl – Hirschman Scale, (HHI)

This Scale is used to measure the degree of concentration in the structure of output, and it the most commonly used measure in recent studies. In the present analysis diversification has been captured through Hirschman's commodity concentration index (CCI). The index is defined in such a way that the lower is the value of this index, the greater diversification is as a percentage to GDP. After econometrics, an assessment is applied to the available data on the structure of real GDP in the Libyan economy. It is evident from coefficient values obtained through the figures in Table 5-2, that a degree of diversification in the structure of output was achieved over the past three decades, with coefficient values gradually decreasing, from 0.885 in 1975 to 0.214 in 2010.

This reflects at the first glance an increase in the capability of the non-oil sectors to generate output and increase employment, and it demonstrates the shift of resources towards investment in non-oil activities. Further analysis for the detailed data has been made on the developments that have occurred in the components of the GDP indicating a continued proportion of non-oil sectors at low levels in the composition of the GDP. This finding is contrasts with what is assumed by economic theory in this regard; structural transformations in the

economy can only be achieved through the increase of industrial sector contribution in the composition of output, and increasing its ability to achieve growth through increasing employment opportunities (Aissaoui, 2009). However, the data indicate that the percentage contribution of the industrial sector in the composition of the GDP did not exceed 5.5% in 2000, while the rate of employment engaged in the industrial sector was only 11.8% according to the available data for 1999 (Shamyia, 2007). Moreover, the variation rates of growth among agriculture, industry, and service sectors, another indication on the ineffectiveness to rely on Herfindahl-Hirschman coefficient as the quantitative standard to verify the extent of the achievements of economic diversification effort in the structure of output in the Libyan economy. Therefore, it can be seen only as an imperfect proxy for the level of diversification in any given country.

As noted previously, the data indicate that the manufacturing and service sectors which are producing goods that are not viable for international exchange, have achieved a high growth rate compared to the commodity sectors producing tradable goods. This can be considered as an indication of a worsening gap between the domestic supply of goods and demand on them, which may cause more effects on the structure of domestic prices, demand for foreign exchange, value of local currency, and the conditions of balance of payments, in particular trade balance.

Table 5-2: Scale - Hirschman about Diversifying the Structure of Output in the Libyan Economy, selected years (1975-2010)

At constant prices (1980)

Years	1975	1980	1985	1990	1995	2000	2005	2010
Value of Index	0.885	0.808	0.650	0.393	0.369	0.282	0.232	0.214

Notes:

- Figures (1975-1985) at constant prices for the year 1980
- Figures of (1990-2010) at constant prices for the year 2005.

Figure 5-2: Diversification Trends of Libyan Economy

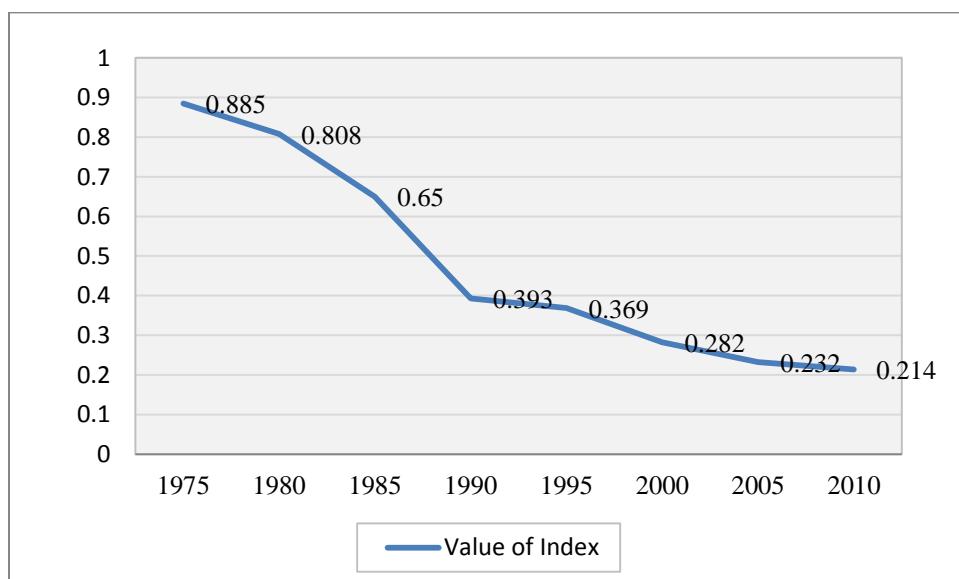


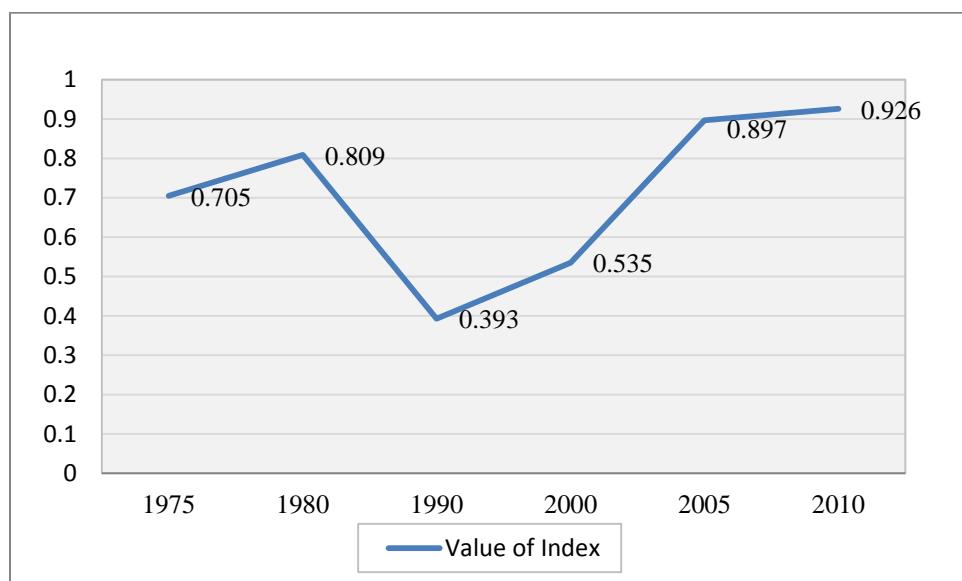
Table 5-3: Coefficient (HHI) Values in the course of Oil Prices Trends
(Selected years 1975-2010)

(At current prices)

Years	1975	1980	1990	2000	2005	2010
Value of Index	0.705	0.809	0.393	0.535	0.897	0.926

A further estimation was made by re-calculating Hirschman index at current price in order demonstrate the role of oil price fluctuations likely to play in determining the values of coefficient. If the price of oil changes the coefficient values will be affected. During oil price fluctuations certain periods are likely to distort results. It can be seen from the table 5.3 that the coefficient values took an upward trend with rising oil prices and increased revenues from crude oil. Figure 5.3 show the coefficient value rose from 0.705 to 0.809 between 1975 and 1980, which coincided with the first and second oil boom in 1979. However, the coefficient value shows a downward trend and which coincided with the successive reductions in the proceeds of oil exports during the eighties until it reached its lowest level in 1990 see Table 5.3. In addition, the values of the scale have increased significantly between 2000 and 2005 as a result of the substantial rise in oil prices following the Iraq war which took place in 2003. This led to an increase to the contribution of oil and natural gas in the composition of the GDP from 42.8% in 2000 to about 71.3% in 2005 see Table 5-1, when measuring the structure of output at current prices (CBL, 2006).

Figure 5-3: Hirschman Index during the Oil Prices Changes



It can be recognized that degree of concentration ratio is relatively high in the structure of output and income in the Libyan economy. It can also be identified the economy has a continued reliance on a mono source of income, and has not achieved the structural diversification desired. Therefore, isolating the impact of oil price fluctuations would lead to an impact on the variables related to income, and expenditure, as well as the structure of demand, the structure of domestic prices, and the structure of foreign trade. When we compared the real values it was obvious that, the degree of diversification increases with slowing or declining growth rates in the total gross domestic product, and gross domestic product of the oil sector, which is inconsistent with the logic of economic theory that economic diversification is not only a meaningful indicator of economic growth, but also acts as its support and main driver. This leads to a conclusion that progress towards diversifying sources of income and output in the Libyan economy is unattainable.

Unfortunately, the gains registered were fragile as the improvement in the diversification index lasted only up until 1980, where the diversification gains that had already been made were eroded. Since then, the diversification experience of the Libyan economy has become more concentrated. Increasing oil revenues led Libya to pursue a more concentrated approach, instead of using the revenues to diversify its economy. Taking into account the upward trend of the diversification index from 1990 to 2005, this trend needs to be reversed for Libya to make its way out of the challenges it currently faces. Moreover, the Libya's diversification experience has been volatile; in spite of where there were some improvements in diversification, but due to the backdrop of volatility, Libya's economy has been unable to register any significant diversification degree likely to be achieving sustainable growth. However, the findings of studies e.g. Sachs & Warner, (2001) and Auty, (2001) cited in the literature review chapter may not be sufficient because they only explain that a commodity dependent country is one with more than 50% of their commodity

exports being commodity-dependent. Additionally, these studies were trapped in the same method of using the GDP share as the only indicators of such dependency. There needs to be more validated measurement and data to support their categorization. In order to generate comprehensive results one must determine whether or not a country as commodity dependent by measuring the share of export earnings of the top single commodity in the GDP as a percentage of total merchandise exports, and share of government revenue. Indeed, the share of natural resource gross exports in total exports is probably best interpreted as export concentration, as in Lederman and Maloney (2007). Of particular relevance is their finding that the most robustly negatively correlated indicator of natural resource exports with economic growth is the share of natural resource exports in total merchandise exports. It should be noted that, however, the changes in short-term period in this indicator could be misleading, as it could be result from the fluctuation from oil prices and exports.

5.3.2 Share of Export in Diversification Scope

Another widely used measure of diversification is export diversification that refers to deliberate policies intended to change the shares of commodities in the existing export mix, to introduce new products in the export portfolio. One more macroeconomic variable is likely to be affected by oil production and it's a prices change is overall exports. It is a measure of export concentration. We employ the share of non-oil exports in total exports. As mentioned earlier, measuring export products can also be helpful in analysis leading to observations about diversification, and the more diversified the export product mix, the less susceptible an economy is to price and demand fluctuations for a given good or service. Therefore, an economy with a strong foundation in export diversification helps insulate against unexpected changes in the domestic economy, and insulates against the volatility of oil and gas prices (Shediac, et al, 2008). Thereby, the structural transformation in production would ultimately lead to shifts and changes in the structure of foreign trade, especially on the

export side, where the degree of concentration of commodity exports is decreased.

Table 5-4: Share of Oil and non-Oil Export to Total Exports

(1970-2010) in Million .L.D

Years	Oil Export	Non-oil Export	Total Export	Oil export %	Non-oil Export %	Total
1	2	3	4	5=2/4	6 =3/4	7=5+6
1970	699.10	71.00	770.1	90.78	9.22	100
1975	1925.30	98.39	2023.69	95.14	4.86	100
1980	6486.37	51.53	6537.90	99.21	0.79	100
1985	3592.16	81.04	3673.20	97.79	2.21	100
1990	3534.74	210.19	3744.93	96.83	3.17	100
1995	2965.95	256.13	3222.09	92.05	7.95	100
2000	4992.17	229.30	5221.47	96.53	4.39	100
2005	29969.30	1179.00	31148.30	96.21	3.79	100
2010	53397.70	3421.30	56819.00	93.98	6.02	100

Source: Central Bank of Libya, the economic bulletin, various issues

Table 5.4 illustrate the oil and non-oil export performance during the period 1970-2010. The data reveal that oil export have been a major source of foreign exchange earnings amounting more than 95% of the total export, and has never been less than 90% of total exports during the period 1970-2010. It can be explain that despite the main objective of economic development plans pursued since the early of 1970s being to diversify the domestic economic and the export base, but the economic authorities in Libya have not yet achieved these objectives. Regarding the export structure, most of Libya export derives from oil 96.02%, where as non-oil export remind 3.79%. The balance of payment reflects an essential increase of oil export since 2000 due to the upshot in oil prices. At first sight, export revenues are still highly dependent on oil income, since oil exports still dominate total exports. A look at export trends in the non-oil sector shows a positive increase since the year 2005 Table (5.4), but at a slower pace. Also, its contribution to total export is not yet tangible meaning the lack of economic diversification limits the increase in non-oil exports. This is despite all the policies and efforts made through development programmes for more than

three decades to diversify exports. Therefore, these problems mean that the Libyan economy is heavily influenced by what is happening in global markets, especially oil markets. Fluctuations in Libyan exports after a drop in oil prices in the early eighties are clear evidence of this: exports fell by about 44% during the period 1980-1985 (Shamyia, 2007). This impacted negatively on the implementation of several development programmes during this period, as mentioned earlier. Figures contents in Table 5.4 present additional support for the argument that the past decade has brought no export diversification to the Libyan economy. This can partially be explained by the fact that Libya is more dependent on the oil sector and throughout the past decade the production of oil has significantly increased. In this context, the continuance of unilateralism in the structure of Libyan exports is another indicator of the lack of structural diversification desired in the output. It is still exports from the oil and gas sector, and petrochemical industries, which constitute the greatest component among the exports components, and represents the largest proportion in the structure of Libyan exports, which amounted to about 96.21% of total exports in 2005 Table 5.4. While other exports including products of the chemical and petrochemical industries amounted to only a small fraction of exports which did not exceed 2.7% for the same year (Yousef, 2005).

This demonstrates that the continued reliance on a single source in the structure of Libyan exports predicates the inability to achieve the desired level of diversification in the structure of the Libyan economy, thus supporting the aim to alleviate and mitigate the impact of fluctuations that occur in global oil markets on the key economic indicators, mainly the per capita income. In addition, to attain a potential advantage of the dynamic effects of foreign trade in achieving development and economic growth. More so, it demonstrates that the economic growth in the export sector depends mainly on the nature of the exports sector, and backward and forward linkages of oil with other sectors, in the form that leads to transference of growth from relatively developed sectors

to the rest of national economic sectors. In this context, substantial efforts have been made by the State towards increasing the degree of manufacturing in crude oil exported abroad, considering the prospective benefit in terms of comparative advantages of geographical location, and a low fraction of impurities in Libyan oil. Therefore, the shift towards the oil industrial represents a fundamental tributary to increasing the income, output, and capital accumulation via obtaining the added value arising from manufacturing, thus, accelerating technological developments due to a feature of oil industries being that they have a high degree of technologically intensive. In addition, it would increase the rates of employment within the economy, which in turn would undoubtedly reflected in the form of an increase in the degree of export diversification, and increases in the degree of industrialization in the goods exported to abroad (Zayed, et al, 2009).

In this regard, the government has established many oil refineries and factories for the production of Methanol, Urea and liquefied natural gas, where the most important one is the Ras-Lanuf complex, which represents the nucleus for the petrochemical industry and its foundation. This complex, with a high design capacity, began its operation as an ethylene factory in April 1987 (NOL). As a result, the share of exports of oil products and petrochemical products have increased respectively in the structure of Libyan exports, which rose from the level of 1.5% in 1975, to the level of 19.5% in 1995 (Central Bank of Libya, 2006). In spite of this, exports of crude oil remain a key element in the structure of exports; however the export diversification has been confined to oil derivatives, and petrochemical products, which depend mainly on crude oil production. The review of data available indicates that external factors, especially those associated with the political side (e.g., the economic sanction), play a major role in determining the volume of production and exports of these commodities. The next Section is devoted to explore further evidences on the lack of diversification in Libyan economy.

5.3.3 Contribution of Oil and Non-Oil Revenues in the Public Finance

A lot has been researched about the importance of the oil revenues for Libya. There has been a consensus that the structural dependence on this asset is the national source of wealth, but is also a major factor of economic uncertainty (Bergs, 2004). This indicator is commonly used to assess the success and progress of economic diversification, because a decline in this measure over time means to some extent a decline in dependence on oil proceeds (Ali, 2011). Therefore, the public budget reflects the trends of economic and financial policy prospects of this country. Moreover, it is figures and details that show the extent strength of the economy in this country, and its sources of finance, and expenditure trends.

Thereby, the revenues side in this budget determines the funding sources and the extent of its diversification. Thus, the type of economy in this country can also be identified, and whether or not the economy is mono income source nor with different sources of national income. However, the items of revenue in the Libyan public budget reflect their concentration of oil revenue. As the figures in Table 5.5 show, oil revenues evidently dominated in the structure of public revenues. The contribution of oil revenues in the total public revenue are at an average not less than 76% during the selected years, and reached their highest pick of about 92.6% in 2005 (see Table 5.5). In contrast, other sources of revenue (non-oil revenues) have suffered from the problem of reduction of their tax base, which did not exceed an average of 30.5%, and their highest contribution in the total public revenues was estimated at 52.7%, which was achieved in 2000. In this regard, the Libyan economy is not different compared with other typical of developing countries, especially the oil producers. It is still oil revenues which represent a high proportion of public revenues, especially those related to revenue needed to be spent on economic development. This demonstrates that the goal of economic diversification with regard to the high

share of oil revenues in the structure of public revenues has not been achieved yet in the Libyan economy.

This implies that taking into account what has been spent on economic development for decades, Libya was not able to develop economic activity outside the oil sector to an adequate degree that significantly influence in public revenues, thus alleviating the dependence on oil revenue, and therefore reduces the negative effects on economic growth and development resulting from fluctuations that occur in these revenues. This heavy reliance on oil revenues was reflected in the formation of the specific feature of financial policy in the Libyan economy. A decrease emerged in the flexibility of fiscal policy on the revenue side, which was experienced by the economy for many years, especially in a period of falling oil revenues and volatility according to the fluctuation occurring in the demand for oil, and therefore in its prices and the quantity exported to oil markets.

There is no doubt that the marginal non-oil revenues would increase the risks that are facing the public finances, and weaken the link between total value-added and public revenues, thus, makes policy-makers to use a most important instruments of fiscal policy to influence in levels of national economic activity. More so, it would also make this activity subject to the impact of external factors. It has been realised that the development efforts of the Libyan economy were below the required level achieving the goal of economic diversification.

Table 5-5: The Contribution of Oil and Non-Oil Revenues in Public Finance
 (1975-2010) in Million .L.D

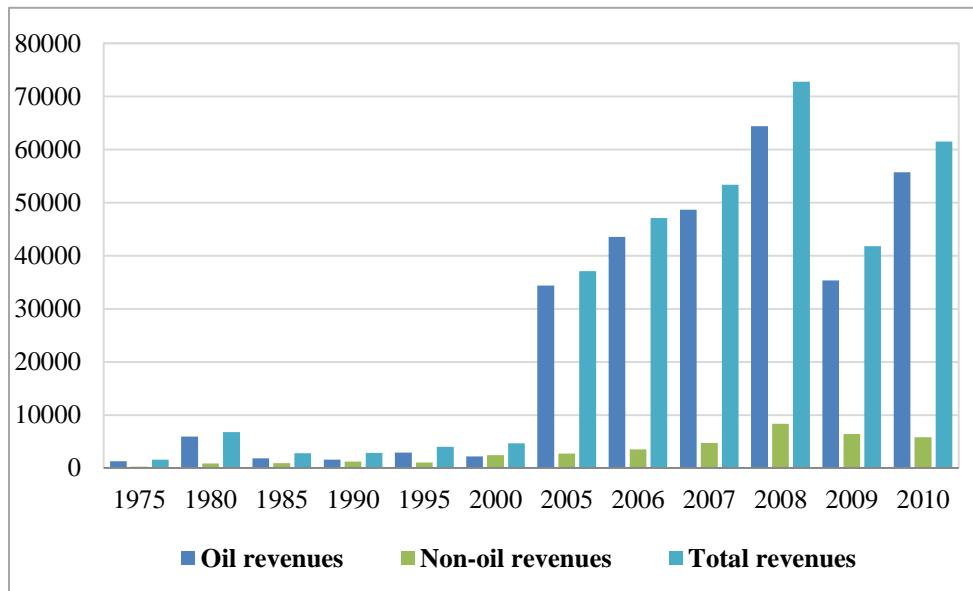
Years	Oil Revenues	Rate of contribution %	Non-oil Revenues	Rate of contribution %	Total Revenues
1975	1283.0	81.2	298.0	18.8	1581.0
1980	5951.1	87.5	849.2	12.5	6800.3
1985	1846.0	66.0	952.6	34.0	2798.6
1990	1600.0	55.9	1260.0	44.1	2860.0
1995	2940.4	73.9	1041.0	26.1	3981.4
2000	2203.0	47.3	2459.2	52.7	4662.2
2005	34378.0	92.6	2728.0	7.4	37106.0
2006	43566.0	92.5	3523	7.5	47089
2007	48638.3	91.1	4728	8.9	53366.3
2008	64417.0	88.6	8324.2	11.4	72741.2
2009	35347.0	84.6	6438.0	15.4	41785.0
2010	55713.0	90.6	5790.1	9.4	61503.1

Source;

- Central Bank of Libya, Annual Report of the ninety fourth Session, Fiscal Year 2005, table No. 29, p. 66.
- Central Bank of Libya, the Economic Bulletin 2010, various issues. Government of Libya

To conclude, the structure of public revenues reveals the dominance of oil revenues over the total revenues, since they represent 75.1% of the public budget, while non-oil revenues represent only 15.9% (Central Bank of Libya, 2005). It appears therefore that non-oil revenues have very low proceeds, due to the dominance of public sector over the economics of the country, and the non-diversification of the production base, and reliance on oil sector to finance the public budget (Ali, 2011). Thus, this may disadvantage and easily affect the public budget, especially if oil prices drop in the global markets.

Figure 5-4: Share of Oil and Non-Oil Revenues in Public Finance



Libya has achieved a satisfactory rate of growth in non-oil sectors, which has led to an increase in the relative contribution of agriculture and industry to the composition of the GDP. However, this growth rate and the likely economic diversification coupled with it, was not lasting and sustainable, due to a number of reasons;

Economic and social development projects were dependent largely on oil exports proceeds in terms of financing. As a result, oil revenues have been deteriorating since the early eighties, which led to further deficiency of State public spending, both consumption and investment. For instance, in the eighties the Libyan economy faced severe funding problems which reduced the capability of the State to tackle the programs of economic and social development, which was reflected in the levels of performance and efficiency ratios in productive projects and public service, and subsequently the low yield in most investment projects. In addition, the subsequent period of 1985, has marked a decline in oil revenues due to the severe decline which occurred in oil

prices in 1986. Thus, this raises the issue of uncertainty in terms of the prospect level of oil revenues, which represent almost the only source of development investments. Such funding difficulties have limited the ability of development efforts to be sustained. In addition, economic planning for the medium and long-term was seized and replaced by the annual budgets for development.

Thereby, the decline of public revenue due to the decrease of oil revenues, which represents the backbone for financing public expenditure, has led the State to face two challenges; either to maintain the stability of public expenditure, which would cause volatility in the public budget deficit, or to maintain the stability of the deficit to reduce public spending. As a result, the country has chosen to reduce public spending in order to control the deficit in the public budget, and the increase of public debt in domestic banking. More so, control measures need to be in place in order to avoid the negative consequences that may ensue as a result of the volatility of oil revenue, and the effect of its downward trend on economic stability and conditions of the trade balance, and thus on all economic indicators.

In the context of maintaining the gains that have been made in the area of social and human development, the development expenditure has taken the greatest reduction experienced by public spending. This is reflected in the form of declines in the total investment in the Libyan economy, which reflected in turn negatively in economic growth rates, especially in non-oil sectors, accompanied by a decrease in production capacities and services, low performance of many infrastructure projects, emerging the black market, and severe inflation, which all in turn contributed to further economic stagnation and low growth rates.

There is no doubt that such problems highlight the importance of economic planning for development in the medium and long term, in order to mobilize and allocate the available resources capacity. It can be argued in this context that the development policies associated with the allocation of finite resources to various

economic sectors, and employments has had a significant impact on the management of development. In other words, how can Libya use these resources effectively? If structural change is a prerequisite condition for the sustainability of economic growth, and getting rid of the current dependency of the oil sector, the development policies that are associated with the allocation of the available financial resources to employment and various economic sectors represents a key element in achieving this goal (Zayed *et al*, 2009).

Thus, the development planning experienced by the Libyan economy has relied heavily on public investment spending. Hence, the contribution of the private sector in gross fixed capital formation was inadequate, as this amount did not exceed an average level of 14% of the total investments implemented in the economy (Shamyia, 2007). It also indicates that the extent of the contribution of the private sector in gross fixed capital formation by economic sector was not a directed private investment to invest in agricultural and industry project in order to serve the goal of economic diversification, but rather it was directed mostly to businesses ventures and services, and to investing in the non-tradable goods for international exchange. It can be argued that it is unwise to depend on the private sector achieving developments aimed at diversifying the structure of the national economy, and increasing the contribution of non-oil sectors to GDP, in a form that mitigates the dominance of oil, both in the structure of output or in the structure of exports, unless activate the role of private sector in the economy as indicated by this study thereafter in the discussion chapter.

It seems that there are a number of obstacles which have contributed to the inability to achieve the goal of structural diversification in the Libyan economy. These obstacles or factors are divided into two groups, some are associated with the characteristics of the Libyan economy and its development conditions, and others are associated with the characteristics of management and human resources development. These obstacles vary in terms of their importance and

their effects, but they represent coherent and interrelated factors that have reduced the opportunities for achieving economic diversification desired.

Therefore, the substantial dependence of the Libyan export structure on crude oil has a negative impact on the public budget. In addition, the relatively increase of youthful age of the population affected in turn the absorptive capacity of the economy, as it has influenced the productive capacity available, and hence the budget available for investment decisions. Additionally, a lack of planning for medium and long-term development for the last two decades, and also the lack of apparent policies related to development have played an important role in the failure to achieve an acceptable degree of diversification in the structure of the Libyan economy.

Moreover, the management's inefficiency in mobilizing the resources available, and developing the Libyan human resources element (human capital), have contributed greatly to impeding the process of economic development and achieving the desired economic diversification. In this framework one can review the most important obstacles that prevented the goal of achieving economic diversification in Libya, as findings which have been reached by the research study.

5.4 Obstacles to Achieve Desired Degree of Diversification

It is worth shedding light on why Libya was unable to attain the desired level of economic diversification? In other words, the factors that played a part in the erosion of gains from diversification. Consider the main objective of reducing the heavy dependence on oil by developing non-oil sectors of the economy. It is imperative to assess how Libya was unsuccessful in achieving these goals in the last few decades and to understand what the constraints are that have impeded their achievements.

In this subheading we attempt to discuss and analyse the major obstacles that have contributed to the inability to make diversification possible. These factors that have undermined diversification efforts are imperative to identify, because they would be considered in the discussion chapter as findings.

1- Obstacles associated with the Characteristics of the Libyan Economy

The special nature of the export sector in the Libyan economy is characterized by depending on a single commodity export, which dominates the export structure (crude oil commodity). It has been realised that the links of oil sector in regard with the rest of other economic sectors are weak both backward and forward, especially those having a great influence on movement of resources between the various economic sectors. This illustrates the lack of reliability of the foreign trade sector in achieving economic development (Bergs, 2004). In this context, the growth of export sector (oil sector) in the Libyan economy can only be achieved through the funding component. Its main impact can be seen in the components of spending greater than its effect on the movement of resources within the economy, due to its weak forward and backward links on one hand, and because of its reliance on high-tech capital-intensive sector on the other hand, making it an isolated pocket export (enclave). It is also reduces the possibility of gaining benefits from the dynamic effects of foreign trade on economic growth, when growth is driven by expansion in exports.

The fiscal policy is weak on the revenue side, owing to the reliance in financing public budget, especially on investment spending on exports revenues of crude oil. Public budget on the revenue side was characterised by high volatility and being extremely sensitive to fluctuations in crude oil prices or quantities demanded, due to fluctuations in global oil demand, which is mainly associated with world economic growth rates, or due to the policies pursued by OPEC, or by the major industrialized countries importing Libyan crude oil. This has resulted in an inability to control fiscal policy instruments on the public revenue side, and is confined on the expenditure side only to the structure of the public budget. This outcome implies that any fluctuations that occur in the external sector would therefore have an impact on the circumstances of the public budget, especially on the expenditure side, notably the development spending.

In more detail, given the volatility that has characterized the oil revenues, especially in the eighties public spending has also fluctuated accordingly. The investment spending took a high fraction of the reduction of public spending due to the decline of oil revenues, making a negative impact on the overall economic development process and structural diversification attempts. Whereas the current spending (administrative) has received relative stability, which stems from the pursuit of the State to maintain the same level of services provided to citizens in the context of social welfare policies and income distribution. In view that, the path of public spending in the Libyan economy during the past three decades illustrates the extent effect of public budget conditions to crude oil exports. Therefore, the trend of public spending was increased during the years of an oil exports boom, while decreasing during the years of decline in oil export earnings, which is consistent with the findings of the study conducted by (Elbadawi & Gelb, 2010), regarding the stability of fiscal policy in oil exporting countries.

It is understandable that public investment spending has declined successively during the period 1980 to 1985 (CBL, 2005), either in absolute values or as a percentage of total public spending. This coincided with the abandonment of economic planning for development in the medium and long term, and was replaced by the annual development budgets, subject to the availability of oil revenues. Taking into account the impact of quantitative restrictions on imports, public investment spending involves a necessary component of importation in relation to imports of technology, intermediate goods, semi-finished, and input production needed for the process of economic development and structural diversification. Hence, it the negative impact of annual lower investment spending has been noticeable on the overall process development and the goal of economic diversification in particular. Therefore, since the largest proportion of administration expenditures serve the item of salaries, wages, and general expenses, and are not directed to maintain the existing capital, thus the negative impact which resulted from the changes in the structure of public spending seems to be clear and evident on the objective of diversifying sources of income and production in the Libyan economy.

Small portion of national savings due to the weakness of private savings and the small non-oil revenues (for instance, taxes on income) in the structure of public revenues, due to the weakness of economic activities outside the oil sector, and the decline in real incomes of citizens, especially since the early nineties under the regime of a fixed salary since 1981 (Otman, and Karlberg 2007). This small fraction of domestic savings means the process of economic development in all its aspects is subject to the allocation of oil revenues to the public budget. Thus, the volatility of non-oil revenues in the structure of public revenues is an indication of the heavy reliance of public revenues on oil revenues, or on what is being allocated to the Public Treasury from these revenues. Especially finance budget expenses, which are entirely dependent in their sources of funding on income derived from the oil sector. Thus, to finance the import of capital goods

and technology this is essential for economic development and the transition towards structural diversification. The Symptoms of the ‘Dutch disease’ or illness of oil, experienced by the Libyan economy contributed largely to create the structural diversification objective improbable, which in turn led to further structural imbalance, due to the growth occurred in services sector was at a faster growth rate than in non-oil productive sectors. Hence, additional variation in relative sectoral productivity appeared among the different economic sectors.

Perhaps the estimated exchange rate of the local currency above its real value has contributed to the worsening of the symptoms of the Dutch disease. In this context, the State has realised that it is more reasonable economically to import goods from abroad rather than produce locally, owing to the low import cost compared to the cost producing locally. This has contributed to the shift of resources to service sectors such as home ownership and real estate, and investing in the sectors of non-tradable goods for international exchange, such as construction. The increase in per capita income has raised the demand on these services sectors, either thanks to the discovery of natural wealth, or because of a substantial increase in the price of a primary commodity export, which is experienced by the Libyan economy during the previous period (Edwick, 2007).

A small and limited domestic market has played an important role in the lack of structural diversification in the Libyan economy, either in terms of the weak absorptive capacity, or due to the low production capacity of the economy. This in fact can be attributed to relatively a small population, and the low quality of manpower needed for the development process in the economy. In addition, the decline in real per capita income has demonstrated the lack and inability to stimulate investment from the demand side. Moreover, imbalanced production factors due to a low quality of human capital causes restrictions in investment from the supply side. This has constituted another significant obstacle considering developing countries that have suffered from a lack of human capital abundance that needed to finance investment and development, and

achieve the goal of structural diversification. The increased rates of population growth that accompanied the development process in the Libyan economy during the last two decades have created large costs on what is being allocated to human and social development. Changes of high rates of population growth, in particular an increase in the young population, broadening the base of workforce, caused an upward trend in the proportion of expenditure in the structure of public expenditure, it aimed to develop the human element, and increase its efficiency as an imperative goal for economic development and its main tool (African Development Bank, 2009).

Thus, all the above mentioned have placed an additional constraint, thanks to low oil revenues available to develop non-oil productive sectors, especially in agriculture and industry. Therefore, the consequent decline in the oil revenues resulted in a decline in per capita public spending on health, education, and the basic services provided by the State, and thus implications on the efficiency and quality of human capital, and consequently the goal of achieving economic the diversification objective.

2- Obstacles Associated with the Economic Policies Pursued

If it is possible to say that there are domestic and foreign factors associated with the characteristics of the Libyan economy and the nature of its export sector, these have hindered the possibility of achieving the goal of economic diversification. Therefore, other factors linked to the economic policies pursued have also played an equally important role in the lack of achieving the goal of structural diversification in the Libyan economy. In the late last century the lack of planning for development (specifically since 1986), the lack of a strategic vision for medium and long-term, and the lack of clarity of policies and objectives, have achieved only a modest level of structural diversification in the Libyan economy. Thus, the economy continued to depend on a single resource, or in the structure of output or in the structure of exports, but even in the structure of public revenues, which can be summarized in the following points;

Trade policies adopted by the government to impose restrictions on imports and foreign exchange have coincided with the orientation of the State to reduce public spending. This has led to diminishing the chances to attain an advantage from technological diffusion that can arise from openness to foreign trade. For instance, importing more capital goods, intermediate commodities, and technologies needed to update the methods and production conditions in the economy. In fact, it can be achieved by the utilization of plentiful that are arising from expenditure on scientific research and development (R&D) with the most important trading partners, which is considered a key determination of economic growth as mentioned by the modern theories of economic growth (Bergs, 2004).

Further, it can be argued that the policy of devaluation of the Libyan Dinar, implemented in 1999, has hampered the process of diversifying the economic structure, due to its negative impact that can arise especially on the structure of domestic prices. Nonetheless, the need for higher amount of savings cannot be tackled by currency devaluation because diversification will not be achieved simply by changing the relative price of tradable and non-tradable goods (IMF, 2013). Thus, the reduction in the exchange rate of the domestic currency would lead to an increase in the overall level of domestic prices, due to the rise in imports prices of consumer, investment, and intermediate goods, owing to the high degree of openness of the Libyan economy to the outside do to its high marginal propensity of import. Furthermore, the reduction in the exchange rate is owing to the increase in prices of local products that depend on the production of raw materials, technology, and capital goods and intermediate and production inputs imported from abroad.

The lack of set coherent economic policies causes a situation of uncertainty at the macro level. Most of its features apparently appeared in the high rates of inflation (about 11.7% annually on average for the period 1990 to 1997), the

emergence of a black market currency, and the volatility of the public debt as a percentage of the GDP, and trade balance deficits. For instance, domestic public banking debt rose from 144.3 million Libyan Dinars in 1973 to about 4.4841 million Libyan Dinars in 1995 (CBL, 2005), which has negatively affected economic growth, and thus the goal of diversifying the structure of income and output in the Libyan economy. In this context, the lack of financial markets, and the high degree of openness of the Libyan economy to the outside world, compared with its relatively small size, has limited the role of monetary authorities to influence the monetary variables and therefore weakened the role of monetary policy to influence economic activity and its key variables when using its traditional tools.

The policy pursued in terms of increasing reserves has reduced the availability of resources to mobilize on various economic sectors. While this policy has not taken into account the increase in the opportunity cost it may cause, due to misallocation of these resources, such as a decreasing level of employment, and increasing unemployment rates, and decline rates of economic growth. Given that the increase in foreign reserves of the State is not an objective of economic policy. Hence, holding too large level of reserves, more than the secure and sufficient level, involves opportunity cost that may be high for Libyan economy, which is looking for alternative income sources (Ali, 2011).

All the earlier discussion indicate the necessity of reconsidering either the policy concerning the allocation of resources, and determining the priorities of the development spending, or in respect of development desired in the institutions that have undertaken to implement the development action, and the implications of the structural transitions required, or in relation to the efficiency of individuals and their technical willingness. It is worth saying in this regard that economists e.g., Hammouda *et al*, (2006), assumed that the physical capital element “productive assets” represented the key element in achieving the productive wealth of a country. However, according to an assessment of studies

of 192 countries conducted by the World Bank (2006) the outcomes indicated that physical capital does not constitute an average of only 16% of the total wealth, with natural capital accounting for 20%, while the most important factor other than these two elements is human capital, which represented 64% of the productive wealth.

This perhaps requires a focus predominantly on the human capital as a target for development, which calls for intensive investment support to develop human capital both in quality and quantity. Additionally, it requires an improvement in management systems, in terms of planning, implementation, supervision and control, within the context of accurate analysis, given that the Libyan economy characteristic by comparative advantages. Also an accurate follow-up of global economic developments would enable an increase in the ability to predict the volume of likely revenues, and thus create more favourable conditions for economic planning.

In Libya in particular, the performance of the economy and development during the past quarter century (1975-2000) did not cause any substantial improvement in the overall productivity of the economy, or in the productivity of the human element, or even more in the productivity of investment. This has reflected negatively on the overall growth rates, despite the huge investment that has been allocated. Thus, one can simply conclude that the efforts of human investment and human development need to develop its quality of outputs, and improve its returns.

3- The Obstacles Associated with Human Resources Management

Despite the presence and relative importance of the management element, it is not sufficient to achieve the development and economic diversification desired. Hence, achieving the goal of economic diversification and overall development would require in addition to the availability of the management factor, the availability of management that can perform well and are able to achieve both in structural quality and quantity transformation of the Libyan economy. In this regard, it can be underlined that the most important features that characterized the management of development in all sectors of administration, both public and private (in particular those concerning human resources), that have prevented the achievement of the economic diversification objectives in Libya economy during the earlier period are notably; decrease the effectiveness of the administrative performance, and the bureaucracy of the administrative system attitude towards development.

Since the beginning of the eighties public sector administration has endured the burden of economic and social development in the country, and has remained the only source of employment, playing the key role in all economic activities. Accordingly, most of its institutions have taken tasks and functions of management in terms of spending oil revenues, and means of distribution, managing to maintain the surpluses of revenues or at least to obtain the largest share, while neglecting their ability to make the optimum use of these resources to achieve the objectives of economic diversification. Due to the variety and complexity of institutions in the public sector and the expansion in terms of employees⁴, where the adoption of employment greatly depends on mediation

⁴ This size has reached almost 17% of the population in some years, therefore, this size can be considered as excessive compared with some other countries such as Egypt, Algeria and Britain, which did not increased the volume of employees in public administration beyond 10%, 6.5%, and about 9% of the population size respectively, (Unpublished study of the administrative system in Libya).

and social relations, and weak control over its operations, along with some other factors, as a result, these public administration institutions have operated at a low level of effectiveness, and were unable to achieve the desired level of economic diversification. In this respect, the international indicator of the effectiveness of public administration indicated a decrease in the effectiveness of management of public institutions in Libya. The values of the index ranged between -0.97 and -1.51, on the degrees of achievement in the field of international governance, during the period of 1996-2005. Moreover, values which are related to the international index of regulation and control in public policies in Libya were also low, ranging between -1.41, -2.93 on the degree of achievement of international the scale during the same period (African Development Bank, 2009).

Given the performance of the industrial sector, which the State relied upon largely for economic diversification, it is clear from annual report of Central Bank of Libya, 2006, that there is a low level of performance in this sector. For instance, the percentage of shortage in production capacities of this sector reached about 58% of total productivity in 1998 (CBL, 2006). In light of this low level of effective performance of public administration and its institutions in managing the development, it becomes unlikely that this administration and its various institutions will make any improvements in the efficient use of available resources.

There are a various factors that have contributed to the decline in the effectiveness of the administrative sector in Libya perhaps the most important are the annual structural changes in the administrative system. Thus, these changes have affected the efficiency and effectiveness of its institutions, which led to the emergence of many problems, notably the lack of administrative stability, which is essential for the stability of economic policies, which has reflected negatively on the administrative system through the following:-

- i. The low capability of the administrative system to implement the assigned public policies, and the poor quality of its efficiency and effectiveness, due to the variation in policy makers' views in terms of its application.
- ii. Increases in the difficulty and a lack of effective monitoring and control.
- iii. Increases in the difficulty of controlling public spending, prices or quality of the delivery of public services.
- iv. Lack of a stable environment, which may encourage corruption and the loss of transparency due to the difficulty of monitoring and accountability.
- v. The dispersion of responsibility and administrative laxity, and the loss of many national documents, such as reports.

4- Low Efficiency of the Human Resource and its Level of Skills

Despite the substantial development efforts that have been made over the last three decades, and the magnitude of resources that have been allocated for the process of economic and social development during this period, the outcomes of those efforts are still modest compared to the size and nature of development challenges, and the level of development made by some developing countries, in this regard. Perhaps the reason can be attributed to a lack of a comprehensive and sound plan for the development of human resources engaged in public administrative and other economic institutions that would enable Libya to accomplish its development objectives.

There is no doubt that human resources are the most important source of the administrative device, and the principal assets owned by its institutions. Thus, it is easy to replace equipment, machinery, and obsolete buildings with new ones, if there is money available for funding. However, a lack of an efficient human resource in any institution regarded a major obstacle requires a long time to tackled (Coury & Dave 2009). Therefore, the successes achieved by many developed and developing countries in the field of economic and social

development, based mainly on the features of human resources owned by these countries, was reflected mainly in its comparative advantage. Data are available on this aspect in Libya, and clearly indicate that there is an imbalance in the composition, capabilities and skills of the employees in public administrative and economic institutions. It is also evident that there is an imbalance experienced by the workforce in the administrative system and its economic institutions. For instance, many companies in Libya have suffered from the weak proficiency and efficiency levels, and the lack of professional competence, of the graduates of intermediate Institutes and University faculties, who have needed intensive re-training to make them able to meet the requirements of the jobs of those companies. This was attributed mainly to the domination of education and theoretical training instead of applied education and practice, and this is also confirmed by international reports about the low quality of education in Libya. For example during the year 2005 Libya was ranked as 110th of 111 on the quality of its education (African Development Bank, 2009). On the whole, these results reflect the inability of educational institutions to cope with the requirements of the labour market in supporting the process of economic development and structural transformation, which is reflected in the form of the accumulation of a large number of employees who are under qualified enough to fit the career job. This situation led to the inadequate functioning of industry in different economic sectors, which have contributed directly to impeding any efforts made to achieve the desired structural diversification in the Libyan economy.

From the above mentioned we can conclude that the level of skills and knowledge possessed by the human resources in different economic institutions are inconsistent with the requirements of economic diversification and enhancing productivity. This has also represented one of the major obstacles or challenges in terms of a lack of private enterprises and small business (SMEs) in the local market to contribute towards achieving economic development.

Therefore, any efforts directed towards economic diversification are unlikely to succeed unless they address the existence gap between the capabilities and skills of graduates and local market demands.

5- The wide Spread Problem of Corruption

Since the late last century, issues such as transparency, financial and administrative corruption have become a big concern for the international community. That is because of the nature of this problem, which causes significant effects on the destinies and lives of peoples, and thus on the entire global community. In this regard many standards for measuring administrative corruption have been created, and a global agreement against corruption was also formulated by the United Nations in order to dedicate the efforts of States to combat this problem. For instance, in Libya, in spite of some legislation and regulations issued to combat, undermine, and restrain the corruption, the country continued to rank at the lowest level of the scale for spread corruption, as shown in the report of the Corruption Perceptions Index (CPI). This highlights the inadequate action undertaken in this aspect, where the level obtained by Libya on the Transparency International Scale during the period of 2003-2005 did not exceed 2.5 out of 10 degrees (IMF, 2006). This low level reflecting the needs to make more efforts to restrain the corruption, which has expended its negative effects on the national economy through distorting of public spending, and diminishing the credibility of the state, which in turn reduces economic investment and overall economic growth, and even more, weakens the quality of the infrastructure and public services.

5.5 Conclusion

Chapter five reviewed the past efforts undertaken to diversify the Libyan economy and broaden its productive base. Various macroeconomic, sectoral and industry indicators were examined to measure the success of the attempted policies. It was seen that despite the various achievements on this front much remains to be done. Policies to induce added diversification and competitiveness in the Libyan economy were reviewed and discussed. Based on the findings obtained from a number of indicators applied, in the light of Libya oil overreliance, the analysis show that review of development efforts towards diversification had been disappointing, and the overall economic performance was below the desired level. This indicates that the diversification efforts have not yet resulted in a sustainable development pattern. Inefficiency allocation of the available resources, and poor macroeconomic management might be contributed to this end. Further analysis on the structure of export pointed out that more than 98% of Libya's total exports are oil and gas (high concentration ratio), and its continuation at the same pace will reduce the opportunities for economic growth in the Libyan economy. This high fraction of exports creates a fundamental hinder to macroeconomic management and limits the employment growth outside the public sector. Further evaluations were made to explore the contribution of oil revenues to the total public revenues of the Libyan economy. The chapter has also discussed in details a number of constraints which have undermined the implementation to achieve diversification objective in the structure of Libya's economy namely; the lack of set coherent economic policies have caused a situation of uncertainty at the macro level. Moreover, inefficiency of human capital due to their low level of skills has led to low level of labour productivity.

Chapter 6: Research Methodology

6.1 Introduction

There are many different techniques that can be used to collect information concerning natural phenomenon and events, the type of information that the researcher wants to collect has to be considered when choosing which technique to use. One technique is called the scientific approach and this involves the relationships between the phenomena being completely independent from the researcher's ideas and opinions. In terms of the theoretical side this study is based on the descriptive approach and content analysis of earlier studies that addressed the subject of economic diversification.

On the practical side, the study has adopted the deductive approach to attain results and recommendations derived from the information and findings that have been achieved by the researcher through the questionnaire survey and the face-to-face interviews conducted. This chapter is going to outline the research design and methodology that was used in this project. Data was collected via interviews conducted with senior officials in the government in Libya. A senior official is any government official who holds a supervisory role, from heads of departments to secretaries of ministries. All methods will be discussed, as will any difficulties that arose.

6.2 Research Philosophy

Research might be done in two ways, by using either a quantitative approach or a qualitative approach to analyse the data. Saunders *et al.* (2009) elucidated the deductive approach as one which should use the theory to design the research strategy in order to test the hypotheses. Likewise, using the quantitative approach we should be able to collect the data and then develop a theory that matches, this should be as a result of the analysis.

Typically, at some stages of our research, we intend to use the inductive approach, and the reason for that is that some of data will be available acquired from our literature survey. At some stages where it is possible to use either a qualitative or a quantitative approach, the researcher should select the approach depending on the topic itself. Thus, if the topic is theoretical the researcher should adopt an inductive approach as Saunders *et al.*, (2009) stated. Therefore, due to the research dealing with both the theoretical and the practical side, we intend to use a combination of both quantitative and qualitative approaches. By using both methods in our survey we will tackle the disadvantages of a qualitative approach which is the difficulty of evaluating the data collected for the research.

6.3 Research Approach

The research methods denote all the different methods and processes that the researcher will use. The methods chosen are based upon the type of research, type of participants, and other factors such as time and money constraints and the qualifications and experience of the researcher (Greene, 2008). Therefore, to seek the views of all participants, in order to collect valid and reliable data that are relevant to the research question and, in order to reach the objective of this research, two different types of data collection techniques were used. The methods were; questionnaires survey and in-depth (face-to-face) interviews, with the questionnaire being quantitative and the interviews being qualitative.

They will both now be discussed in further detail. A qualitative research face-to-face interview was the appropriate method of inquiry for this study because the researcher attempted to establish the meaning of a phenomenon from the views of participants. In this regard, the researcher has built his knowledge according to other human relationships, therefore, the truth comes from what others have said, and findings and results of this study are based upon Libyan stakeholders' opinions. Thus, the study must be grounded in real participation within the observed phenomenon. The quantitative research tradition is associated with a number of different approaches to data collection. The most common are surveys and experiments, followed by analysis of previously-collected data such as official statistics (Bryman & Bell, 2007). More specifically, the research involved a holistic exploration of the use of oil earnings for the consideration of future prospects of income-diversifying activities and their capability to promote sustainable livelihoods and a sustainable environment. This approach helps to gather information rapidly that can be simply analysed. The results will be discussed and the findings will be presented to validate the research objective.

6.4 Research Strategy

Concerning the above mentioned questions and objectives, the research strategy is the mode by which to conduct the research with an empirical approach. In other words, it is the method the research uses to move from the suggestion part to the practical part, this is through data collection. It will also contain objectives, derived from the research question. Moreover, there are quite a lot of research strategies, some belong to the deductive approach and others belong to the inductive approaches (Saunders, *et al*, 2009). There are different strategies that can be used but the strategy should be chosen based on the aims of the research. Bryman and Bell (2007) discussed the two main types of research strategy which are deductive and inductive. A deductive research strategy entails making conclusions that are based on facts; suggesting that there needs to be a large amount of facts upon which conclusions can be made. Bryman and Bell

(2007) state that the conclusions made do not necessarily have to be new, but they must be shown in a new way. The inductive strategy uses data collection and observation to draw conclusions to answer the research question and to create new laws and theories. This research used an inductive approach dealing with the data collected from questionnaires and interviews. According to Saunders *et al.* (2009), one must consider the following research strategy: experiment, survey, case study, ground theory, ethnography, action research, cross-sectional longitudinal studies and exploratory, descriptive and explanatory studies.

6.5 Research Methodology

The term methodology is used to denote the methods that are used in research. Saunders, *et al.*, (2009) states that a scientific methodology uses clearly defined rules so that significant results can be produced. This suggests that not only should rules be applied, but communication amongst the researchers should be made easy and credible, where verifiable. Bryman and Bell (2008) outline that there are two main types of research methodology, these are quantitative and qualitative. A qualitative approach gathers data through assessing the opinions views and experiences of the participants. Qualitative research is best used when the research aims to gather information about events or experiences that the researcher does not know much about, or when there is not much literature available (Greene, 2008). Most evidently qualitative research tends to be concerned with words rather than numbers. A quantitative methodology is best suited when there is an abundant amount of literature and information surrounding the subject as it is easier to develop a hypothesis. Furthermore, as the level of the problem that is being researched is very clear, a quantitative approach can be used to help find solutions (Saunders, *et al.*, 2009). This study of research used both qualitative and quantitative approaches. This is due to the fact that a specific case in a specific topic area research questions was studied which required a quantitative approach, and additionally the study aimed to

gather information about people's feelings and experiences, which can be done using a qualitative approach.

Data was collected through two main sources; the secondary and the primary sources in three phases. Firstly, the literature review followed by the survey questionnaire and thirdly, the face-to-face interview. The first stage of the research essentially involved a critical review of relevant literature using books, articles, journals, reports, unpublished thesis, websites, and government organizations in order to gather secondary data, appreciate related previous work and avoid repeating the efforts of previous researchers. The most important advantages of using secondary data are the cost and time saving they offer the researcher. It enables researchers to interpret primary data with more insight that might lead to further discoveries, and provide a source of comparative data to check on the reliability of data gathered from primary research (Saunders, *et al*, 2009). It also helped in framing a research focus and provided a background to the study of diversification and sustainable non-oil growth in Libya. This was done prior to the field work and questionnaire design.

6.5.1 Literature Review

Reviewing the literature is vital in respect of any dissertation, since it allows the investigator to discover what work has already been undertaken and published in the subject area being pursued, and hence, it gives a clear direction for the researcher to follow. The exercise also prevents the researcher from duplicating the efforts of previous investigators, and provides the stimulus to focus on more specialised information sources. In exploring the literature, the review covers the body of knowledge related to diversifying primary commodity dependent economies. As a result it provides information regarding how alternative sources of income have developed, and what have emerged as good economic policies to follow, and what impediments were experienced by countries during their economic development. From this information, it is possible to identify aspects

of good practice, and to determine how effective they might be in the Libyan context.

Furthermore, the literature review explores published information and data (annual reports, statistics, websites, journals, textbooks) related to associated issues, since as noted by Bryman and Bell (2008) a wealth of information exists in already published research projects, annual indexes and other types of publications. This data is of value in analysing matters concerned with Libya's economic development. As indicated earlier, references to other countries' experiences, such as Malaysia, and Indonesia are considered, since these economies have certain similarities to the Libyan economy. Consequently, it is possible to learn from their experiences, particularly regarding how to establish sound economic policies allowing the country to avoid further dependency on oil and ensuring that proceeds generated from oil continue to be managed sustainably and smartly in the future. The case studies also show how oil revenues can contribute to expanding the narrow base of the economy and diversifying into other economic activities to generate growth and create employment. It is important to remember, however, that as Greene, (2008) warns, secondary data has the disadvantage of becoming out of date, and not being appropriate for the accurate needs of a particular research problem, and therefore, to use this as the major source of information is not wise. Moreover, secondary data include both quantitative and qualitative information, and may either be presented in published documentation as data that has been subjected to little processing, or as data that has undergone extensive statistical analysis (Saunders, *et al*, 2009). Therefore, the choice of literature and data to be reviewed has been made carefully. Furthermore, secondary data by itself cannot, meet the specific needs of particular situations, problems or settings, and it is essential to obtain primary data to overcome this shortcoming. Consequently, primary data is obtained through conducting fieldwork as reported in the following section.

6.6 Primary Data

The second and third stages were to gather primary data, using the sequential approach through questionnaire administration and face-to-face interview. These were done in order to obtain relevant information in relation to the research and to determine why non-oil sectors are negligible in diversifying economic activities in Libya. The results obtained from the questionnaire were analysed using the Statistical Packages for Social Sciences (SPSS).

Original primary data takes a variety of forms, and can be obtained by using different approaches. These could take the forms most popularly used in previous studies, such as, interviews, observation, and questionnaire surveys that related to a specific research area. Bryman & Bell (2007) point out that the most important advantages of using primary data is that it enables the researcher to concentrate on the specific requirements of the study to suit the main research purpose, for instance, thoughts, point of views, and perceptions to questions seeking for particular responses. These questions are supposed to be answered by a sample of people who have already been chosen, and who are actually concerned with the issue that the research is working on.

6.7 Questionnaire Design

Each question was drawn from the literature review and the researcher cautiously analysed each for its relevance to the research objective in order to determine public awareness, taking into account issues considered in the previous chapters; such as; oil dominance and the key issues associated with dependency, for instance, the economic impact of oil depletion, and the major trends of oil price instability in order to explore their relevance to Libya's economic performance (see Table 5.1 for more details).

The main aim was to survey a sample of the inhabitants of Libya in order to attain an indication of consciousness. The main objective for this survey of a sample of the population is to obtain an indication of the public awareness in

relation to several critical economic factors, including persistently strong dependence on oil income, and the negligible impact of non-oil economic activities that affect its growth prospect, which they have yet to have a sufficient impact on the job creation. In the previous chapters we have gained an understanding of the seriousness of some of these issues, which are likely to confront Libya's economy in the long run, with regard to possibility of declining incomes and their living standards. This arise a big concern about the economic strategy that the country needs to pursue if it intends to reduce its heavy dependence on oil. For instance, Libya has an awareness of oil's importance and its expected depletion, it is clear therefore that significant policy alterations are needed to avoid the deleterious effects that will be experienced as oil is depleted over the coming decades. However, what is not evident is whether there have been ample efforts to mitigate the substantial dependency on oil income. The survey will be conducted with a view to asking responders' perceptions of how the non-oil sector can be promoted in a timely fashion to coincide with the ultimate depletion of oil resources.

The opinion survey was conducted in order to ensure that the problem was viewed from different public awareness perspectives, and to allow for more accurate and adequate information. On the one hand, the survey is a useful tool for exploring and providing insight into prospects of establishing a solid basis for the development of the non-oil economy, as Libyan economy has performed inadequately in this scope. The survey also served to attain an understanding of representatives' perceptions about current and likely trends for the diversification of economic activities, and making better use of the country's oil wealth by conversing with policy makers, government officials, economic specialists, and top management in key of Libyan administrations. On the other hand, a face-to-face interview provides the relevant data and information to indicate the pattern of development for non-oil sectors and their potential contribution to Libya's economy. The combination of the two methods provides

precious and rich material to unravel the dynamics behind the development of non-oil sectors and their role in Libya's economic growth. This worthwhile information which we believe has served the objective of this research is based on analysis, inferences and recommendations presented in this survey. It covers the key issues which researchers, policymakers and industrial stakeholders need to be aware of to promote economic diversification in resource intensive economies such as Libya. More so, their perceptions will provide practical insights on how to address the policy imperatives of Libya's economy in order to foster economic and social development, and to meet the basic needs of Libyan populations. The findings of this research will prove useful to policymakers as they grapple with the challenges of using their resources effectively for sustainable economic growth and development.

6.7.1 A Detailed Source of Information by Section

In view of the above, the questionnaire survey for the research was developed and structured in five sections, with each part having a minimum of four questions and a maximum of six. Each of these questionnaires was sub-divided into different sections with each section attempting to elicit relevant information addressing each of the objectives.

Section one was designed to collect background information relating to respondents involved in survey. It consists of six questions seeking to gather merely their main characteristics in terms of age, gender, and level of education, job experience, and respondent's job position.

Section two was based on the respondent's awareness of oil dominance as a main feature of the Libyan economy. This part queries if Libyans are actually aware that continuous of dependency on oil is an unreliable option, and how this may have affected their country's economic performance.

Section three evaluates the actual state of the economic performance of non-oil sectors in Libya to ascertain respondents' opinions on their limited structural gap; the aim is to enhance its weak role in Libyan economy in terms of GDP, employment, and private sector expansion. This section is directly related to Chapter 5, where we reviewed Libyan government efforts to diversify away from the oil sector.

Section four explores the potential prospects on the need for economic diversification and request for the opinion of respondents to see, if they agreed or disagreed that the quest for economic diversification is a meaningful policy objective, with a view to achieve broad-based economy prosperity.

Section five seeks to further ascertain respondents' perception view on whether diversification is likely to generate huge income and employment opportunities for the rapidly growing Libyan labour force, and if the economy can be sustained beyond the exhaustion of oil resources.

Section six examines the factors likely to lead to accomplishing sustainable growth and seeks to confirm whether prudent macroeconomic management and a robust institution are a necessary prerequisite for accomplishing the desired level of diversification.

The survey also aimed to gather additional feedback in terms of suggestions on which non-oil sectors should be targeted, and assesses what needs to be prepared to change the economic situation for the better. It is acknowledged that, as it stands, the sample from the survey are representative of those concerned with the economic diversification agenda, because they are well knowledgeable in this subject. The findings from the analysis of the primary data, thus, might support and substantiate the findings of the abroad analyses presented in the previous chapters.

6.8 Determining the Population, and Selecting the Sample Size

In terms of sample size, as this study tends to be qualitative, the size of each sample is controlled for the purpose of the study. Therefore, the leading concerns about the sample size are what size is relevant to the study, and the associated risks of selecting a bad sample (Greener, 2008), owing to sampling constitutes being a key point of the research process. Thus, the need to sample is one that is almost invariably come across in quantitative research. In this research, we will be almost entirely concerned with matters concerning sampling in relation to social survey research involving data collection via in-depth interview or questionnaire.

Sampling means considering a part of a whole population. Bryman & Bell (2007) identified three reasons why researchers use samples: time, and cost convenience/accessibility. Saunders, *et al*, (2009) argue that researchers have to answer two questions in any sample survey: How should the sample be obtained? And, how large should the sample be? They suggest that there are basically two types of sampling: probability sampling, where each element in the population has an equal chance of being selected in the sample, and non-probability sampling, where not all elements have an equal chance of being selected. In this context Burns (2000) argues that “we cannot make any valid generalisation about the population from which the sample was drawn unless the sample is representative” (p. 83).

Burke and Larry (2005) consider that the main objective of sampling is to produce a representative sample that has similar characteristics to the population as a whole. Sampling is the scientific approach to getting data from part of the whole population; the selected samples must be representative in order to allow the researcher to generalize the research findings and results. In terms of this study, it was impossible to ensure that every element in the population had an equal chance to be interviewed/questioned, due to the large size of the

populations, the limitations of the research area, and the cost and time required. Due to the nature of the research and its approach, the purposive and snowballing sampling techniques were found to be the most appropriate for the study, which had the advantage of serving and meeting the research requirements.

Bryman and Bell (2007) have stated that with this type of approach to sampling the researcher is likely to make initial contact with a small group of people who are relevant to the research topic and then use these to establish contacts with others. Saunders *et al.* (2009) pointed out that the snowball sampling method is a common technique used when it becomes difficult to identify all elements of the population. Bryamn and Bell (2007) indicated that, this technique was used where was no sense in using random, because there is no way of knowing the accurate size of the population from which it would have to be drawn. This means there is no identifiable sampling frame for the population from which the sample has to be taken, and the difficulty of creating such a sampling frame means that such an approach is the only feasible one. Despite the potential problem with employing the snowball sampling approach; that it is very unlikely that the sample will be representative of the population, commonly, snowball sampling is used not within a quantitative research, but within a qualitative one.

As discussed previously, multiple sources of evidence (methods) were employed in this study to acquire rich, accurate and sufficient information, which was gained by using multiple stakeholders, Libyan government officials, institutions, national oil companies. To generalise the results, samples must be representative and the researcher made great efforts to ensure that the samples were carefully selected from different parts of Libya. The aim of this research required a selection of key stakeholders that would be an exact representation of the extensive population. Therefore, for this particular survey the sample size was derived from the four main categories within the Libyan population that were

identified as the main categories that could influence or contribute to the assessment.

6.9 Survey Questionnaires

A decision was made to use the direct door stepping questionnaire administration approach. An obvious advantage of this approach is to enhance the rate of return since the questionnaires were normally delivered directly by hand to the respondents and taken back immediately on completion. Although the original questions emerged from the literature review, as the local reality became more familiar, the researcher modified or created other questions during the fieldwork. A review of the data from the questionnaires was also useful for interview question modification.

Given the conciseness of each questionnaire, every question emerged from the literature review, and the researcher carefully scrutinized each one for its relevance to the research. The questionnaires were a powerful source of information, and were very helpful in the continuous evolution of the semi-structured interview questions. In addition, the questionnaires were used as a method of discovering diverse and interesting participants for in-depth interviews (Sanders, *et al*, 2009). A questionnaire may take many different forms (see the schedule below which provides an overview of the range of tools) due to the limited time for field study. In this particular survey the researcher has used the delivery and collocation approach, which is more likely to gain actual feedback for the survey.

According to (Sanders, *et al*, 2009), Questionnaires may take the form of:

Self- administered

- Mail postal
- Email
- Delivery & collection

Interviewer- administered

- Telephone
- Computer
- Structured interview

According to the literature review, this tended to cover the issues concerning the finite nature of oil reserves, with specific emphasis being placed on economic growth, development and diversification. The aim of the survey was to assess the possible contribution of the non-oil sector, (the other side of a single sector economy, which represents the narrow productive capacity) in expanding economic growth and accelerating the GDP. In particular, we assess whether or not the Libyan economy can be diversified beside the oil sector, further to exploring the positive side effects of diversification in reducing the risk and vulnerability of the international market. The survey was carried out in 2010 in Libya, and it was prepared in ways that would enable the respondents to understand what they were supposed to do. The questionnaires were only taken 25-30 minutes to complete, and most of the questions just required the respondent to select a box with their specific answer. Altogether, 300 hard copies of the questionnaire were distributed, and 240 were collected. A calculation was made using the equation below, showing that the response rate was 80%. When the researcher had received the entire questionnaire back, a number of different processes were carried out to analyse the data. First of all, an expert was consulted about how to use SPSS (Social Package for Social Science) and find out how the data should be coded and analysed. The variables from each question were then entered into SPSS individually. To analyse the data descriptive and likely statistical processes were used.

$$\text{Response rate} = \frac{\text{total number of response}}{\text{total number in sample}}$$

Table 6-1: Questionnaires survey response rate:

	No	%
Total sample distributed	300	100
Non response	32	0.10
Total received	268	0.89
Usable	240	0.80

6.10 Gathering Primary Data by Conducting Interviews

The interviews for this study took place in Libya. Face-to-face in-depth interviews were conducted with twelve total administrators and other professionals in Libya's government officials and local authority, and other professionals between 15 of September and 12 of December 2010. These people were considered to be more knowledgeable in the area, which meant that their opinions would be accurate. All of the interviews were conducted in a natural setting; in the participants' office, during working hours. The researcher asked the participants whether they would agree to tape record the interview, or if they would prefer to write their answer. The researcher had planned to record the interviews, but it came to light that many of the participants would only take part on the condition that the interview was not recorded so therefore written notes were taken instead. At the start of the interview, the researcher introduced himself and outlined the purpose of the interview and reassured the interviewee that they could talk about things in their own time without the interviewer interrupting. The choice of interviewees was determined by the availability of the interviewee, after an appropriate appointment was made with a range of interviewees seeking their viewpoints (e.g. relevant Ministries, Universities, and national oil companies) with the aim to identify the key issues affecting Libyan economy, and a short discussion was held regarding the research. After the completion of the interview the researcher drafted the answers so that they could be sent to the participant to look at so that they could give feedback about any of the content.

6.11 Field Implementation

The research aimed to investigate the real difficulty of oil wealth, and to find an alternative solution for the issues mentioned in earlier chapters, and encourage Libya to overcome them by analysing the opinions, and perceptions of representatives. Since Libya is an oil exporting country, it faces serious economic issues, which are observable in low the economic growth of the non-oil sector, and the lack of diversification the productive base.

The literary data collection was followed by personal contact interviews with a survey based on a questionnaire. The aim of the survey was to actualize the outlook of the situation formed by the data collection and to become acquainted with the opinion of the interviewee. According to (Saunders, *et al*, 2009) in-depth interviews provide the researcher with the opportunity to ‘probe’ answers where you want to explain, or build on, their responses. Interviewees may use words or ideas in a particular way, and the opportunity to probe these meanings will add significance and depth to data obtained. They may also lead the discussion into areas that had not been previously considered but which are significant for your understanding, and which help you to address research question and objectives, or indeed help you formulate such a question. Interviews also afford each interviewee an opportunity to hear themselves ‘thinking aloud’ about things they may not have previously thought about. The result should be that you are able to collect a rich and detailed set of data (p. 324).

The target population was divided into four main categories involving;

Academic Community: The first group to be interviewed will be academics professors’ economics senior lectures, and researcher students, in particular postgraduate level (Masters, and Doctoral students). These were interviewed at leading Libyan Universities and academic institutions such as Tripoli University, High Academy of Postgraduate Studies, that are involved in

economic policies related to diversification and therefore priority was given to those who were dealing with the issues of sustainable development, and economic growth in order to gather real information regarding the likelihood of Libyan to achieving greater and more successful economic diversification.

Government Officials: This group were practically considered for the study, as they are in policy maker's position of initiate and commit resources that could have an impact on economic growth. This second group which the research targeted required the members of Libyan Government offices and related agencies, for instance:

- General Council of planning,
- Libyan Economic Development Board (LEDB)
- Ministry of Planning.
- NOL (Libyan Oil Corporation)

Business Community: This will be question the Chief Executive Officers of private business, and public institutions as well as the international companies, who are doing business in Libya, in particular the successful sectors in economic development, such as tourism, finance, service, and FDI foreign business. As well as local businesses (e.g. local Banks, small and medium enterprises), that have foreign links or joint ventures with the Libyan government.

Advisory Body: Group four comprised people who are responsible for setting the diversification of productive bases as a high priority in the economic agenda, and the most essential in government policy for instance NEDB (National Economic Development Board).It was important for the sample to cover government officials, the non-oil sector and businesses. These representatives were chosen based on their critical roles and their essential contributions to their organizations as policy makers, management and experts in the field under study.

Table 6-2: Overview of Data Collection Plans

Category		How many?	How data is collected?	Location
G1	Students, Postgraduates level (Masters & PhD)	Sample size of 300-350	Questionnaires	Leading Universities (Tripoli University + Academy of Graduate Studies + Higher Institute of Planning).
G2	Senior Officials of Libyan Government	10-15	Questionnaires & In-depth interview/face – to-face	Faculty of Economics (University of Garyounis, Benghazi & Research Centre For Economic Sciences
G3	Domestic Business (both public & Private)	5-10	In-depth interview/face-to-face	Relevant Ministries, State organisations, Tripoli
G4	National Economic Development Board,	5-10	Held via In-depth interview/face-to-face	Tripoli

6.11.1 Pilot Study

In preparation for these interviews, a set of questions was developed as a result of exploring the literature, various other documents, and the pilot study, was directed to students' and academic holders and other government officials from the of Libyan Economic and Development Board. The main objective of the pilot testing was to refine the questions, and ensure that the respondents would not face any difficulties in answering them, and that there would be no problems in obtaining the needed information. In addition, it allowed an assessment of the questions' validity, and reliability and enabled investigative questions to be answered for preliminary analysis (Greener, 2008; Saunders, *et al*, 2009). This approach was very helpful for two main reasons; first, to obtain the highest possible response rate and minimise the difficulties in answering the questions. Second, to estimate the time required to get a response and to ensure understanding. In addition, a positive outcome of pilot the testing was that some

small confusion in some questions were found and amended, phrasing then improved and new questions were developed. Whilst carrying out the interviews, the researcher aimed to cover topics that are not normally easy to study; this was done by the use of open ended questions. The interviews with the Libyan government officials covered five themes (see Table 5.3).

One of the essential tasks in preparing for the in-depth interview is determining the themes of the research that the interview will cover. This focuses both the interviewer and the interviewee in order to accomplish the objectives of the study. The main themes that are explored in this study are summarised as follows:

Table 6-3: The Structured face-to-face Interview Themes

No	Theme title
1	The potential prospects of diversification to decrease the heavily of dependency of hydrocarbon sector.
2	The capability of non-oil sectors to fulfil the objective of promoting economic diversification.
3	The new trends desired in the non-oil to raise the relative share of growth and generate employment.
4	Policy challenges of Libyan government to establish possible means of sound and effective economic performance.

Saunders, *et al.* (2009) outlined that carrying out qualitative interviews should give the researcher the opportunity to gather valuable and reliable data, however the researcher needs to be confident in interviewing as it can be hard to uncover information from the participants. The type of interview used should be based on the aims of the research. There are two main types of qualitative interviews; these are; unstructured and semi-structured. Interviews can be carried out to discover information about certain subjects. In this research, face-to-face interviews were carried out with one participant at a time; only the interviewee and the researcher were present. Qualitative research interviews were chosen for this research for the following reasons:

1. Qualitative interviews should be used when the study is of an exploratory nature. They help the researcher to identify causal relationships, if any, between different variables. They also help the researcher understand the reasons behind the participants' feelings. Moreover, in-depth information can be gathered because the researcher can delve further into topics and may perhaps bring to light issues that had not been thought of.
2. The interviews conducted are based on the type of questions that will be asked. If there are a large amount of questions then the order has to be considered.
3. Participants will normally prefer to take part in an interview rather than to fill in a questionnaire and even more so if the topic to be interesting and relevant to their current work. Participants can also gain feedback from the interviews and can be assured face to face that the information will remain confidential. As a result, there will normally be more people willing to take part (Saunders, *et al*, 2009).
4. It is easier and less time consuming to form an in-depth interview schedule than make a questionnaire, because it has to account for answers that may be complex.
5. Interviews are likely to produce more in-depth data, this is because the interviewer can delve deeper into certain issues as and when they arise in the discussion. Moreover, the participants can air their views more easily and stress areas of importance. Data is more reliable and accurate as it can be checked whilst the participant is present.
6. Interviews are more personal than questionnaires and some participants may enjoy the fact that they can discuss their feelings and experiences with someone who is genuinely interested.

6.11.2 Interview Validity

It should be borne in mind that despite reliability and validity being analytically distinguishable, they are related because validity presumes reliability. This means that if the measure is not reliable, it cannot be valid. Before the interviews were conducted, the questions and methods were examined by an expert who gave valuable insight into the importance of having government strategies as a focal point, and the difficulties that can arise in carrying them out. Moreover, to ensure that the methods being used were appropriate, the methods were shown to a panel of experts on the Libyan Economic and Development Board, and then two pilot interviews were carried out. The researcher was then reassured that the interviews would go according to plan. A copy of the interview questions was presented, and careful consideration was given to providing us with as much information as possible, and a meeting was then arranged for further discussion. The duration of the interview was varied with the interviewee. For instance, the interview with the senior official of the NPC (National Planning Council) lasted roughly one and a half hours, while the interview with one economic expert at RCES (Research Centre of Economic Studies) lasted one hour and twenty minutes.

The qualitative research includes multiple sources of data, thus language hindrances would cause a significant impact to the overall credibility of the research. Fluency in a different language, for instance Arabic, made it easy to complete the survey without too many obstacles. However, the transcribing of interview answers and observation notes from a different language into English was a difficult task for the researcher during the interview process, which took ample time. The researcher aimed for minimal deviation away from the interviewee's original meaning, therefore the researcher has made every possible effort in order to ensure the translation into English was correct and accurate. This was done to ensure the validity of the research, which is an imperative problem at PhD level.

6.12 Qualitative Data Analysis of Content

Analysing the data is an essential task at this stage, so, as this research is qualitative, it is necessary to look for appropriate data analysis techniques in order to gain useful information. Therefore, the researcher was concerned with how to analyse the required data as the first stage of this study. "Qualitative content analysis is most often used to analyse interview transcripts in order to reveal people's information related behaviours and thoughts" (Zhang & Wildemuth, 2009:3). The features of qualitative research are seeking a depth of understanding that is distinct from quantitative research. For instance, conducting an interview is a strong approach for data collection, because it provides an opportunity to ask for clarification if the answer to the question is vague. In support of the questionnaire results conducting such interviews were an important means to entirely understand respondents' actual beliefs, and consequently understand the research problem, and in addition, contribute to the validity of the research hypotheses and thus, achieve its objectives (Saunders, *et al*, 2009).

Therefore, the study focuses on the text itself and the content of the dialogue which is relevant to the topic and answers the research questions. Qualitative content analysis can be used to analyse diverse types of data, however generally the data needs to be transformed into a written text before the analysis can start. If the data comes from existing texts, the choice of the content must be justified by what we need to know (Zhang & Wildemuth, 2009:3). The interpretative technique, in a manual form, was used to analyse the data gathered from the interviews. Bryman and Bell (2007) describe this technique as "a strategy that respects the differences between people and the objects of the national sciences and therefore requires the social scientist to grasp the subjective meaning of social action" (p. 13). This was the main reason why this approach was taken, since this approach aims to help the researcher understand the data through a summary of the raw data's main points. So that this could be done, the

researcher read over the interview responses several times so that all the information could be identified and so that the main issues could be coded. After the responses had been read many times the similarities and differences between responses were apparent. The codes were then used to create themes.

6.13 Limitations of the Field Study

As mentioned earlier, which was explained this approach in the methodology chapter, seems to be appropriate for the purpose and application of this study. However, there were some impediments which should be put forth that might have deviated the research away from reaching its ideal goal. These constraints can be explained in detail as follows;

Most of the interviews were through face-to-face which may have resulted in more contact and possibly, therefore, the unwillingness of interviewees to confide their personal views to the researcher. The high cost of travel between Tripoli in the West to Benghazi in the Far East, may have adversely affected the research, and the researcher could not spend enough time in the Libya to interview/questioned more people. Since those are the main cities they have more skilled persons and leading Universities, and are important areas which couldn't be overlooked during the period of field study. In addition, unavailable participants' views were not included, and thus their opinions could not be considered for the research findings.

6.14 Conclusion

This chapter has summarized the overall research methods adopted, the design used, research strategy, and research philosophy. During the field implementation of the study the chapter also illustrated the group population in terms of sample size, selection and the data collection approach. The main aim was to tackle the research question addressed in the Chapter one, and therefore to determine the most appropriate methodology that met the research objectives stated. In addition, this Chapter has also briefly explained the technical tools which were used for data the analysis such as descriptive statistics for the questionnaires, and interpretive content analysis for the in-depth interviews. It has been highlighted that for the questionnaires and interviews to be employed with an academic and government and related authority representatives. The subsequent chapter provides the outcomes of the research conducted with four categories of target population.

Chapter 7: Data Result and Analysis

7.1 Introduction

The main aim of this chapter is to present the findings gained from the field study undertaken in Libya. There were four main categories within the target population that were recognized, as they could influence or contribute to the prospects of Libyan economic policy establishing diversification. A survey was planned to generate their insights, knowledge, and their level of consensus with regard to Libya possible turning away from its total oil reliance. The chapter covers two main parts. The first part will describe the quantitative results of the data collected through the questionnaires. The second part of the chapter will analyse the qualitative results of the data, which was gathered from in-depth personal contact interviews. Prior to the previous chapters the researcher gained an understanding of the seriousness of some of the issues likely to confront the Libyan economy in the long term. In particular, it has been identified that a critical policy adaption is needed in order to avoid the adverse effects that will be experienced owing to oil depletion over the next few decades. This survey was conducted to gauge the public awareness of the issues discussed in the previous chapter, aiming to obtain an indication of whether the prospects of Libyan economy can be sustained in long run. This will depend on the success or otherwise of diversification attempts in order to decrease the absolute cycle of dependency on oil sector, and promote non-oil activities to fulfil the objective of sustainability.

A Descriptive Analysis of the Perceptions

After this brief introduction, part one consists of items requesting demographic information such as age, gender, level of education, and work experience, including what different positions they have held in their institutions. Most respondents were occupying high level positions in both the public and private sector. Part two canvassed representatives' views on their awareness regarding the current situation of oil domination, and factors that impact directly upon oil resources, for instance, degree of vulnerability to price fluctuations, oil resource depletion, and inability of oil to provide job opportunities, and the negative effects those factors may cause on rate of growth. It contains items related to various choices that will help the Libyan economy to beat these issues. Part three required the respondents to specify the actual current situation of performance non-oil sector. Further information was provided by respondents identifying the new trends desired to promote non-oil sectors. Part four contains the data concerning the future prospects of diversifying the domestic economy, taking in to account the significant economic effect to improve the economic performance, one of which is the approach a country like Libya should follow. Finally, the fifth part presents the feasibility of sustainable national economy, and job creation of favoured activities, with specific emphasis on the potential of the tourism, and SMEs, sector as alternative avenues to creating sufficient job opportunities. In order to make possible descriptive (the descriptive and normative nature implies that the researcher considered the subjective views, opinions and meanings of the social actors) of feedback data obtained from respondents in relation to the critical factors stated above. These data outcomes were derived from the Statistical Packages for Social Sciences (SPSS) software, and are displayed in a number of tables and graphs. The data was analysed and descriptive statistics used to compute the mean perceptions of respondents as well as express results in simple percentages and frequency.

7.1.1 Part One: Demographic Details (General Characteristics)

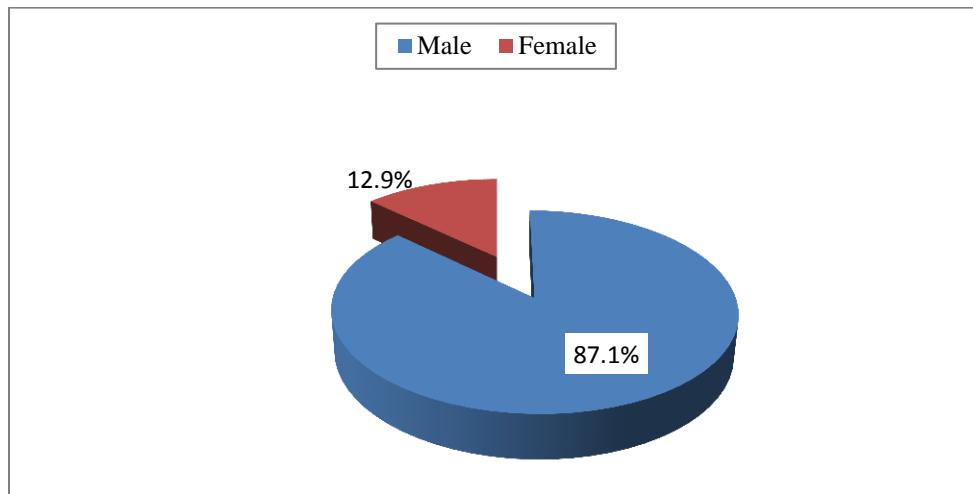
Seeking to broaden the sources of information, this part of the survey is dedicated to providing descriptions of the respondents' features, and establishing details regarding their gender, age, academic qualifications, job experience, and position description. The researcher aimed to find out more about attitudes, values, motivation, personal qualities and interpersonal skills, and to put forth a relevant thoughtful of their ability of knowledge.

Table 7-1: Demographic Information of the Respondents

Items	Category	Results	
		Frequency	Percentage
Gender	Male	209	87.1
	Female	31	12.9
	Total	240	100
Age Group:	Under 30	16	13.4
	30-35	79	32.9
	36-45	81	33.8
	Above 45	64	26.7
	Total	240	100
Level of Education	Post grad Diploma	56	23.3
	Master Degree	96	40.0
	PhD	88	36.7
	Total	240	100
Job of Experience	Less than 5 years	75	31.3
	5-10 years	51	21.3
	More than 11 years	82	34.2
	None	32	13.3
	Total	240	1005
How would you describe your position within the institution/company?	Senior lecturer	129	53.8
	Policy Advisor	44	18.3
	Policy Makers	33	13.8
	Government Managers	26	10.9
	Others	7	3.0
	Total	240	100
How can best describe your employment?	Private sector employee	8	3.3
	Government employee	173	72.0
	NOC-Libya	15	6.0
	University students	45	18.7
	Total	240	100

Source: field study, Libya 2010.

Figure 7-1: Gender of the Respondent



It is apparent from the Figure 7.1 illustrated above that a large number of respondents in this survey were male, equalling 87.1% of the total sample, this reflects the fact that females were less interested in expressing their views, and many were hesitant/reluctant to take part, they accounted for only 12.9% of total sample. The predominance of men in the sample is reflects the fact that females were less inclined about this subject, and were not convinced to participate. Males were more confident than females in regard to sharing their feelings and thoughts in terms of the level of satisfaction to participate, which make it easier to approach males to get involved in the assessment.

Figure 7-2: Age Group

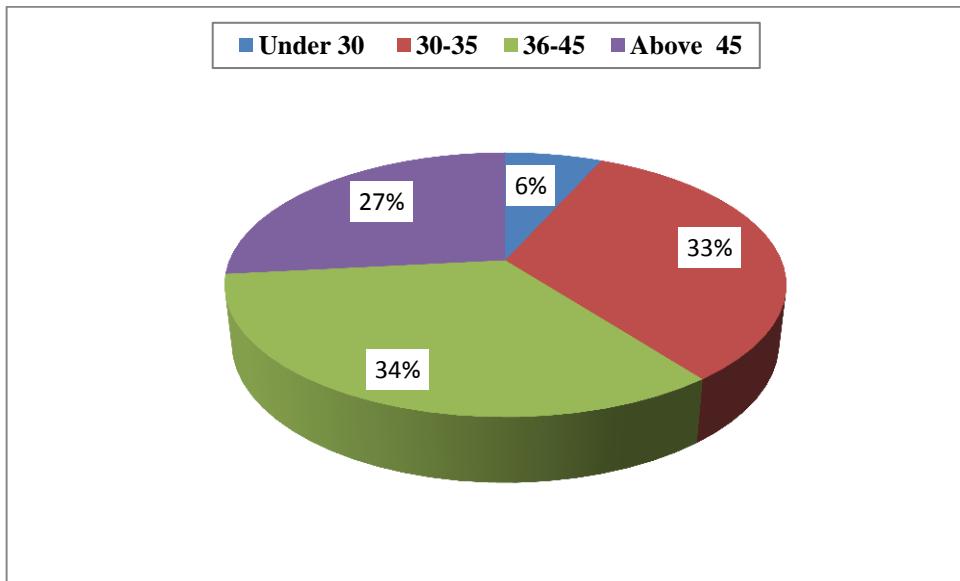


Figure 7-3: Level of Education

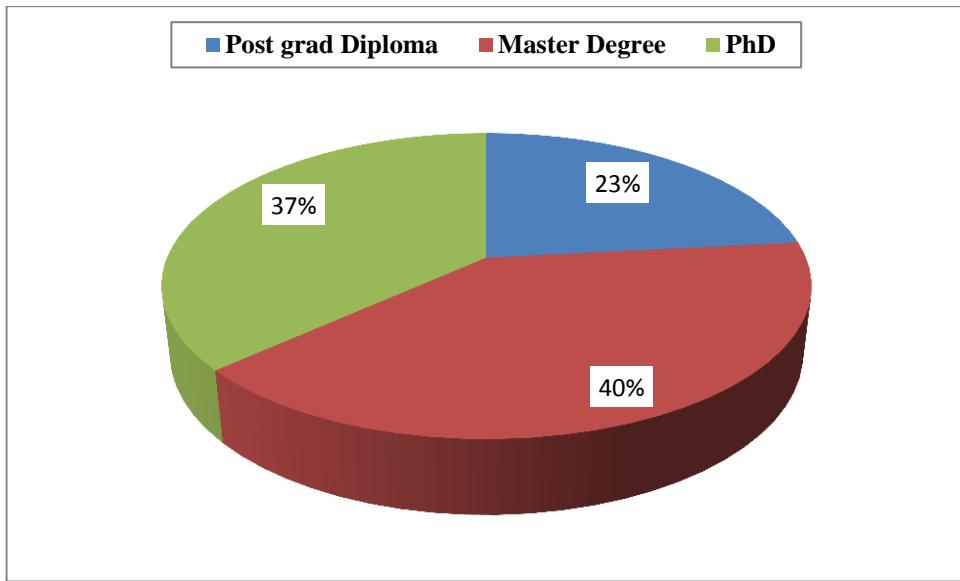
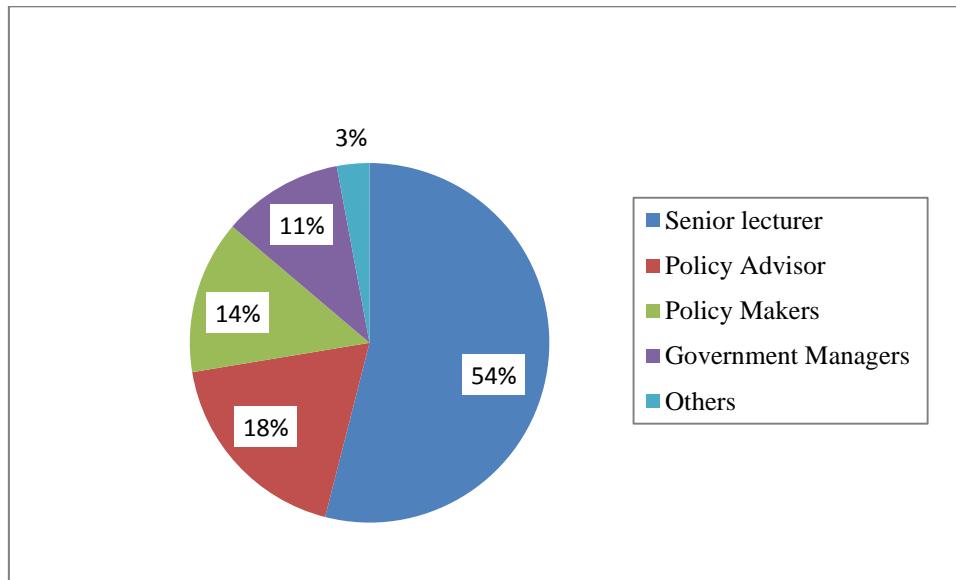


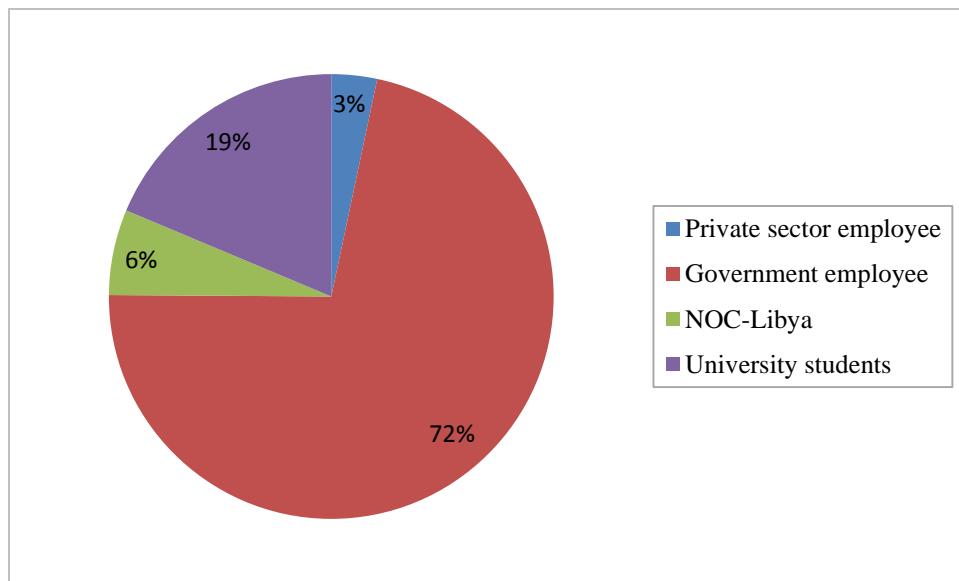
Table 7.1 shows that respondents covered different ranges in terms of age, and a large number of sample ranges between 30 and 45 years of age. As can be seen from figure 7.2, 32.9% of respondents were below 40 years old. This is due to this age group's involvement and knowledge on the topic. The educational background of respondents was also surveyed, revealing that respondents are well sufficiently educated to understand clearly the questionnaire survey. The vast majority of respondents had good level of education, and were well qualified, giving a total number of 23.3% of respondents holding postgraduate Diplomas or equivalent certificates, and 40% having MA or MSc qualifications, with 36.7% of respondents at the higher degree level of PhD, see figure 7.3. This indicates that sample is more likely to hold views which are valid and reliable. Thus, these findings were the outcome of our intention to bias the sample towards well educated and more qualified people.

Figure 7-4: Occupational Status of Respondents within Institution/Company



Questions four and five of the survey were developed to illustrate the practical experience of the representatives concerned, with regard to different fields of work, and whether the participants had more relevant information based on the length of their job experience and proficiency. The results indicated that most of respondents of the questionnaire were from different backgrounds, and held different positions in their institution/company. It is apparent from the data result exemplified by Figure 7.4 that 54% were senior lecturers, who represented the highest rate of respondents who took part in the survey, 18%-14% were either policy makers or advisers Figure 7.4. This is most likely reflective of the fact that their views were more relevant to the area under study.

Figure 7-5: Respondents Organization



Merely 3.3% of the total respondents were employed in the non-oil private sector as Figure 7.5 illustrates, whereas 72% of respondents stated that their current employment was in the public sector (government employee). This outcome is indeed reflective of the fact that the largest number of national workers in the government sector has dominated the sample. It is evident from

figure 7.5 that most of the respondents were employed in the public sector as heads of administration in their relevant institutions, or heads of departments during the period of the survey. A small number of respondents (i.e. 6%) were engaged in the National Oil Corporation, the main ownership of national oil companies.

7.1.2 Part Two: Oil Dependency, Degree of Susceptible to Certain Factors;

This was reflected mainly in seriousness of:

- a. Oil revenue being highly volatile due to its sensitivity to the global economic situation. If oil prices fall, oil revenues will be less, thus there would be no finances available for funding. Any significant negative fluctuations in the oil prices thus have the potential to destroy as much as 30% to 60% of the country's GDP⁵.
- b. The amount of oil resource in the ground is finite because they are formed by extended geological processes and cannot be easily replenished. If all the revenues obtained from oil were to be consumed, this perhaps would leave less wealth and lower consumption for future generations, and cause a continuous reduction in the size of oil proven reserves that would eventually lead to them becoming depleted.
- c. The inability of the oil sector to provide a sufficient amount of job opportunities for rapid population growth.

Accordingly, attempts have been made in this regard to analyse respondents' viewpoints and thoughts through the identification of serious issues facing the domestic economy; notably key macroeconomic variables and the dynamic

⁵ Drops of oil prices in the 1985, 1998 have already brought this fact home, and drove the point that oil could be an important resource for economic development but may not last forever.

response of these economic variables. Most of the questions asked involved selecting a specific answer from a list provided.

Table 7-2: Seriousness the Unpleasant Impact of Oil price Changes on Growth

		Frequency	Percent	Valid Percent
Valid	Severe	114	47.5	47.5
	Moderate	66	27.5	27.5
	Minor	38	23.3	23.3
	Uncertain	12	5.0	5.0
	Total	240	100.0	100.0

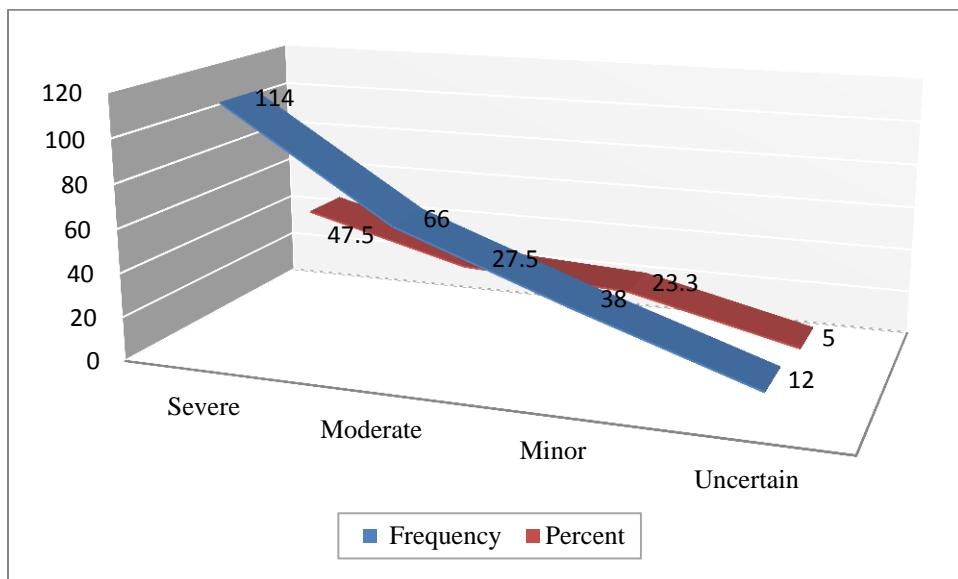
Source: field study, Libya 2010.

It is apparent from Table 7.2's results, that consensus about the economic health of Libya believes that the economy depends significantly on oil assets as a national source of wealth, which is however also a main cause of economic uncertainty. As they underscored, this constitutes the most noticeable reason for seeking greater economic diversification. An indication this was the large number of respondents' (47.5%) who believed that oil price fluctuations would have a severe effect, and 27.5% who indicated the effect would be moderate on main components of national income (e.g., output, investment, government spending, and exports). These factors move in tandem with oil prices, thus making the performance of the national economy weak. This implies that any changes in oil price would directly affect the public budget fund and income, especially if the oil prices drop in the global market in real terms, which represents the main source of finance for the government budget. Their suggestions attributed some source of concern in this respect to:

- i. The level of oil demand weakening due to new or cheaper alternative types of energy.
- ii. The oil global supply increasing because of new discoveries in non-OPEC member countries.

- iii. New technological inventions for oil exploration would lead to an increase in the amount of extraction.
- iv. Since all the crude oil trade is conducted by US\$, the value of oil proceeds may be adversely affected by the US\$ weakening.

Figure 7-6: Seriousness of Risk Oil Prices Changes



However, indications of the uncertainty of respondents regarding the impact of oil prices instability was evident from the response rate of 5% in this category (see Figure 7.6), because the price of oil is difficult to predict due to the interaction of economic, political, and technological factors in determining its trend. Hence, the current global crises have demonstrated the negative impact of oil dependency subsequent to the collapse of its prices, and the difficulty of predicting its stable levels. There is an indication in the debates that Libya is strong financially at this juncture and that this opportunity must not be taken for granted as the falling oil price and weakened world economy has proved so dramatically of late.

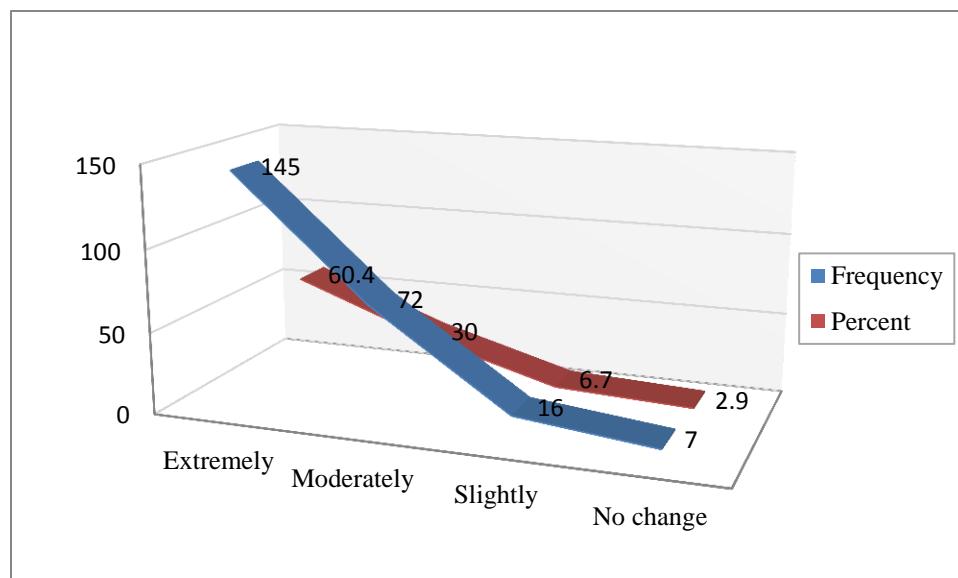
Table 7-3: Perceptions on the Awareness of oil Resources Depletion

		Frequency	Percent	Valid Percent
Valid	Extremely	145	60.4	62.9
	Moderately	72	30.0	30.0
	Slightly	16	6.7	6.7
	No change	7	2.9	2.9
	Total	240	100.0	100.0

Source: field study, Libya 2010.

One of the main economic objectives of diversification is to increase economic abilities which can sustain prosperity once oil resources have been totally depleted. Table 7.3, this specific question was created to seek representatives' points of views on seriousness of the depletion of oil resources. A total of 60.4% (Figure 7.7) of respondents rated that finite oil resources would be an extremely serious problem in the next few decades. This put forward that after certain stages oil would become a finite source which may cause varied results in the national economy, notably lowering the wealth of the country, and making the country poorer, due to oil resources not being renewable.

Figure 7-7: Perception on the Awareness of Oil Resource Depletion



Respondents indicated that although oil resources are falling substantially the government's effort to prepare for the projected depletion of oil resources remains poor. Unless the oil demand declines considerably, Libya may reach its oil peak production very soon. As far as Libyan oil resources are concerned, with greatest global oil demand there would be significant negative prospects for future economic growth if the country continues to use oil more intensively, and a large share of its economic growth (more than 60%), is being driven by oil. To prepare for this time, the country has two options. The first choice is to continue down the current path. This path will lead to more than a 60% drop in GDP when the oil runs out, with the associated social problems and dissatisfaction that this will cause. The second path is to take measures now that will lead to a more diversified, so that when Libya's oil wealth is depleted, the drop in GDP is far less dramatic.

Table 7-4: Perceptions on the Efficiency in State Spending of Oil Resource Allocation

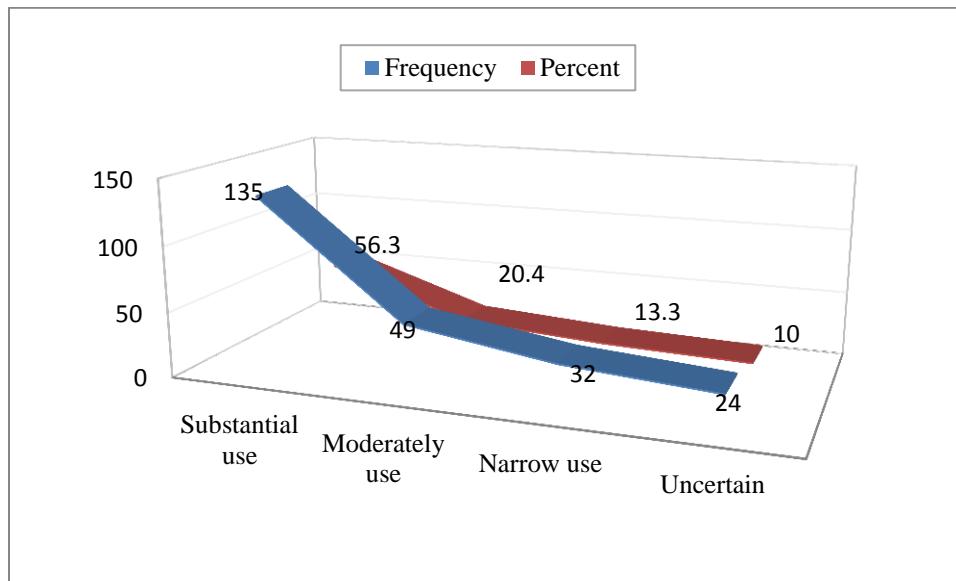
		Frequency	Percent	Valid Percent
Valid	Substantial use	135	56.3	56.3
	Moderately use	49	20.4	20.4
	Narrow use	32	13.3	13.3
	Uncertain	24	10.0	10.0
	Total	240	100.0	100.0

Source: field study, Libya 2010.

Using four level scales ranging from “substantial use” to “not certain”. Respondents' were asked to assess the best rate of re-allocation of oil rents to be utilised and allocated in order to ease excessive government spending to be directed towards economically non-productive activities e.g., generous subsidies. The primary results illustrated in Table 7.4 show a response rate of 56.3% for

the optimal use of oil revenues by allowing for more efficient allocation of resources across economic sectors in the face of greater uncertainty. Thus, if the rate of oil extraction is surrounded by uncertainty (10%) Figure 7.8, part of the oil proceeds will need to be saved and converted into non-oil assets. 13.3% of respondents' were more in line with the overall sample response with regard to the level of oil allocation being only "slight used". A small rate of respondents' (20.4%) believes that "moderate use" would be appropriate. Perhaps, the most important finding which emerged from the above answer is that respondents are extremely conscious of best use of the oil resource, and of the seriousness of the problem associated with the likely ultimate finiteness of oil resources. From the public awareness perception, Libya has pursued short-sighted, suboptimal policies for extracting resources and capturing rents, and the government allocates those rents in ways that often privilege elite private consumption rather than public investments that enhance growth. The high level of government expenditure may means that the public savings are insufficient. In order to ensure adequate usages of oil proceeds the level of extraction should be less than a certain fraction. That is to say, Level of spending must be less than a certain proportion of such proceeds to ensure sufficient savings for the above mentioned objective: the shorter time horizon to the end of oil rents.

Figure 7-8: Suggestion on the Optimal Allocation of oil Revenues



Open Ended Question

In this part of the survey, respondents were asked to give their insights on the important need to mitigate the dominance of oil. This involved selecting from a list of specific answers which provided, with the aim of collecting further feedback in the form of suggestions on what was the main problem leading to not achieving this objective. It is clearly acknowledged that the vast majority of respondents' considered that misguided policies had been pursued, and weak government institutions were the main causes, attributing this to the small amount of diversification efforts implemented by the government and the poor contribution of the non-oil sector to the GDP. This suggested a substantial thought and awareness of the necessity of carrying out concrete and effective policy reform.

Other respondents have identified the underdeveloped private sector due to the dominance of the public sector in most economic activities, and lack of necessary skills to invest in training national, owing to the bad planning of oil

management. As an overall perception, respondents' assumed evident strategies and plans has to be established, with certain timelines for the accomplishments of this goal, in order to reduce oil dependency. From this response, it is clear that among the respondents' perceptions there is willingness to consider and support significant policy reforms that would help the Libyan economy to better prepare for future less dependence on oil.

7.1.3 Part Three: Perceptions on the Actual Economic Performance of Non-Oil

Libya as an oil dependent country, faces crucial economic problems which are reflected in sluggish economic growth (for more details see chapter four), weak performance either in terms of their narrow capacity of productive, and contribution the GDP, and being at a low level of growth. In view of that this section seeks to explore the nature of the problem which led to an ineffective non-oil sector, by surveying the respondents' viewpoints, which may possibly help Libya to overcome this situation. The researcher also attempted to see to what extent the government has to give support and effort in order to accelerate the rate at which non-oil production and services can grow.

Table 7-5: Perceptions on Actual Status of Economic Performance in Non-Oil Sectors

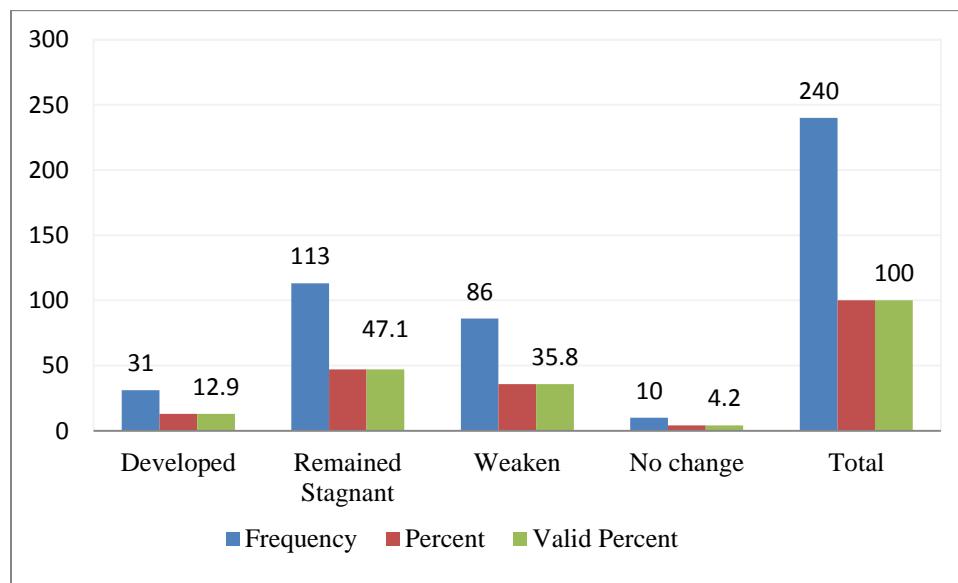
		Frequency	Percent	Valid Percent
Valid	Developed	31	12.9	12.9
	Remained Stagnant	113	47.1	47.1
	Weaken	86	35.8	35.8
	No change	10	4.2	4.2
	Total	240	100.0	100.0

Source: field study, Libya 2010.

The main outcome which can be interpreted from respondents' answers presented in Table 7.5 is that almost 47.1% indicated that non-oil sectors remained 'stagnant', despite the state having made some efforts to develop a non-oil economy. As indicated by respondents' revealed that in the past decade the non-oil sector has not made any significant contributions of up to more than 15% of GDP, which implies its poor role

played in enhancing the Libyan economic growth. Thus, its small fraction of GDP growth is mainly explained by inadequate private investment and low productivity. There have not however been any improvements made to substantially reduce the dependency on oil proceeds. Despite non-oil sectors growing steadily in the meantime, this did not contribute in any important form to developing an income based on diverse resources. Their main perception indicates that the non-oil economy is mainly driven by government expenditures, and its share in the GDP is falling while the oil economy expands.

Figure 7-9: Performance of Actual state of Non-Oil Sectors



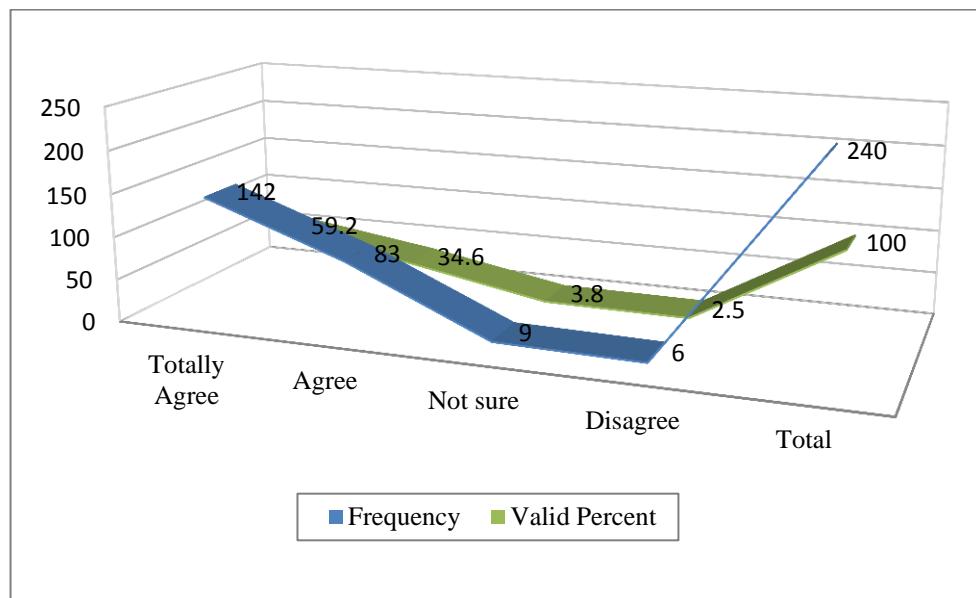
Therefore, their performance remained underdeveloped and poor over recent periods. While a few respondents (i.e. 4.2%) have chosen ‘no change’ 12.9% indicated that non-oil performance was developing. Despite the government having made considerable efforts to diversify the economy away from oil, the sectors in general performed poorly and inefficiencies went unchecked, almost 35.8% of respondents have rated their country’s economic performance in the non-oil sector as ‘weakening’, as Table 7.5 has shown.

Table 7-6: New Trends Desired to promote the Non-oil with a View to Future Economic Diversification

		Frequency	Percent	Valid Percent
Valid	Totally Agree	142	59.2	59.2
	Agree	83	34.6	34.6
	Not sure	9	3.8	3.8
	Disagree	6	2.5	2.5
	Total	240	100.0	100.0

Source: field study, Libya 2010.

Figure 7-10: An Indication of new Trends Desired to Promote Non-oil



The weakening growth in Libya's non-oil sector comes due to the many structural limitations to investments. Respondents, as indicated in Figure 7.10, were totally agreed rating 59.2%, while 34.6% agreed indicating that an optimal option for Libya to finance its economic activity is by invest in non-oil sector; i.e., diversifying into other form of productive sector. It is obvious from the response that due to this, the sector has not been given much attention in the past. Therefore, there is willingness among them to put into account the

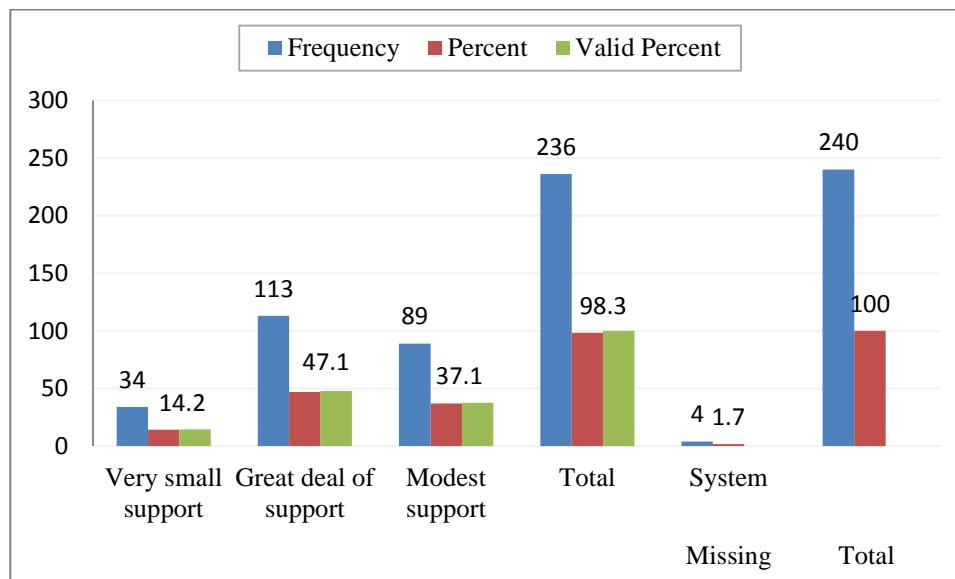
important role played by non-oil economy that would help Libya towards better economic performance, and job creation.

Table 7-7: Suggestion on the Government Initiatives and support of Domestic Non-oil with a view to future broad-based Economy

		Frequency	Percent	Valid Percent
Valid	Very small support	34	14.2	14.4
	Great deal of support	113	47.1	47.9
	Modest support	89	37.1	37.7
	Total	236	98.3	100.0
Missing	System	4	1.7	
	Total	240	100.0	

Source: field study, Libya 2010.

Figure 7-11: Perception on the role of State



In Figure 7.11 respondents' agreed (in a given response rate of 47.9%) that the government has to play a “great role of support” or “above modest support” (37.7), should be given to support non-oil business, for the aim to accelerate the economic diversification process. Only a few of respondents (14.4%) suggested

that “small government support” should be given to local non-oil sectors. It would seem that even with substantial government support, the performance of non-oil was generally poor, because the importance of economic diversification has not been realised in the past. Since the non-oil sectors have performed poorly, most of the respondents involved believed that there is an urgent need for a great deal of government support has to be provided to assist non-oil, indicating towards some suggestions in relation to the form that government support should take. The next open-ended questions were structured to evaluate the respondent’s personal views in this regard which aimed at helping to develop the non-oil sector.

Open-Ended Questions

In response to the open-ended question, suggestions were made regarding the most likely non-oil sectors to be targeted and prudent policies to be implemented. According to their suggestions, the responses can be classified into two main categories. The first open-ended question concerned the long term economic policies that respondents believe their country should pursue if it intends to reduce the dependency on oil. The respondents’ suggestions according to their main concern selection were as follows:

- 1- Establish vibrant private sector: most of respondents believed that improving domestic private sector confidence in the country’s legal institutions could enhance growth and wealth as an imperative long term policy, but this is restricted by an oversized and inefficient public sector.
- 2- Improve intra-regional trade: many suggestions were evidently aimed at encouraging and developing local business by creating free trade zones to expand the size of the local market in order to enable local business to achieve economic of scale in production.
- 3- Building up human capital: there was also awareness among the respondents in terms of the lack of trained and good quality human

capital, indicating that increasing the level of scientific education, and investing in research and development, would ensure that all national populations were fully productive.

- 4- Other respondents were mainly interested in increasing the institutional quality capacity, by giving more flexible regulations to the role of the government. Creating institutions to promote market force, for instance, property rights.
- 5- Develop adequacy in infrastructure: Libya's relatively poor infrastructure, have posed impediments to foreign investment and to economic growth. Participants have made clear that adequate physical infrastructure is needed in many areas, in order to provide sufficient support to investors and the whole society for development in direction.

The second type of open ended questions were structured in order to allow respondents to make their own suggestions and comments; they aimed to gather personal perspectives with regards to classifying which was the most likely of the non-oil sectors to offer unique opportunities to generate great potential growth rates and maximize job creation. In addition, which one of these sectors has to be given priority? And what areas should be targeted in developing domestic economy? Respondents' have identified the potential non-oil sectors therefore; they have been ranked depending on the selection priority in terms of their comparative advantage, and economic added value as follows;

- By ranking respondents' priorities and preferences, tourism was suggested as the most important sector to diversify the domestic economy and creates a wide range of job opportunities.
- Expand the banking and financial system ranked a second significant sector expected to enhancing non-oil economic performance.

- allow greater foreign direct investment (FDI) received a substantial preference in both production and services in particular investing in Small and Medium private Enterprisers,
- Transit trade,
- ICT and construction.

On the whole, respondents agreed that these sectors could play crucial role in enhancing the domestic economy and speeding up the rate at which non-oil can grow, which ultimately leads to the minimising or phase-out of the domination of the oil sector in most economic activities. In addition, economy based on services and knowledge was seen by participants as important for actual sustainable growth.

7.1.4 Part Four: Libya's Economic Diversification Prospects for Sustainability

Libya is a good prospective country for diversification, and the potential for developing the non-oil sector is also good. Its oil revenues offer a unique opportunity to effectively use other forms of wealth that can provide lasting earning for Libya's people, social welfare, and sustainable economic growth. Some countries have recorded success in developing their economy through economic diversification and promoting non-oil is seen to play a significant role in many declining economies as seen in the literature review. The aim is to establish respondents' perceptions in relation to diversifying the Libyan economic base which is expected to improve the Libyan economic situation for the better through:

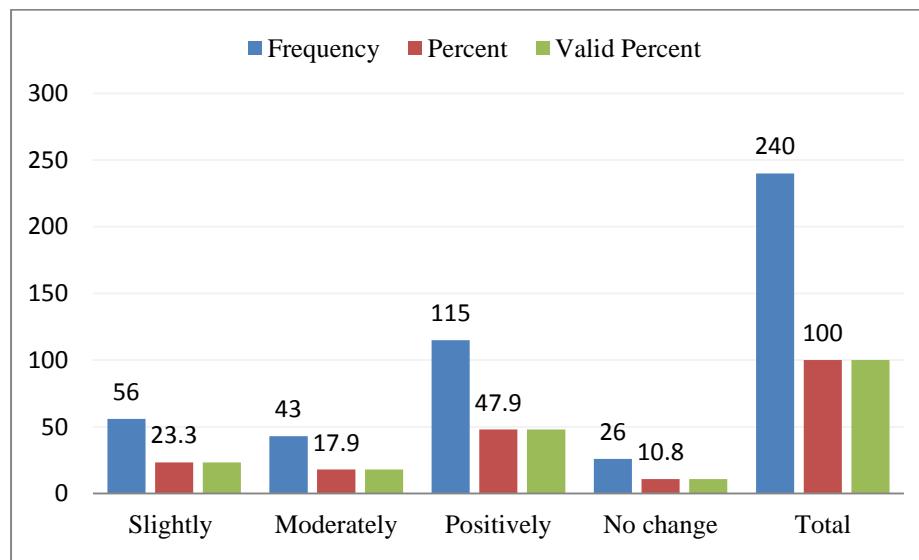
- a. Developing the economic capability to sustain prosperity once the oil runs out.
- b. Limiting the risk of oil prices swing occurring often in global market.
- c. Providing job opportunities for Libya's citizens not engaged in oil sector, to help them become a productive part of the economy.

Table 7-8: Perception on Economic Diversification Potential

		Frequency	Percent	Valid Percent
Valid	Slightly	56	23.3	23.3
	Moderately	43	17.9	17.9
	Positively	115	47.9	47.9
	No change	26	10.8	10.8
	Total	240	100.0	100.0

Source: field study, Libya 2010.

Figure 7-12: Perception on Libya's Diversification Prospects



This particular question was developed to explore respondents' perceptions in regard to their country's prospects, because diversification tends to become more economically stable over time, and less exposed to external risk. Data outcomes in Table 7.8 showed that 47.9% of respondents indicated that diversification has a huge economic potential, and would reap a greater advantage, and economically viable if it have received ambitions. Further economic reform towards establish diversification regime will cause a meaningful impact on the structure of the economy, and provide variety of

benefits to the state economy if the policy is implemented early enough, and thus the aforementioned economic issues can be avoided.

The whole sample showed a significant willingness regarding diversification, which has become a matter of importance. However, this was not understandable for the 10% of participants who chose the “no change” answer (Table 7.8), because they believe that Libya’s capability to deal with the economic challenges that may arise is weak, and they don’t know whether sufficient policy reforms can be made in a timely fashion. Their views indeed seem to be true, and this issue needs to be fully addressed if the desired results are to be achieved to ensure great future economic rewards.

7.1.5 Part Five: Promoting Sustainable Economic Growth to reduce the level of Unemployment

The most important economic objective of diversification is to provide job opportunities for the vast majority of the population not engaged in the oil sector to be a productive part of the economy and society. Thus, to create new jobs opportunities depends mainly on accelerating economic growth. The expansion of the oil sector cannot directly solve the country’s severe unemployment. The creation of employment for the rapidly growing labour force will be critically important in the future of Libya, mainly because the country is currently suffering from a severe unemployment problem estimated at around 30%, where almost 80% are Libyans under the age 35, and about 60% are aged 25 (The National Authority for Information and Documentation, 2008). This high proportion of job seekers in small population of 6.2 million, whose basic needs are still not met, maybe viewed as big concern at the present time. By conducting this part of the survey we intend to analysis viewpoints of respondents’ aiming to explore whether or not diversifying of the economy outside of the energy sector can provides job creation.

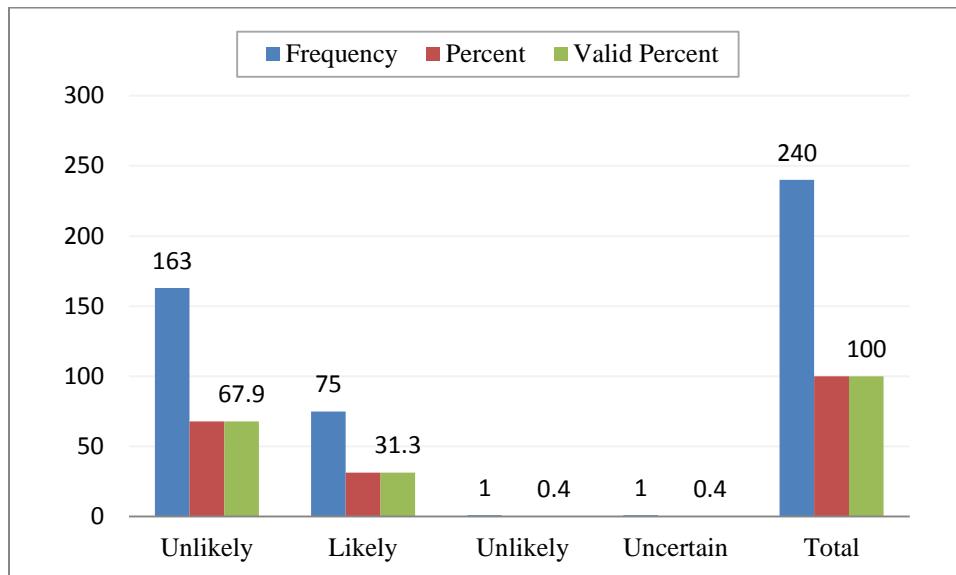
Table 7-9: Inability of the Oil Sector to create more Jobs Opportunity

		Frequency	Percent	Valid Percent
Valid	Unlikely	163	67.9	67.9
	Likely	75	31.3	31.3
	Unlikely	1	.4	.4
	Uncertain	1	.4	.4
	Total	240	100.0	100.0

Source: field study, Libya 2010.

A large number (i.e. 67.9%) from the whole sample of respondents' (Figure 7.13) stated their answer is "unlikely", which is relatively high. This makes it clear that the oil sector would not be able to offer enough jobs for the unemployed, due to the oil sector being capital intensive but it's not labour intensive, and growth in this sector has been unable to generate sufficient number of jobs, which ultimately reduce unemployment in Libya in recent years. Concerning the present level of unemployment (30% actively seeking a job), young and rapidly growing populations are might causes a significant pressure on the economy.

Figure 7-13: Consciousness on inability of oil sector to provide enough jobs



The oil sector can only provide a small fraction of necessary jobs, because national oil companies are dominated by the NOC (National Oil Corporation), which is totally state owned, and has a responsibility to offer jobs for Libyan nationals where possible. However, it is important to understand that in this type of economy, diversification will not happen without public sector reform. It is also noted that if a reduction in the size of the public sector is achieved, the outcomes are higher (not lower) economic growth, and a more diverse economy.

Table 7-10: Perceptions on the Substitute Non-Oil sectors (e.g., Tourism, SMEs) to ease the Labour Market pressure

		Frequency	Percent	Valid Percent
Valid				
	Totally Agree	171	71.3	71.3
	Agree	62	25.8	25.8
	Not sure	6	2.5	2.5
	Disagree	1	0.4	0.4
	Total	240	100.0	100.0

Source: field study, Libya 2010.

71.3% of respondents (Table 7.10) totally agreed 71.3% and 25.8% agreed that oil and gas sector would be unable to generate a sufficient amount of jobs for the currently unemployed, and absorb the new entrants to workforce market, respondents attributed this to its low flexibility and limited backward and forward linkages with the rest of the economy. Given that oil is very capital intensive, this traditional tool employed by Libya to absorb young nationals into the labour market by employing them in the public sector has proven to have its limits and is not sustainable. Thus, the developments of the private non-oil sector such as the tourism industry, and SMEs are crucial for easing labour market pressure.

Figure 7-14: Perceptions on prospective of Non-oil sectors to create job

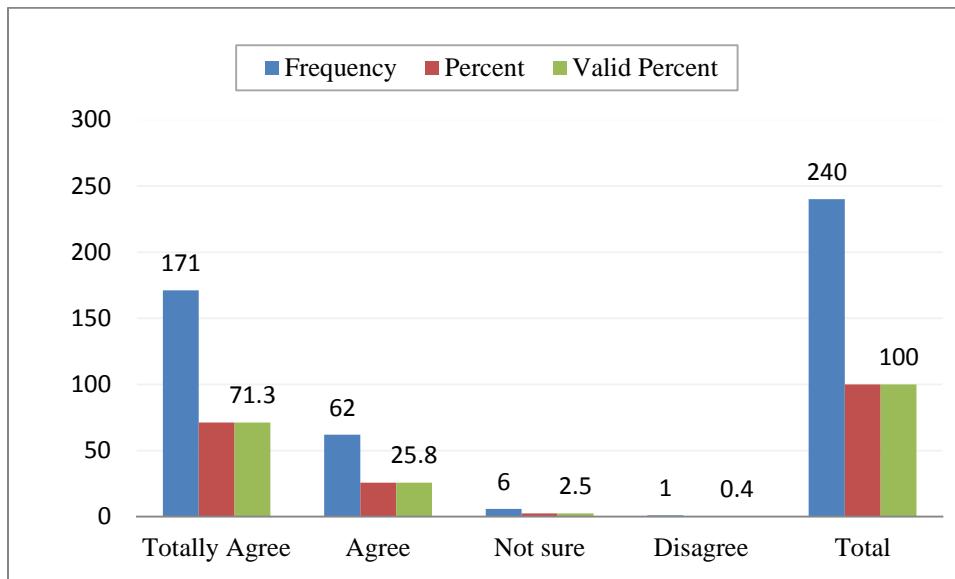


Table 7-11: An Indication on the Best Annual Rate of Growth needed in Non-Oil

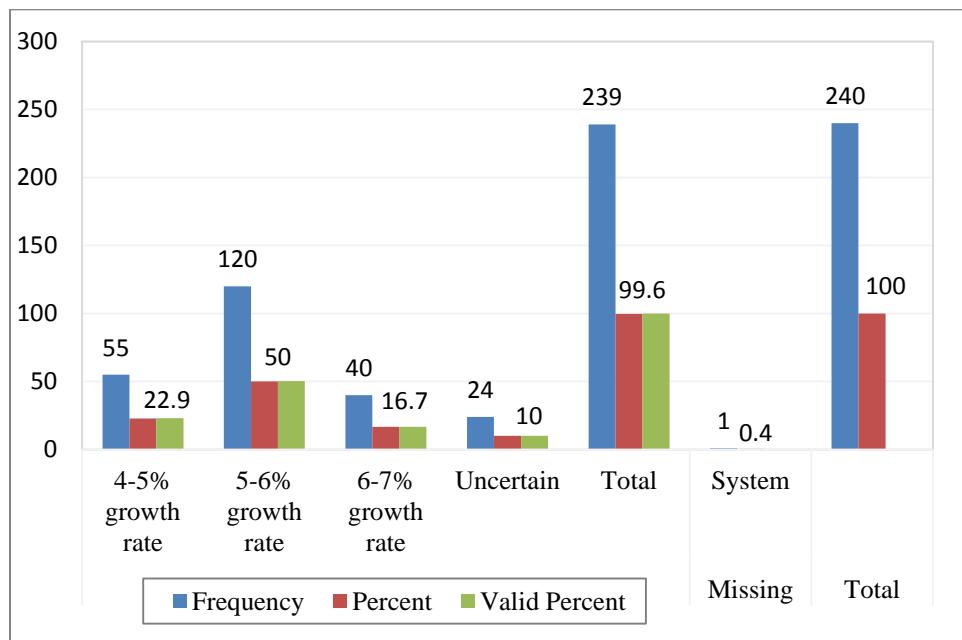
		Frequency	Percent	Valid Percent
Valid	4-5% growth rate	55	22.9	23.0
	5-6% growth rate	120	50.0	50.2
	6-7% growth rate	40	16.7	16.7
	Uncertain	24	10.0	10.0
	Total	239	99.6	100.0
Missing	System	1	.4	
Total		240	100.0	

Source: field study, Libya 2010.

The best measure of sustainable economic growth is simply looking at the GDP rate of non-oil to consider whether the achievement of a country is sufficient. For this particular purpose this question was developed. The majority of respondents (50.2% shown in Table 7.11) stated that the Libyan economy, in the long run, needs at least 5-6% annual growth in non-oil sectors in order to reduce the level of unemployment, but 4-5% in the medium term would be adequate, as indicated by 22.9% of respondents (Table 7.11). So far, policy prescriptions to tackle unemployment seem to have focused on boosting economic growth. The

ultimate aim in the case of Libya's present dual economy (i.e. the case of being oil dependent) is to reach a state of economic diversification whereby this duality is abolished and dependence on the oil sector is eliminated. Coupled with this would be a situation of self-sustained economic growth whereby the Libyan economy grows, in real terms, at least at 4-5% per annum over and above the population growth rate. It needs to fully mobilize the available labour force of the country, instead of sustaining a dual economy where a small part of the economy creates most of the economic value and the remainder of the country's economic resources are idle or underutilized.

Figure 7-15: Suggestion on the best annual rate of Growth needed in the Non-oil sectors



Since there is no major shift in the structure of the Libyan economy towards non-oil services, that thus no growth path can significantly reduce unemployment ratio. The participants certainly recognized that such a structural cause of the unemployment cannot be tackled without the non-oil sector being an important component of any diversification plan. Even if oil was not

exhaustible, and export concentration in oil did not involve any risk, diversification would be needed to provide employment.

7.1.6 Summary of Key Findings from the Questionnaires Survey

In this section the main objective was to utilise a survey of sample of Libyans for the aim to obtain a possible an indication of the consciousness of whole the population in relation to some significant economic factors. For instance, oil resources and the potential serious problems following its possible finiteness, and the narrow base of productive and export of non-oil economy reflected in its past poor performance. The sharp increase in population rates is reflected in the high level of unemployment, and there are other contributing factors (of critical importance to Libya) which have come about as result of its over dependence on the oil sector, and which are constantly having a severe impact on future economic growth, and thus economic performance. In particular, the survey was conducted in order to gain a further feedback of respondents' perceptions of potential prospect to lessen its dependence on oil and broaden its economic base in a way that would transform its relatively undeveloped, into that of a developed, structurally diversified modern form.

It was identified that the sample is more representative of the wider population as they are very knowledgeable. Hence the research directly reflects the views of the participants based on their experience. It was also found that indeed, participants were more attentive, as Libya being more reliant on oil is the main factor, which is dominate the rates of growth in the economy, so the fluctuations in world oil prices lead to fluctuations in the rates of growth of the economy meaning that Libya's should seek for an alternative source of income that is able to change this unilateralism, and therefore reduce the severity of this unilateralism and reliance on a single source for income, especially if that source is vulnerable to external shocks.

Regarding the alternative that Libya has in financing its economic activities if oil price fall substantially respondents suggests that; investing in non-oil economic sectors, e.g., diversifying into tourism, manufacturing, and finance. From this response, any fluctuations usually occur in oil prices do appear to be a matter of great concern to many of respondents because will directly affect their income, and it is evident that there is a willingness among them to consider and support of diversification policy that will help Libya to better prepare for a future less vulnerable to significant impact of oil price trends upon government revenues.

- **Awareness Eventual Depletion of Oil Resource**

The first part of the survey analysed respondents' awareness of the significance of oil and its likely finiteness. It was found that a large number of the respondents highly aware of the significant role played by oil resource, and of the seriousness of the problems associated with eventual of their country oil exhaustion indicating that; such awareness is pre-requisite to prepare for the projected gradual reduction, it is important to commence the diversification policy early enough in advance to address the issue of the eventual depletion of oil resource. The conclusion presented in the chapter four wherein we found it that the policies adopted by the government have not been reduce substantially the dependency on oil income.

- If the current trend of oil production extraction becomes existent, the country would face sever deterioration in its wealth.
- Increase the amount of extraction feasible and depletion will cause a reduction in the size of the country's oil reserves.

- Seriousness of Insufficient Job Creation

Survey opinions were also varied in terms of the seriousness of unemployment as a policy issue at present or in the future. The high rate of population growth and limited skilled national manpower are viewed as a big concern problems indicated by almost the whole sample of the respondents. Libya's total economically active population is estimated at 1.8 million, the rate of human economic activity is 45.9% (General Authority of Information and Documentation, 2008). The total of job seekers have doubled the figures of unemployment to around 30%, and this rate is mainly affecting the young looking for work, which will put more pressure on the labour market, and increase the demand for social services, especially education and health care. The noticeable reasons behind the high unemployment rate in Libya are;

- a. The expansion of education and training being much larger than the expansion in economic activities.
- b. A lack of support to establish SMEs which do not require qualifications and experience.
- c. Easy access to foreign workers who accept any type of work with low wages.

It's been noted that a high percentage of jobseekers are university and polytechnic graduates, which is an indication of the lack of adequate coordination between the education sector and the needs of the labour market, low quality of educational outcomes and the inadequacy of the availability of the work that they would have. This situation is expected to worsen. The cause of the problem is that the current employees do not have the skills, knowledge, or motivation required to meet the available jobs. Thus, oil cannot tackle this issue in the long run to provide sufficient amounts of jobs and absorb new entrants due to:

- Low flexibility, and
- Capital intensive limited backward and forward linkages with the rest of economy.
- High degree of atomisation in this sector.

The oil and gas sector, which represents the main source of national income, has only a limited capacity for employing Libyan manpower, and has not exceeded 2.1%. In contrast the share of workforce in service sectors, especially the services sector of public administration and educational was bigger, which indicates that employees have a tendency to work in the service sector. Perhaps it should be noted here that, the expansion in the employment services of public administration was a natural response to the expansion of the government in delivering services to citizens and its dominance in most economic activities, and employment. Thus, this expansion in employment in this sector does not reflect the progress in production and labour productivity. Creation of employment will be critically important in the future in Libya, because of;

- a. Severe unemployment (30%). The proportion of young job seekers has increased, while the capacity to absorb them is insufficient.
- b. Even if oil was not exhaustible, diversification would be needed to provide employment.

The projected growth rate under the current policy would not be sufficient to create new job opportunities to meet the needs of the Libyan work market. In most successful economies, capital and labour tend to be balanced across a wide range of sectors. In Libya this is not the case, which indicates that:

- a) Employment is distributed quite unevenly, the oil and gas sector for instance, which produces more than 60% of country's GDP, provides job for only 2-3% of the total country's employees, where the majority of the workforce employed in sectors relatively less economically productive

and of secondary strategic importance to sustainable growth and development. Moreover, labour and capital productivity in non-oil sectors lags far behind those in oil.

- b) The Libyan economy needs at least 5-6% annual rate of growth, to reduce the level of unemployment for the long run, but 4-5% in the medium term would be satisfactory.
- c) An important result which appeared from the answers to the above question was that policy prescriptions to tackle unemployment issues seem to have focused on boosting economic growth. Thus far, recent non-oil performance revealed a modest average real growth which seems to be insufficient to reduce the number of unemployed and absorb new entrants into the labour market. Based on the respondents suggestion it would need a sustained 6% to 7% growth of GDP in order to bear down the level of unemployment, and absorb the new of job seekers.

However, the events of Libya's civil war took place in February 2011, and the legacy of negative effects on the regularity of oil production and export, and other non-oil economic activities will reflect negatively on the achievement of that viewpoint for growth given by respondents. In addition, the outcomes of the survey illustrated that, despite the fact that non-oil sector in the Libya has witnessed remarkable growth over the previous years, it must be noted that this growth rate remains at a level far below what is required for an effective reduction of unemployment. The scope to provide jobs for nationals in the productive sector was inadequate.

- Perceptions of Libya's Diversification Prospects

Part four dealt with respondents' viewpoints on current and likely prospects to diversifying Libya's economic activities. It was found that:

1. Key findings: A substantial number of views emphasised the urgent need for diversification as a strategy, to achieve goals of reducing or phasing-out the dominance of oil.
2. Libya should avoid any future dependency even though the oil provides enough wealth.
3. Non-oil sectors have not totally developed, and still have pervasive structural gap due to earnings generated by oil were not being reinvested effectively in sectors with high added value such as manufacturing and tourism.

The survey dealt with the respondents' perceptions and identified substantial willingness to establish diversification as a beneficial strategy option for sustainable economic growth and thus maintain stability. However, respondents were honest emphasised that efficient preparation must be made before oil wealth runs out, and because of this, the task is not easy at least in the near future, therefore, it is evident among the participants that there is keenness to consider a particular type of structural economic reform that would facilitate the necessary change towards a better future less dependent on oil.

In our survey, the primary results were not very unanticipated, as they more or less repeat well-known assessments about the economic peculiarities of Libya, as a typical example to other oil based economies. Much of the essence of the participations arguments are not new, as these fundamental ideas have already been debated in Libya for many years. Therefore, the aim of our study might sometimes sound a bit truism-like on the one hand. On the other hand, an assessment of diversification perspectives cannot disregard these essentials.

7.2 Factors Enhancing Economic Diversification

The main objective of this subsection is to identify the factors that affect and lead to successful economic diversification in Libya. There were many consensuses among all groups participants' that diversification of the Libyan economy is a most appropriate means by which economic growth achievements can be sustained. However, varied experiences raise the question of what factors drive diversification and what policies can foster it in the medium and long-term? Identifying the determinants of diversification is one part of the answer to this question. Linking these policy instruments to growth and development outcomes is the other part of the puzzle.

This suggestion obviously leads to the search for those economic factors and non-economic policy actions that are likely to affect the level and rate of diversification in a certain country. Relatively recent literatures (e.g., UNECA, 2007; Ben-Hummoda, *et al*, 2006), have identified several factors to explain the diversification process. Their main finding points out that the possible links between the levels of diversification in a given economy could be economic and policy variables, and concluded that, the relevant variables are policy related and institutional in nature. However, the performance of the Libyan economy highlights policy, macroeconomic, and institutional variables that could influence diversification outcomes.

One of the most important questions in economies is how a country could achieve sustainable economic growth. The theory of diversification to sustainable economic growth is regarded as a likely answer to this important question. It seems that there is consensus among the respondents on whether or not diversification would create a sustainable growth rate in Libya, and this finding tends to support the suggestions that diversification is the main factor for economic growth but not the only one. There are two main reasons for choosing Libya as a case in point to analyse the relationship between diversification and

sustainable economic growth. First, Libya experienced a low level of non-oil GDP growth for a decade compared to other oil dependent economies. Second, diversification is accepted worldwide as an optimal strategic option for oil based economy to maintain and sustain economic growth.

Diversification outcomes are likely to enhance by two imperative factors, which are constitutes economic and policy in nature. In this regard, does the diversification process in the Libya economy pursue the two factors indicated? If so, which are the most effective economic and policy factors which may enhance the diversification capabilities towards being more economic sustainable? This proposition basically led the researcher to make a possible evaluation on both factors, and the answer to these questions is based on the perceptions of the participants of the questionnaire that was used to gather the primary data. The researcher used two types of statistical technique, simple correlation matrix, and logistic regression model to analysis were employed to estimate the relationship. This would give us an indication of both directions (positive or negative). In doing so, we need to extract some from the questionnaire in order to assess their effect on economic diversification.

7.2.1 Simple Correlation Matrix

Figures contented in table 7.12 estimates the correlation matrix of diversification with other economic variables such as attractive foreign investors, quality of institution, and macroeconomic management. These data outcomes were derived from the perceptions of respondents and analysed by using the statistical software IBM SPSS 20. Using simple Spearman correlation is essential to measure the degree of relationship between the variables.

In determining the direction of the relationship between the variables, the results illustrated in Table 7-12 show that, the relationship between diversification capability and attractive foreign investors are positively correlated (0.20). This positive impact is validated by the very highly significant ($p\text{-value}<.001$). Since

the $p < 0.001$ than the level of significance (0.01), it is therefore concluded that, FDI can significantly enhance diversification and ultimately growth. This means that when FDI increases, the diversification would be higher; as the level of investment increases there is tendency for the country to become more diversified, and sustain a rate of growth. Libya's economy also fit well into this suggestion where the finding indicates that there is a positive correlation between the two variables, and that they complement each other.

Table 7-12: Simple Correlation Matrix between Diversification and Economic variables

Variables		Diversification	Attract foreign investor	Degree of openness	Institutional capacity	Macroeconomic stability
Diversification	correlation	1.000	.200**	.250***	.220**	.154*
	p-value	.	.002	.000	.001	.017
Attract foreign investor	correlation		1.000	.322***	.209**	.021
	p-value			.000	.001	.743
Degree of openness	correlation			1.000	.378***	-.041
	p-value				.000	.526
Institutional capacity	correlation				1.000	.069
	p-value					.286
Macroeconomic stability	correlation					1.000
	p-value					

Sources: Field work, 2010; SPSS outcome

- *** significant at 0.001, **significant at 0.01, * significant at 0.05
- Sample size n= 240

This result in fact suggests that, in order for economic growth to be achieved and sustained, policies aimed at FDI have to be promoted. Its main influence can be explained by the increase in Gross Fixed Capital Formation (% of GDP). However, due to the marginalization of economic policies that can be seen in capital flow and FDI, the Libyan economy was delayed in its development route and were unable to gain good results because public investments were insufficient to sustain a strong foundation for a diversified economy. Therefore, this suggestion would not be accepted if such an investment policy had not been significantly supportive of the non-oil productive sectors. This finding goes along with the similar finding of UNECA, 2007; and Al-Kawaz, 2008, where

investment was found to be the most effective variable in explaining the diversification behaviour, and where the degree of openness is found to be ineffective. This is a very significant result and it is in line with other empirical evidence (see for instance Ben-Hummoda, *et al*, 2006; UNECA, 2007) which indicated that unless a country commits a sufficient portion of its national income to building capital stock, it is unlikely to be able to diversify. Institutional capacity shows positive correlation with diversification (.220), which is very highly significant ($p\text{-value}<.001$). Diversification is also positively correlated with degree of openness (.250), where the correlation is found to be very highly significant ($p\text{-value}<.001$). The lowest positive correlation is noted between macroeconomic stability and diversification (.154), this correlation is highly significant ($p\text{-value}=.017$). In terms of correlation between the economic variables themselves, the highest and significant correlation is found between: FDI and Degree of openness (.333, $p\text{-value}<.001$), Degree of openness and Institutional capacity (.387, $p\text{-value}<.001$). Notice that this correlation may lead to problem of multicollinearity among these economic variables in the case of using regression model (Madoala, 2001). As a result degree of openness may be dropped from any future regression model.

From the correlation values, it is noted that the whole economic variables of interest show positive contribution in enhancement the diversification. To measures each economic variable partial contribution to variations in the diversification, logistic regression is conducted. Assess the predictive ability of set independent variables, in demonstrate causality, or if an independent variables causes any change in a dependent variables. How can one predictor be more influential than the others? By applied Logistic regression model using SPSS as statistical procedures analysis enabled to identify which factor that we believed has significantly than the other.

7.2.2 Result of Logistic Regression Model

Here, the target is to assess how the economic variables (predictors) can contribute to the enhancement of diversification (dependent variable). Since the dependent variable is binary (yes/no), where yes represent enhancement of diversification, while no is otherwise, the linear regression model is not appropriate technique. Logistical regression is always applied rather than linear regression when there are only two categories of the dependent variable (Christensen, 1997). Logistic regression is also easy to use with SPSS. Logistic regression provides a coefficient, which measures each economic partial contribution to variations in the diversification which only take on one of the two values: 0 (no) and 1 (yes). The aim is to correctly predict the category of diversification for respondent cases.

After fitting logistic model, it is important to test whether the economic variables add significant effect (contribution) diversification. In other word, the aim is to measures the improvement in fit that the economic variables make compared to the null model. Chi square is used to assess significance of the logistic model with the economic variables. If the resulting p-value for chi-square test at (.05) level or lower, the logistic model with the economic variables is statistically significant. The coefficient of determination denoted R^2 and pronounced R squared, indicates how well data points fit a logistic model for the diversification variable. The model estimates from a logistic regression are maximum likelihood estimates to evaluate the goodness-of-fit of logistic models, Nagelkerke R Squared is used which is ranging from 0 to 1. Notice that higher values of Nagelkerke R squared indicates better model fit.

Another essential concept is the odds ratio (OR), which estimates the change in the odds of membership in the target group for a one unit increase in the predictor. Regarding this study, OR can calculate the odds of a diversification happening given a particular economic variable. An OR of 1.00 indicates that

the two groups (for example, FDI [yes/no]) are *equally likely* to enhance the diversification. An OR which is higher than 1 indicates that the first group (for example, being FDI) is *more likely* to enhance the diversification than the second group. An OR of less than 1 indicates that the first group was less likely to enhance the diversification. Wald statistic for an odds ratio is distributed as chi-squared and used to test the significant effect of each economic variable on the diversification variable. As first for building logistic regression model, it is essential to construct two hypotheses to test in relation to the overall fit of the model:

H_0 : *The model is not a good fitting model.*

H_1 : *The model is a good fitting model (i.e. the economic variables have a significant effect on the diversification).*

Since the resulting chi-square is 47.841 which is very highly significant ($p\text{-value}<.05$), H_1 is accepted, meaning that adding the economic variables to the model has significantly increased our ability to predict the diversification variable, see Table 7.13. The goodness fit of diversification model using Nagelkerke R² is .386, namely the fitted model ability is about 38.6%.

Table 7-13: Logistic Regression Results for the Diversification Variable

Variable	Coefficient	Wald	p-value	OR	Decision
Institutional capacity	1.307*	5.974	.015	3.696	Significant
Macroeconomic stability	1.995***	19.151	.000	7.352	Very highly significant
FDI	2.189***	14.431	.000	8.929	Very highly significant
constant	-12.767-	38.827	.000	.000	
Chi-square= 47.841, p-value<.001			Nagelkerke R Square=.386		

Sources: Field work, 2010; SPSS outcome

- *** significant at 0.001, **significant at 0.01, * significant at 0.05
- Sample size **n= 240**

According to Table 7.13, the FDI coefficient is statistically highly significant ($\text{Wald}=14.431$, $p\text{-value}<.001$), and hence the diversification is positively affected by FDI (coefficient=2.189). OR for FDI is 8.929, indicating that FDI is likely to enhance the diversification 9 times more than non-FDI. Also, macroeconomic stability has very highly significant impact on the diversification ($\text{Wald}=19.151$, $p\text{-value}<.001$). Based on Regression coefficient, the effect of macroeconomic stability is positive (coefficient=1.995). The OR for macroeconomic stability reaches 7.352. Using OR, macroeconomic stability is likely to enhance the diversification 7 times more than non-macroeconomic stability. Institutional capacity results in significant impact on the diversification ($\text{Wald}=5.975$, $p\text{-value}=.015$). According to the sign of Regression coefficient, the effect of institutional capacity is positive (coefficient=1.307). The OR for institutional capacity is found to be 3.696. Using OR, institutional capacity is likely to enhance the diversification 3.696 times more than institutional capacity. This suggests that the predictors are associated and at least one of them is significant for the Logistic regression model.

Despite Libya's relative attainment in the area of economic diversification, there is much more which needs to be tackled to increase the contribution of non-oil sectors to production, income, and employment. In this respect, IMF (2013) stressed that this is exactly the area where FDI can significantly contribute to broadening the productive base of the Libyan economy and reducing dependence on its single primary source of income (oil), thus serving as a vehicle to boost the diversification drive. The suggestion stated that, two independent variables of economic policy would largely determine the ability of Libya (as an oil dependent economy) to diversify, mainly: attracting foreign direct investment and institutional reforms.

Foreign Direct Investment was seen to possess the potential as a mechanism and appropriate vehicle to induce the intended diversification of the Libya economy. The huge potential of the hydrocarbon sector, the high levels of financial flows

generated from these resources that can provide a reliable source of capital. FDI has positive impacts on domestic investments especially if these flows are affected in industries with domestic forward and backward linkages. Investment policies should aim at attracting FDI into Tourism, and physical infrastructure where these areas, which are ideal. Ultimately this boosts individual incomes and savings can be directed towards further investment projects, which can boost production. Consequently, a sustainable increase in the growth of national and individual income can be achieved. These gains will in turn assist in broadening and diversifying the productive bases of the economy. However, the success of Libya in attracting larger volumes of FDI depends significantly on the existing of relative economic stability believed to be imperative for a smooth and increasing flow of FDI.

The relationship between diversification and growth may be conceptualized as reflecting more fundamental, underlying determinants. Resource economies with strong institutions will have a wider range of potential options for diversification than those where institutions are weak. Policy and institutional factors may influence the transition to more diverse production structures, and thereby affect the pace at which growth can be sustained. For instance, policy barriers and structural rigidities in labour and product markets may hamper the process of diversification. Likewise, insufficient or low-quality public infrastructure may retard the development of those sectors that rely disproportionately upon it (Papageorgiou, and Spatafora, 2012). This factor may prove especially important in Libya, where large portion of investment stems from the public sector. Thus, the interaction of the FDI and influential institutions variables are more likely to drive diversification process of Libyan economy better than their individual effect. In our exploration it is highly probable that, improving the quality of government institutions, because competent states and relatively high levels of governance tend to lead to satisfying diversification outcomes.

Results also show the positive but weakly significant result between the degree of openness and diversification. The relevance of an optimal trade policy (openness) doesn't necessary mean for growth and better diversification, given that in a direct way, openness can lead to specialization rather than diversification in the case of Libya. For instance, the opening to the market in the early 1990s was hesitant and not sufficient to boost growth. A number of factors explain the limited success of the partial opening to private economic activity. First, key institutions for the market to play its role as an allocating mechanism had been removed and replaced by a distributive state. Second, the State's intervention in the economy remained pervasive. Third, property rights were not secure and regulatory uncertainty remained high (Otman and Karlberg, 2007).

Although diversification is essential for growth, it is neither the only necessary factor, nor sufficient by itself, (there are complementary conditions such as macroeconomic stability, attractive foreign investors, and quality of institutional). Without a doubt, diversification process should be seen as one set of instruments for pursuing the goals of economic growth. The analyses have shown that, diversification leads to sustainable in growth among other determinants. The significance of the relationship between diversification and growth in the case of Libya cannot be gained. This implies that, Libya can only scale up economic growth by pursuing polices that enhances diversification.

7.3 In-Depth Interview Data Results using a Content Analysis

For the objective of this research, an attempt has been made to present the analysis of the in-depth interviews in support of the findings obtained from the questionnaires, concerning senior Libyan officials whose main jobs are directly related to the research subject. It covered specifically economic researchers, experts and policymakers in economic planning and development areas. The researcher made contact with a number of key economic units' administrations. Four of the senior officials were from the Libyan NPC (National Planning Council), NEDB (National Economic Development Board⁶), and IPD (Institute of Planning and Development), the aim was to obtain the necessary information. Most of those administrations were in charge and on the top of their Boards. There are another eight economic experts were also contacted and interviewed. Two were representing the Libyan RCES (Research Centre for Economic Sciences), and the remaining six were professional administrations representing the Public Board for Economic Units Ownership, Planning Secretariat (the reason for interviewing them was because they represented the highest authority for designing and putting in place medium/long term economic plans), and the Central Bank of Libya. This made a total of twelve interviewees, which is a relatively small sample, but they were considered as representatives of the Libyan people in context, and were suggested by the researcher to be the most appropriate people to discuss and provide information on the subject matter. Overall, fourteen questions covering four themes were prepared by the researcher for all of the interviewees. Most of the questions presented were focused on the economic performance of Libya, paying attention mainly to diversification paradigm. However, the study attempts to reflect the consensus views of all those interviewed and surveyed, it also tries to be brief.

⁶ This foundation was established in 2007, as an advisory body to help the Libya state in an achieving its goals of diversify the economy away from oil and state-controlled, also to clear some obstacles to successful private sector.

Qualitative Data Presentation In-Depth Interview

The current research study has used a qualitative content analysis, which addresses some of the weaknesses of the quantitative questionnaire approach. Applying the methodology of content analysis the main objective is to identify important themes or categories within the content, in order to provide a rich explanation of the economic reality arising from these themes. According to Hsieh and Shannon (2005), this objective approach is basically a summative content analysis, which begins with the counting of manifest content, and then extends the analysis to include latent meaning and themes. Zhang and Wildemuth (2009) clarifies that it put emphasis on unique themes that exemplify the scope of meaning of the phenomenon. This is done by carefully interpreting the content of the text data (preparing the data and proceeding through writing up the findings in a statement), and then classifying processes and identifying themes or issue aspects. In the subsequent section the research provides the textual analysis of interviews with senior officials, aiming to tackle the most of key themes identified, and as laid out in the methodology chapter. Based on our detailed in-depth interviews assessment of the Libyan economy, four key themes emerged:

7.3.1 Theme One: Libya is Oil Rich Country, but Development Policies Targeting Diversification Remains as Long Term Objective.

Questions one to five were developed to gather interviewee perceptions in terms of the inadequacy of economic policies pursued aimed at diversification objectives which lack good management of the country's wealth.

Table 7-14: Interviewee Perceptions on Insufficient of Economic Development Policies Pursued Targeting Diversification

Aspects	Similarity	Variation of answers
Misallocation of oil resources	11	1
Misconduct of the state	9	3
Public sector dominance	12	-

Source: field study 2010: Total valid =12

The country's over-dependence on the oil factor resulted in some insufficient developments, for instance neglecting other sectors in the economy. These shortcomings raised an important concern regarding the future of Libyan economic development when the income from oil becomes unreliable. This belief assesses Libyans' economic context and prospects, challenges, and strategic options by senior officials' attitudes, and their opinions of the importance of economic diversification, which might be the best option that needs to be addressed in order to achieve a sustainable economy. The aim of this aspect was to seek any alternative solutions for this matter that could be provided.

Table 7-15: Economic Analysis of Personal Interview's Surveyed

Response rate	Economic impact of oil reliance
Yes	10
No	2

Source: field study, total valid response =12

In the context of economic development, the objective of the Libyan government for economic growth was to come out with other alternatives to oil resources with a specific vision to increase country's finances and attained revenues diversification.

Most of senior officials concerned with economic development strategies pursued in preparing for economic diversification identified that: Their answers to the precise question were "No" and the overall economic development is largely uneven. In this regard all officials 12% interviewed believe that,

".....by all standards, the development plans which are concerned with establishing different substitutions for oil resources, that are able to facilitate income diversification, and ensure government revenues are financed, have not been achieved so far because the misconduct of the state, domination of public sector, and the narrow economic base were and still are the main cause of unsuccessful. The fact is that the diversification processes have not been given sufficient amount of efforts in the past, and contribution of non-oil sectors to Gross Domestic Product were very poor" [NEDB, 2010].

The interviewees strongly agree, despite the huge investments that have been implemented during the last three decades, which exceeded more than 40 billion Libyan Dinars, was aimed at achieving high growth rates in economic activities of goods and services, in order to create a production base that would help diversify sources of national income and reduce reliance on oil. However, what has been achieved from these investments shows inadequacy in achieving the targeted plans for economic and social transformation, and the development of successive budgets related to the diversification of income sources and increases the contribution of the productive sectors in GDP.

One economic connoisseur added, “.....many strategies and budget plans were pursued by the government in preparing for a non-oil future, and were directed towards reducing dependence on oil as finite resource, and achieving the objective of diversifying sources of national income. However, at least until recent years, the development plans paid little more than lip services to such aims. Rather than elaborating clear strategies to achieve diversification under the state strategy, a diversified economic base was seen as vital. In the almost three decades since then, the achievements have been muted to say the least” (RCES, 2010).

In this respect, this problem was viewed by all interviewees as a main reason for the delayed and slow development in the economy. Hence, Libyan representatives have given economic suggestion regarding how to overcome this issue;

- Absolute acknowledgment by the Libyan government of an urgent need to diversify, this should include a willingness to amend or discard past unsuccessful policies and programmes;
- Establish evident structures for decision-making about what needs to be done, and who should do it;

7.3.2 Theme Two: Revenues Derived from Oil have not efficiently been Allocated, which Inhibits Diversification.

Questions five, six, and seven were designed to collect interviewee perceptions in terms of whether economic diversification has been recognised as an economic alternative mechanism which has the potential to optimise solutions to avert oil dependency.

Table 7-16: Interviewee Perceptions on the Country over Reliance on oil, and Lacks of Economic Diversification

Aspects	Similarity	Variation of answer
Oil dominates economy	12	-
Narrow scope of diversification	10	2
Poor macroeconomic management	11	1

Source: field study 2010: Total of interviewee =12

Akin to many other oil dependent countries, Libya has realised the fact that economic diversification could be an attractive strategic option to help sustain the national economy, and thus cope with the development inefficiency. The whole community have raised their awareness of the over dependence of Libya's economy on oil, and understand the risks this may cause.

Among the executive managers interviewed, one elucidated that:

“.....Libya has the unique potential to go ahead in order to improve its successful economy through expanding the base of economic diversification, is best policy to achieve its economic development” (NPC, 2010).

However, this potential needs a good planning to meet the requirements of sustainability, which cannot be achieved unless all the essential economic facilities become available and all economic development plans are integrated into other economic sectors in order to accomplish positive results. For instance, regarding economic facilities, infrastructure, improvement of the overall macro and micro economic environment which might include taxation regime, government intervention in improving market structures and strengthening of the investment regime to support economic activities, are a key to the promotion of economic diversification in Libya.

Interviewees were also asked to clarify, why diversification should be a central pillar in the government's developmental strategy?

One of senior official amongst the interviewees confirmed that:

“.....because the high rates of growth attained over the past years have not translated into a significant broadening of economic base. Therefore, finding a replacement for oil as the backbone of the economy has become vital, since diversifying the economy away from oil is considered to be an important policy in providing some or mass of returns of other economic sectors apart from oil, which in turn will help to enhance the Libyan economy with alternative sources of income, and sustainable economic development can be achieved” (NPC, 2010).

Another Interviewee highlighted that:

“.....Recent years have witnessed progress in the process of restructuring the economy. Despite the concerns about economic development plans, these have to some extent improved especially after the lifting of the UN economic sanction, which lasted for about ten years. However, the economy of the whole is still to a large extent controlled by the public sector and lacks diversity. This situation calls for and urgently needs to accelerate the adoption of policies aimed at diversifying the economy and reducing the dependency on oil. The transfer of ownership to the private sector, and mitigation of the role of the state to function, will help regulate favourable economic conditions” (NEDB, 2010).

In order to successfully develop and establish the strategy as a guiding principle, and implement the derived actions which are required to achieve, it will critically depend on the effective co-ordination of the roles and contributions of numerous parties in both the public and private sectors. This requires the following:

- a. All participants to be directly involved in the diversification process must fully appreciate the tasks at hand, and their respective roles;

- b. All inputs have to be complementary, mutually supportive, and they must be provided in a transparent manner.

7.3.3 Theme Three: Libya's Wealth is Largely Dependent on the Oil Sector, and other Potential Non-Oil sectors are Inadequately Developed.

Questions eight, nine, ten, and eleven, were developed in order to gather interviewee perceptions' in terms of other alternatives which may become very prominent in shifting the country's economic policy toward a non-oil private sector led economy.

Table 7-17: Interviewee's Perceptions of new Economic Trends Desired to Raise the Relative Share of Non-oil Sector

Aspects	Similarity answer	Variation of answers
Low productivity	10	2
Narrow scope of private sector	11	1
Limited Investment	12	-

Source: field study 2010: Total of interviewee =12

In the context of the Libyan economy, economic diversification in essence implies expansion of the non-oil sector and decreasing the amount of state revenue income generated by the oil and gas sector. Implicitly, nevertheless also means reducing the role of public sector in the economy; a goal which is essential in the on-going fight to overcome economic instability. In order to improve the image, the interviewees were requested to convey their visions regarding the new trends desired to promote and develop non-oil production and services, which is important for enhancing its weak role, this is reflected in its current narrow capacity to contribute to the GDP, its inadequate private investment, and its small productivity.

Economic experts believe that: “.....productivity growth, (labour and capital) outside the oil and gas sector is extremely low” (RCES, 2010), another

senior government official suggested that: “.....it is likely to be little more than zero” (NPC, 2010).

A number of studies and data validate this view. For instance, the World Bank’s estimates in 2004 put the average annual growth in the productivity of labour in the non-oil sector at -2%, particularly in the public sector, due to a significant portion of the population being employed in low quality or redundant jobs, with negative productivity growth in manufacturing, agriculture and services since the mid-1990s.

One of policy makers stated that: “.....in developing the domestic non-oil sector with significant participation from the private sector, these policies are broadly defining their strategies on the basis of a country’s oil resource profile, foreign exchange reserves, and investment opportunities at home” (IPD, 2010).

The fact is that, due to the over concentration on the oil industry, and inappropriate budgetary allocation mechanisms, some of Libya’s potential non-oil sectors had not been fully developed. Therefore, increasing its relative share in the national economy is considered to be the crucial foundation for the subsequent phase.

One of economist an expert highlighted that: “..... In a move to enhance its role in the economy for medium and long term objectives, the government have identified oil as an important factor in their ambition to diversify the non-oil sector to become capable one of sustaining economic growth. The task should start early with greater emphasis on the role of the private sector that can bolster oil wealth in the economy in order to meet the large requirements of the manufacturing sector’s raw material, which is expected to contribute towards accelerating the process of diversification through expanding markets and investment opportunities in productive and craftsman sectors, and the better management of public investments domestically and abroad” (RCES, 2010).

In addition, director of department added that:

“.....enhancing the quality of Libya's human resources will also be essential for improving productivity and diversify out of oil, especially into the services sector. In order to assure the accomplishment of this task, government needs to pursue a more balanced approach to development, in particular, the primary and industrial sectors of the economy are earmarked for growth” (CBL, 2010).

Most of interviewees were aware and knowledgeable about the country's which were really lacking in the context of promoting the non-oil sector, and saw how this would make a significant contribution towards sustaining Libyan economic development, and thus growth. Most of their views confirmed the effectiveness of this sector, due to the large reserves available offered by oil industry on one hand, and the tied linkages the non-oil sector has with other sectors one the other hand.

7.3.4 Theme Four: Despite the High availability of Resources, Libya Experienced Relatively Weak overall Economic Performance.

Questions twelve, thirteen, and fourteen were devoted to gathering the perceptions of the interviewees' in terms of government support for determining a possible means of achieve an effective and sound economic performance.

Table 7-18: Interviewee's Perceptions on the State Commitment to Establish an Effective and Sound Economic Performance

Aspect	Similarity	Variation of answers
Poor infrastructure	9	3
State ownership	10	2
Lack quality of Institutions	8	4

Source: field study 2010: Total of interviewee =12

Economic diversification is seen as one of the main strategies for the achievement of the for Libya's economy outlook. A question arises to be asked, why are the initiatives already undertaken not having the desired impact? The ability of any economy to overcome its problems lies in the extent, accuracy and consistency of policies which are not clashing with each other, in terms of achieving the desired objectives. There was conscious amongst representatives, but at diverse viewpoint with the existing of Libyan economic oil resources. One economist academic explains that:

“.....The oil sector is expected to generate substantive future revenue, essential for the reconstruction of the economy, its infrastructure and the attainment of sustainable growth. How effectively these will be obtained will critically depend on the new government implementing sound economic policies aimed at maximizing the benefits from current and future oil revenue. For this to be happened it needs several requirements: improvement of infrastructure, well-established government institutions and well-skilled and informed policy-makers to implement these strategies expeditiously and efficiently” (NEDB, 2010).

Because of the current situation 2010 of Libya being at turning point economically, most utilities and infrastructures were considered as the key elements by the interviewees' as the basic foundation of the commencement stage towards modernisation. Based on the facts mentioned above other economic consultants at the RCES pointed out that:

“.....The main aim to achieve these ends is by proposing ways to develop, and modify the policy of development by increasing the degree of institutions effectiveness, and also correcting the implementation approach to ensure the participation of all individuals in the development processes. All this is achieved by means of scientific credibility. In particular it is important to study the experiences of other countries in economic and social

development programs in order to identify the appropriate ones to help development policies in Libya. We must also explore ways to create a dynamic self-sufficient in the national economy designed to move the potential interaction and integration with the global economy that contributes to high rates of economic growth which can be developed and maintained” (RCES, 2010).

One interviewee' emphasized that

“.....if these challenges are to be overcome and the envisaged economic diversification is to become reality, policy that is based on set dimensions and a package of flexible and realistic policies and mechanisms needs to prepared. For instance, strengthening the relationship with the global community economically is also another crucial challenge that warrants the consideration of the government. For instance, a rapid change at the global level, in the context of economic and social transformations taking place in Libya is important in the current climate” (ECR, 2010).

The interviewees' were asked to clarify their views in terms of establishing a conscious policy leading towards sound economic performance to guide the process. In spite of all the actions that have been implemented in Libya over recent years, the outcomes were inadequate, and the public sector failed to play a key role in the economy. This would not cause any problems if public sector operations were run efficiently, but the lack of competition, accountability, and poor management, all led to poor and low level and quality of services. It is important, to convey the characteristics of these policies and their main dimensions, and show how the approach would be implemented in order to guarantee an improved economic condition.

7.4 Conclusion

During the interviewing process, it emerged that there was an evident awareness amongst the interviewees' community that the future of oil is deteriorating and that immediate involvements are required. Most of responses to these questions indicated that, although the country has commenced such improvements, it still needs to deal with other weaknesses which are mainly based on the efficient use of the available resources. Based on interviewees' perceptions a number of suggestions can be made with respect to the prospective of diversification adoption strategy in Libya. It has been highlighted that Libya's GDP growth will be poor if the same policies towards the local private sector continue to be pursued. Without the private sector assuming a leadership role in economic development and growth' as the conversation put it, the private sector will never really be strong. Hence, it needs to be set free and allowed to take the necessary leadership role that is free from all the over regulation, red-tape, bureaucracy, ever changing rules and laws that depress it. The survey also makes it clear that the old-style state-owned centrally-driven economic policies will only achieve limited economic progress development and leadership in the business sector as these goals can only actually be achieved by the private sector. Only then will Libya's development gather pace and its growth rate move beyond the mediocre as the Central Bank report put it. Nevertheless, there are still sections of Libyan society today that are resistant, hesitant, and reluctant to either support or encourage economic diversification thinking that it is an option. The window of opportunity to develop the national economy is limited. Libya urgently needs to prepare for 30% of Libya's population who are currently under 15 years of age, to enter the workforce, and create jobs for the 33% real unemployed, many of whom are concealed via subsidized and unnecessary state jobs. These are not options. Diversification is not an option, it is a must do policy.

Chapter 8: Interpretation of the Research Findings

8.1 Introduction

The results linked with the research objectives, and a critical review of the main research questions, have been presented in the previous chapter. In order to make possible suggestions for overcoming the acknowledged issues, in this particular chapter the researcher intends to discuss and interpret the findings and results that have been drawn from the primary and secondary data of the study presented in chapters four and six. It also reflects on the literature review from chapter two, which was based on the oil economic resources and growth theories. Interpreting results is the essence of any scientific research. This is simply because interpretation of the results will eventually lead to establishing the factors that affect the phenomenon under investigation (Zhang & Wildemuth, 2009). For instance, in the sixth chapter, a survey of viewpoints was conducted in order to gauge the publics' perceptions of the issues considered in the preceding chapters. Its intent was to examine possible debates and analyse respondents' awareness in terms of the importance of oil and its likely finiteness. These findings are very important because they provide some guidance towards overcoming the identified issues, otherwise attempts to diversify the Libyan economy will not be achieved.

Thus, based on the significant findings reached from the questionnaires and in-depth personal contact interviews, these findings are now to be interpreted, so as to explore any probability that Libya's non-oil economy may undertake diversification processes in the future. Subsequently, the chapter develops an optimal approach of policy framework, which possibly will enable Libya to achieve a more sustainable pattern of growth.

8.2 The Case Being Made for Diversifying Libyan Economy

Although economic diversification has often been discussed within the commodity-based economy's growth theory, it has neither been translated into concrete governmental policies (barring very few exceptions) nor has the urgency for it gained enough momentum. This interpretation section highlights three main arguments advanced to make a stronger case for diversifying Libya's output structure and exports. The first is the false sense of abundance of petroleum resources. Indeed, in the absence of significant alternative assets, petroleum revenues will hardly meet Libya's fast growing fiscal demands. The second is the daunting task of stabilizing these revenues in a context of unrelenting oil market volatility. The third is the petroleum industry's inability to provide sufficient jobs, which is at variance with its strong economic weight. This note sheds more light on the role of diversification in the macroeconomic performance of Libya's by considering diversification in the broader its domestic economy.

8.2.1 The Long-Term Limit to the Growth of Oil Export-Based Rents

As mentioned earlier, the first critical issue that needs to be highlighted is the limited extent of the petroleum rents to meet long-term fiscal demands in face of rapidly expanding populations. The drive for diversification in the 1970s was an awareness of the finite nature of oil resources, and thus the likely prospect of an end to the oil boom (Koren and Tenreyro, 2010:2). From a long-term perspective, Libya faces the question of diversification to take into account the downward trend in disposable oil income. This downward trend in disposable oil income become under pressure by two factors; domestic oil consumption has been increasing constantly due to demographic momentum (reduction in available exportable resources) and trends in the world energy market (greater competition). Most of the economic growth has been accounted for by factor accumulation. After a certain stage, factor accumulation becomes binding under certain demographic. Libya is coming under intense demographic

pressures estimated at a 3.3% rate of population growth during 1960-2003 (World Bank, 2006); thus the decline in income per capita could become economically unsustainable. Indeed, a high rate of population growth dilutes the long-run level of rent per head. If a population grows at 3% per year, the per capita contribution of the constant resource sector will halve in 24 years (Gelb, 2010). Economic diversification for Libya is highly important, as the oil production alone cannot sustain a country's economic development, because population growth in the country will eventually outstrip the growth of revenues from oil exports. Although it is hard to estimate whether the amount of disposable oil income per capita will be sufficient to cover the population's needs, we can already see that the current rise of Libya in dependency on oil income is not very sustainable. A higher rate of population growth will presumably increase the level of investment required to keep living standards constant, this will lessen the extent of oil sustainability within a growing population. Libya's oil resources are not everlasting, and Libya will not be able to maintain its current economic situation, without industrial diversification. Indeed, there are understandable fears that as oil resources are depleted, serious economic and social problems will arise, and economic planners have declared their concerns and expressed the view that now is the time for Libya to consider alternatives.

Consider, Libya stands out among the world's important oil producing countries with approximately 3.5% of the global oil reserves, and 7% of the total OPEC members' reserves (Yahia, 2008), making an amount of 46.5bn barrels of proven reserves. The level of proven oil reserves and prospects for exhaustion will influence how the country chooses to invest or consume oil incomes. For example, a country with modest reserves and a short-term production horizon may be more likely to emphasize the need to convert extracted oil into another form of capital than one with a small population and a very long-run expectation of rents (Gelb and Grasmann, 2009:2). An important interpretation in this

context is that, oil is not a sustainable activity. Thereby if the present trends of extraction continue, the country would have to face severe deterioration in its national wealth. Hence, on the basis of known reserves gradually declining, the Libyan economy would need to seek new sources of wealth, even though these would be in a different form, to turn the use of oil resources into a sustainable path in the sense of a lasting rate of growth.

Thus, the trend may go faster in the coming few years if sufficient preparations have not been made before oil resources becomes depleted. A significant awareness of the issue has undeniably appeared among the respondents, who have contemplated a wide range of basic changes needed to seek for a new path of growth because of the country's largely oil dependent economy. They also placed a great concern on the implementation of the use of finite oil resources. This finding reflects recent literature arguments, and concurs with the core idea of economic theory (non-renewable resources). For instance, findings driven by Cinti (2008) stated that oil is non-renewable source, and one day in the foreseeable future would be depleted, subsequently at a certain point production will stop and the remaining oil resources underground will be so difficult and expensive to extract, that is to say, it would no longer be economically feasible to continue operations. This outcome was indicated noticeably by other study findings (e.g., Alnasseri, 2005:49). Mismanagement and the allocation of oil resource is the core of this issue, and misguided economic policies are the application of it. Therefore, if the available resources are not converted from oil to non-oil assets, a country that has used up all its oil reserves would find it was unable to sustain itself. Basic economic rational thinking calls for the compensatory establishing of other forms of capital in order to maintain a steady flow of income for future generation.

Among the most relevant findings for our objectives in terms of oil extraction and depletion, is that, since the optimal rate of oil extraction is likely to fall over time then a part of the proceeds from oil needs to be saved for the aim to build a

diversified economy. One of the most likely approaches by which Libya can confront this task, is to convert oil into non-oil assets. A tactic which has been adopted by a number of countries is to take a portion of the proceeds from oil extraction and invest it in a portfolio of diversified assets which is expected to provide higher rates of return and also benefit the society in terms of increased employment opportunities and income. Otherwise, once oil reserves are depleted, Libya will become as poor as it was before its current oil boom. The depletion of oil requires adequate compensation by savings, i.e. investments, which act as productive assets for future generations Hamilton and Hartwick (2005). Establishing Sovereign Wealth Funds (SWFs) is one of most likely approaches for Libya to confront this task which has been adopted by a number of countries (e.g., Alberta in Canada, and Norwegian Fund).

This funds system is based on a fiscal management tool that would ensure use of oil revenues is transformed into financial wealth preserved for a future generation when those resources have been depleted. The SWFs (Sovereign Wealth Funds) are useful to consider due to their enormous size, and due to the fact that they are mainly managed by State owned funds. An important feature in dealing with the surplus of oil and gas resources in Libya is not to continue over-dependent upon those resources, especially if the revenues are based upon only one or two commodities, thus diversification is needed that these Sovereign Wealth Funds can possibly contribute. According to IMF (2012), the objectives of resource funds are (i) savings: to transfer wealth across generations or across time; (ii) stabilization: to insulate the budget and economy from volatile commodity prices; and (iii) development: to allocate resources to high-priority socioeconomic projects. Crucially, resource funds should be consistent with their objectives, underpinned by well-framed corporate governance arrangements.

8.2.2 The Daunting Task of Stabilizing the Corresponding Stream of Revenues

Whatever the outlook for enhancing petroleum fiscal revenues, these will continue to be subject to unpredictable adverse developments in the world oil and gas markets. The sharp decline in oil prices in the first part of the 1980s, and their heightened volatility in the 1980s and 1990s, however, shifted the focus for diversification: it was a measure to counteract fluctuations in state incomes. This problem has become severely entrenched and affects Libya's long-term growth potential. Since oil exports have begun, oil revenues have become the only noteworthy source of revenue for Libya, and thus the only income to finance the large governmental spending programmes. As such, the price of oil and the nominal GDP of the country moved in tandem (Yahia, (2008). It was this one-to-one relationship between global oil prices and the performance of the economy (export earnings, government revenues, and ultimately total income and employment) that made diversification one of the priorities in economic policy.

Part two of the questionnaire items (see chapter seven), was also indicated clearly by respondents', indicating that growth seems to move with the same trends as oil prices. The Libyan GDP by economic activities seems to have changed significantly during the periods of oil prices fluctuations. This would imply that, growth in the GDP in Libya is simply a reflection of growth in its oil price (*Ibid*, p.23).

From a policy perspective, the non-oil sector GDP is thus the relevant measure to be used when assessing both the macroeconomic stability and the long-run economic performance of commodity-exporting countries (Arezik, et al, 2011). Indeed preserving the macroeconomic stability of the non-resource sector specifically will contribute to fostering investments in that sector and will therefore contribute to sustained economic growth after natural resources are depleted. Libya doesn't perform well in this respect.

Despite the efforts and the amounts allocated to development plans for non-oil productive sectors to achieve certain goals such as diversifying the economic structure and insulating the Libyan economy from the dominance of the oil sector, the revenue earned by the oil sector still represents the largest contribution to gross domestic product in the Libyan economy (IMF, 2013). As mentioned earlier in chapter four, since the early of 1970s the Libyan economy has implemented several development plans, which have aimed to build up a viable economy by diversifying it and increasing the share of gross domestic product in non-oil sector, such as manufacturing, agriculture, and services which require high investment and human capital and an efficient use of oil resources. However, the achievement of these objectives depends on oil prices. Since the first oil boom year of 1973, developments in the GDP in Libya's economy by economic activities show major structural changes.

The available data from the Central Bank of Libya (various issues) on the distribution of capital formation or allocation to various sectors and economic activities during the period of 1970-2010 illustrate that the commodity producing sector which holds the main share in the GDP, generated between 49.4% and 71.3% of the total GDP during 1985-2005 (Central Bank of Libya, 2006). The high share of these sectors can be largely attributed to the share of the oil sector. The oil sector still dominates the structure of economic activity as a higher proportion of the composition of the GDP, despite the decline in its contribution for some years, which is attributable primarily to the decline in oil prices. The services sector is the second most important economic activity. The contribution of services to the GDP declined from 46% during 1990-99 to 10% in 2005, reflecting the soaring price of oil. However, the output in services grew faster than the total GDP, so that the share of services reached 46% of the GDP in 2005 from about 40% in the early of 1990s. Despite this increase, its contribution to the GDP remains below the average in upper middle-income countries at 53.8%. It seems evident that the contribution of the basic production

sectors to the GDP was very modest. The agriculture sector, for example, recorded its highest contribution to the GDP in 1995, amounting to 8.7%, but this decreased again to about 2.8% in 2005. Therefore, it seems clear that the contribution of the agricultural sector to the economy was weak, despite the volume of investments which had been allocated to this sector through various plans and programmes for development. Some specialists at the National Planning Council (2010) point out that this modest contribution may be due to a number of reasons such as water scarcity and lack of arable land. Meanwhile, the manufacturing sector recorded the highest contribution to the GDP in 1995, amounting to 7%, which then decreased again to about 1.4% in 2005, a share that has remained very modest in diversification scope. Shamyia (2007) suggests that this low contribution from this vital sector, despite its large share of the total investment, may be due to several factors such as the nature of the local market and the failure to utilise available production capacity in an efficient manner, which negatively impacted on production costs.

The core finding that can be interpreted is therefore that the revenues generated from oil will provide finance for growth but will not necessarily spur sustained growth in the non-oil sector. Although the relative contributions of the non-oil economic sectors to the GDP have shifted noticeably over the years, the oil and gas sector has consistently represented the largest share in the country's GDP. Moreover, registered growth in non-oil sectors, such as manufacturing has generally reflected not organic growth in those industries but, rather, spill-over effects from increased oil receipts and subsequent record-high inflows of capital. Needless to say, such types of growth cannot be considered inherently sustainable, because they depend heavily on the dominant sector's fortunes in the marketplace a pattern that Libya would want to avoid. This disincentive problem is quite apparent in Libya's GDP growth as it has been driven mainly by the oil sector, but has varied over the years due to oil price changes. This suggests "contagion affects" the tendency of failure in one economic sector to

spill-over into other sectors (African Development Bank, 2009). In Libya, even the non-oil sectors demonstrate sensitivity to the oil price, because they tend to be inward-looking and oriented to the domestic market, and are therefore dependent on domestic liquidity. For instance, when the oil price is high, there is plenty of money to support growth in non-oil sectors, when it is low, and liquidity is squeezed, the non-oil sectors grow at slower rates.

This sensitivity is noticeable in all sectors that contribute to the bulk of economic output, and employment. There is unlikely to be much alternative for disagreement on the study's findings on the benefits of economic diversification for Libya. The country's dependency on the exportation of oil resources and primary commodities has been particularly exposed by the global financial and economic crisis. For instance, the decline in demand and prices of oil were mainly responsible for reducing Libya's growth rate from 3.4% in 2008 to 1.8% in 2009, which was the worst performance since 2002 when the economy shrank by 1.3% (IMF, 2009). As a result, the country's economy has suffered severe setbacks in their efforts to meet their millennium development goals by 2015. Therefore, reducing risk is the key issue behind achieving the diversification objectives by the time GDP, employment, and other economic variables are generated from non-oil sector, thus a severe fluctuation in economic activity is mitigated (Al-Kawaz, 2008). In fact, as soon as Libya furthers its economic diversification by stimulating its non-oil sectors, the volatility in the economy's growth will in turn start to decrease.

A key finding that can be interpreted is that, whatever the prospect for the petroleum rents and the extent of their exposure to the unpredictability of international markets, it should be always noted that the degree of vulnerability experienced by the national economy is due mainly to the limited productive capacity of the Libyan economy. This vulnerability of the Libyan economy to fluctuations in oil prices can be seen in growth volatilities across not only oil, but all the other sectors that contribute to the bulk of economic output and

employment. As a result, high level of volatility may undermine sustainable economic growth, due mainly to economic shocks often having long term negative effects. Another rationale for greater diversification is to reduce macroeconomic volatility. There is ample empirical evidence such as Collier, et al, (2010) which stresses that prudent fiscal policies are a key to insulating the economy from external shocks, and can mitigate the impact of volatility on growth, by allowing more efficient allocation of resources across economic sectors in the face of greater uncertainty. Flexible labour markets also help cushion the impact of shocks on employment and, thus, on domestic demand and growth (World Bank, 2006).

With the overall objective being achieving sustainable growth rates that are less sensitive to changes in the oil market, thus, it appears likely that any further development of the country will continue to depend on oil revenues, and the economic diversification strategy will take some time to decrease dependence on oil. Whether its current level of growth can be sustained in the long run will depend on the success of otherwise or such an attempt.

8.2.3 The Inability of the Petroleum Sector to Provide Sufficient Jobs

Whatever the prospect for the petroleum rents and the extent of their exposure to the volatility of international markets, the one critical issue that the expansion of the petroleum industry cannot solve directly is the country's severe unemployment. One more key problem is that, though real achievements in the context of development arose from oil sector; it cannot disguise the fact that the oil industry alone will not be able to meet the desired levels of job opportunities. The high level of government employment has been reflected in the structure of unemployment. One-third of employment was in public sector and the State has failed to make reductions in terms of relative employment by any significant amount. In other words, the economy in the country has not yet reached the

degree that can allow it to overcome the issue of unemployment experienced by the mono economy.

The lack of employment opportunities for nationals can be traced back to the domination of the economy by the state, a mismatch between the skills of workers and the demands of the private sector, as well as insufficient labour productivity, all of which limit demand for Libyan workers (IMF, 2013). Available data from the Central Bank of Libya and the IMF suggest a slight decrease in productivity for oil and gas between 1999 and 2009, with greater declines in other areas. In 2003, the GDP per worker in the oil and gas sector was US\$D 345,000, but less than US\$D 22,000 in every other major sector of the economy. Oil production in general is an extremely capital-intensive activity with a high level of labour productivity. Libya's economy is dominated by oil and the state with the public sector employing 85% of the workforce (IMF, 2013). The large share of this sector in the Libyan economy therefore tends to overstate the underlying level of productivity. The formal economy is characterized by relatively small numbers (43,000) employed in the oil sector, which produces most of the country's wealth, and large and growing employment (840,000) in public sector. It appears that the wealth created in the hydrocarbon sector is redistributed through extensive 'welfare' employment in the public sector, making it much less productive. Internal experts believe that productivity growth outside the oil and gas sector is extremely low, with a senior government official at National Planning Cancel (2010) suggesting that it is 'likely to be little more than zero.' Several studies and data corroborate this view. The World Bank estimates in (2006) put the average annual growth in the productivity of labour in the non-oil sector at minus 2%, with negative productivity growth in manufacturing, agriculture and services since the mid-1990s. There is no evidence so far to suggest that this lag in productivity has changed.

This finding make sense from the perception point of view, and in the line with other academic literature for instance Karl (2007) clarified that “the enclave nature of the oil industry combined with its capital intensity fosters especially weak linkages to the broader economy and does little to create employment. Because oil is the world’s most capital intensive industry, the sector creates few jobs per unit of capital invested, and the skills required by these jobs often do not fit the profile of the unemployed. If growth in the oil sector had a significant effect, this would not be such a great problem, but the productive linkages between this sector and the rest of the economy tend to be weak” (p, 663). This makes economic diversification not only a priority, but a survival strategy.

8.2.3.1 Thematic Analysis

Over the past four decades, Libya has relied on the government and on state enterprises for employment creation. If initially this approach was successful in creating jobs, in the last 10 to 15 years, rapid population growth and a youth ‘swell’ in particular has made it impossible for the public sector to provide enough jobs to keep the unemployment rate under control. According to the National Authority of Information and Documentation (2008), Libya was struggling with an unemployment rate of 30%. At the same time, the private sector has not been able to fill the gap given the wider problems which business faces in general in Libya. Additionally, corruption and a lack of transparency in both the public and private sectors has hindered competition and lowered efficiency, further complicating the ability of the formal sector to create employment opportunities (African Economic Outlook, 2012). Given the recent instability, as well as the former government’s previous practice of under-reporting unemployment, it is impossible to provide accurate figures on youth employment. The informal economy accounts for most of the remainder, given its flexibility including the relatively low wages that employers can offer, as well as their ability to avoid labour laws such as working hours’ regulations, severance packages and other benefits. The rigidity and inefficiency of the

private sector is certainly a source of the high level of unemployment in the country but the mismatch between the skills taught by the education system and those demanded in the market place has a large role to play, especially in youth unemployment. Libya has invested a great amount in access to education, as demonstrated by high literacy and enrolment rates, but it has been less successful in improving the quality of education (Otman and Karlberg, 2007).

The training of educators has been limited and in general the system focuses on memorising facts rather than building problem-solving skills. As a result, employers prefer to employ those with work experience rather than those with advanced degrees. The rise in youth unemployment has also resulted from the tendency of those who are well educated to pursue careers abroad. Such a ‘brain drain’ is damaging, since it creates negative returns on education investments while at the same time decreases the ability of the home country to develop ‘high knowledge’ and productive industries (IMF, 2013). In addition, many young Libyans are unwilling to take jobs that are not considered “prestigious” or require intense labour. The social stigma associated with labour intensive employment, as well as high salary demands, is a result of a general expectation that the public sector will be able to provide young graduates with employment opportunities.

This means that the main problem of unemployment is that the employees available do not have the skills or knowledge needed to fill available jobs. Furthermore, some SMEs in Libya do not have sufficient capacity to invest in oil industry because they operate at a low cost, which makes their capacity for job creation limited within the Libyan economy. Over the past thirty years, the Libyan government has lacked a comprehensive strategy to promote youth employment. The expected level of non-oil growth in light of the implementation of current policies which are made without coordination is much lower than the capacity in Libya, and would not be sufficient to generate the jobs needed to resolve the problem of the current unemployment and entrance to

labour market, which is witnessing a rapid increase (about 3% to 4% per annum). At the same time, the expected trends of dependency of Libyan oil underline the fiscal deficit from non-oil remain very high at roughly up to 45% of the total GDP, and this is economically unsustainable in the long term (IMF, 2006). Thus, as long as the petroleum sector remains the main economic engine, growth alone cannot reverse the trend of rising unemployment. As noted before, while the value added of the petroleum industry represents more than 60% of the country's aggregate GDP, its contribution to employment when counting in all petroleum-related activities is less than 2% (Aissaoui, 2009:9).

The employees which are currently estimated at a 1.8 million workforce (IMF, 2009), are likely to grow at 2.5% annually over the medium term. Workforce growth is also likely to be bolstered by greater contributions from the female workers given their current low levels of participation, it is estimated that, based on the projections given by respondents' the non-oil productive and services sectors would need to grow at a rate of 4-5% annually to be able to absorb new entrants to the labour market, and to avoid an increase in the unemployment rate. Further higher growth rates of almost 5-6% annually will be needed up until it becomes possible to reduce the current rate of unemployment (30%) to the level of 10% over a period of ten years.

Hence, economic diversification becomes imperative not only to get rid of oil dependency, but also to create more jobs for raising the number of unemployed. Therefore, the public sector may continue to be a source of employment for a relatively large proportion of the population in Libya, though it is unlikely (and undesirable) that it will be a leading source of job creation in the long period. Low worker productivity suggests that public sector employment will not be sufficient to absorb the currently unemployed and new graduates queuing for government jobs.

For Libya finding ways to develop services sectors is crucial for widening the scope of job creation. Firstly, the public sector, the largest employer in the region, has reached a saturation point in almost whole country. Going forward, rapid job creation in the public sector is likely to hold down aggregate labour productivity and deprive the private sector of the skilled labour it needs to grow. Secondly, rents from natural resources have been an obstacle to the development of manufacturing industries because of currency overvaluation leading to low profitability for tradable manufactured products (Rodrik, 2005). Thirdly, agriculture has become a minor source of labour absorption and is expected to continue declining as a share of GDP with income growth and technological advances. Thus, the services sector is the most promising source of job creation in resource rich countries (Diop and de Melo, 2012). The analysis in chapters four and five suggests that the declining share of services in the non-oil GDP of Libyan economy is linked to the large rents generated by natural resources. At first glance, this finding appears inconsistent. Indeed, that domestic service sectors can be developed in resource-rich countries has been taken as granted for a long time. This belief was underpinned by theoretical considerations. Engel's Law effects in consumption imply that demand for services tends to increase with income because of higher income elasticity of demand for services relative to agricultural products (Chenery and Syrquin, 1975).

Typically, as countries become richer, the share of agriculture declines, giving way to a rise in the share of manufacturing and services. This often happens because of technological advances in agriculture, which increase agricultural productivity and drive resources out of agriculture toward manufacturing and services. With open and well-functioning markets in place, private investment would take advantage of unrealized potential for growth and diversification. High per capita oil revenues may exert pressure on labour costs, but they also create potential for growth in non-traded sectors, such as construction and services. Service is a good example of a sector where Libya presents unrealized

potential in comparison to other oil producing countries. It is well positioned to develop tourism and services (IMF, 2013). Growth of services would hold benefit for job creation. Growth in services will directly create employment for Libya's population. The potential for direct job creation is important, because in Libya services provide jobs to a relatively smaller fraction of the total employed population compared to countries with a similar level of per capita GDP. Moreover, efficient services especially in transportation, trade, and information and communications technologies (ICT) will improve efficiency and productivity growth in the industrial sector of the economy, and thus contribute to a much needed improvement in competitiveness. The competitiveness of the tourism sector, which has great potential to expand, will also be enhanced. Efficient services are thus an important precondition for an increase in private investment and job creation in the economy as a whole.

In view of the above discussed, to enable an economy to make use of its economic available resources effectively, the importance of the above three mentioned considerations, i.e. uncertain and unpredictable external risk, run out of resources, and lack of employment have to be fully addressed in almost all standard measures of diversification.

- a. Over the longer term, Libya needs to prepare for the post-oil period, taking into consideration that technological changes could significantly affect the demand for oil even before reserves run out.
- b. Previous oil price slumps have highlighted the risks of oil dependence to Libya's government.
- c. Libya is also keen to diversify because oil and gas provide few jobs, and the country's fast-growing young population can no longer be absorbed by the hydrocarbon sector (oil and gas).

8.3 Weak Performance of Non-Oil Reflects Limited Diversification in Scope

In a viable economy, labour distribution should support growth, and employment tends to be balance across a variety of portfolio sectors. Overall, employment distribution across sectors generally reflects and shapes GDP distribution across sectors (Shediac, et al, 2008). However, in Libya's economy was not the case, where the employment is distributed quite unevenly, and skewed toward low-value-added sectors, such as government. In effect, Libya has two economies a high value/low employment oil and gas sector, and a low value/ high employment non-oil sector (Porter and Yergin, 2006). According to the best available data, the oil and gas sector contributes more than 60% to Libya's GDP, but employs only 3% of the formal workforce, despite the fact that employment in the sector grew an estimated 10% between 1999 and 2009. On the other hand, public services, including education and healthcare, contribute only 9% to Libya's GDP, but employ 51% of the formal workforce. In addition, the public sector workforce is not well allocated and focuses on low value actives. Employment in public services doubled between 1999 and 2009, while overall formal employment grew by only 12% (African Development Bank, 2009). The agriculture sector absorbs 8% of the workforce, while only its contribution to the GDP in 2005 was 2.8% (the Secretariat of General People's Committee for Planning, 2007). Agricultural industry currently only contributes 2.8% of the Libyan GDP, though this is attributable to the scarcity of water, and the harsh climatic conditions.

The main objective of Libya economic diversification is to promote growth and job creation in the non-oil sector. Creating enough jobs for Libya's rapidly growing work force will require significantly faster growth in the non-oil sector. As was pointed out earlier, job market pressures are fierce due to the massive inflow of young generations and, to a lesser extent, a rising participation rate for women. Despite the non-oil sector having slightly grown over the period of 2005-2009 (5% on average in real terms), mostly driven by high oil prices, its

job creation potential has fallen far short of the needs of the job market for nationals. The major share of non-oil sector activities is not very rich in employment (downstream oil industries) or their development potential is relatively limited (low value-added services). Libya's non-oil sectors contribute less than 40% of Libya's GDP while employing 97% of the formal workforce, which is an extremely low level of productivity. In the past decade, there has been no significant improvement in the efficiency or productivity of business enterprises outside the oil sector. A cross-country analysis shows that Libya's GDP per capita is much higher than its Business Competitiveness Index (BCI) would suggest it should be. If oil wealth were to be discounted, Libya would have very low GDP per capita, given its current level of business competitiveness (Porter and Yergin 2006). More so, the growth of labour productivity in the non-oil sectors has also been negative. The low capital productivity observed in Libya may, to some extent, reflect the use of capital-intensive methods of production a heritage of the command economy of the past. In interpreting the above data it must be borne in mind that Libya's structural rigidities (dependence on oil, low absorptive capacity of capital in the non-oil sectors) are likely to remain, furthermore underemployment is still rampant as the country's population grows rapidly (at 3.5%) creating further imbalances on the labour market (Bergs, 2004).

Prior to part three of the questionnaire items, was a section dedicated to surveying whether or not the non-oil sectors had decoupled from the oil sector. The finding that can be discussed and interpreted according to the perceptions of respondents, is that economic diversification into non-oil, in both the productive and service sectors, was inadequately performed, and did not exhibit any signs of likely improvement that would enable the country to reduce its dependency on oil. The finding presented in chapter five, in which we found that diversification efforts made by Libya were ineffective to some measure in increasing the non-oil income.

It has been made clear from the data analysis presented that the sector has changed and its role has slightly grown in the economy, however its contribution remains limited in the three significant measures of diversification. This finding is consistent with Auty's (2001) concern about a resource drag on growth arising from the limited possibilities of diversification within commodities. This is quite apparent in its contribution as a percentage of GDP growth has remained low and stagnant at around 4% per annum with limited absorptive capacity for employment generation, and hardly any private sector expansion. In our survey almost every respondent interviewed was not optimistic about the pace at which reforms will be implemented in reality. Their pressing concerns were attributed mainly to the fragile slow process of structural change in the Libyan economy. Thus, the production in the non-oil sector has been evolving at a relatively weak pace due partly to diversification policies often not being complemented by required reforms in the private sector, and not being accompanied by structural change, therefore non-oil remained largely ineffective (African Development Bank 2009).

Further insights from literature review made known two main causes having been identified by Basher (2010) that poor performance in non-oil sector and weak GDP growth reflects both inadequate investment and low productivity at about 16.7% of the non-oil GDP on average. This weak investment effort led to holding back non-oil growth, but an additional drag on growth comes from poor productivity as reflected in the very high Incremental Capital Output Ratio⁷, (The Inverse of the Marginal Productivity of Investment) "ICOR" which remains at a rate of 60% indicates a low return for non-oil sector investments (World Bank, 2006). Diversification is seen as a way of preventing such decreases in productivity by broadening the economic base of a country. In

⁷ The GDP growth rate in the non -oil sector can be calculated as the ratio between the investment ratio and the ICOR, for a given investment ratio, the higher the ICOR, the lower the growth rate is (World Bank, 2006).

literature author such as Page (2008) and Hesse (2008) both put great emphasis on this argument, through its focus on productivity enhancement. In spite of the fact that higher investments could in principal, increase Libya's output growth the outcomes indicate that, a mere increase in its scale would not lead to sustained positive growth unless accompanied by sustained productivity gains. One factor that might account for Libya's poor productivity, however, it's relatively small size of private sector and the dominance of public sector. The Libyan economy is still suffering from weak and low productivity in the non-oil sectors, which has reached -2% as estimated by the IMF in (2009), meaning there has been a negative growth rate in the productive sectors of agriculture and industry due to several aspects including:

- 1- The ability to attract foreign investments, it is still limited and its incentives and facilities. The available data indicate that despite some foreign investment has taken place, but 80% of these funds were in the oil and gas sector.
- 2- The ability to compete in foreign markets is still very limited, thus, the domestic product are still not able to gain access into foreign markets, because they seems to be in its infancy, and requires a lot of effort with respect to global standards market.

There was a little incongruity among a few other participants (12.9%), whom selected in their answer that non-oil sectors were relatively developed. Growth in non-oil sectors reflects spillover effects from increased oil receipts however these positive rates of growth were not lasted (not sustained), they have not reflected real economic growth in those sectors, but rather it has affected from increased oil proceeds. The mentioned economic recovery can therefore not be regarded as an indication of a sustainable development path. Thus, some forms of growth cannot be considered as inherently sustainable, because they are dependent largely on oil dominant fortunes in the global market, which is a paradigm that Libya has to avoid.

Poor economic diversification the over reliance on a single dominant economic sector has an unfavourable effect on the productivity and competitiveness of other lagging non-oil sectors. In Libya, as in oil other oil-producing economies, strong productivity growth is constitute a necessary condition for diversification in order to compete outside the oil sector. However, large oil revenues often make the Libya's task very difficult in achieving competitive diversification outside the oil sector in trade goods. These revenues tend to exert pressure on domestic costs and currency exchange rates, thus inhibiting competitiveness (World Bank, 2006). The rise in revenue always goes with the desire to increase or expand spending but not for diversification. Consumption rises and investment declines. Other variables in the economy tend to be affected negatively. For instance, at the initial stage, the domestic currency will appreciate rapidly and depreciate greatly at a later date. In addition to the above problem, unemployment will rise due to movement of labour from the dwindling sectors to the growing single sector. This development tends to eradicate other sectors of the economy. This is the source of the decline in competitiveness of tradable goods, and hence their decline and the associated "Dutch disease" effect (Polterovich, et al, 2010:3). This common sense may be particularly true for Libya, where high per capita of oil revenues would tend to increase real wages in the long term. In this regard, it's imperative for competitiveness to be encouraged by robust growth of labour productivity by improving the efficiency of institutions, and continuous improvement in labour force skills. Therefore, the need to diversify an economy cannot be overemphasised. A diversified economy increases investment in the economy as more and more sectors of the economy are brought into focus with widening economic activities. Thus, the discovery of primary materials should not be seen as a means to abandon other relevant and important sectors of the economy.

Having discussed the key economic factors, and their relevance to the case of Libya, this draws attention to a new line of discussion that looks at how many of these likely issues mentioned above can be avoided or at least significantly mitigated. Although there was a well-known feeling among respondent's that economic diversification can be an effective way to reduce the negative effects of dependency on oil, however, the main question needing to be answered is: how can be stimulated?, which has received little attention in previous Libyan academic studies. This seems to have resulted from a lack of evident understanding of the nature of economic diversification. Therefore, a more diversified economic structure is something that in principle is desirable, but it has proved to be extremely elusive, due mainly to choice of projects which don't have value added returns for the economy.

8.4 Potential Economic Sectors of Diversification

Based on the findings of respondents' perceptions and their indications the research underlined four potential industry sectors that could lead social development and economic growth in Libya. In order to diversify the economy away from oil, these non-oil sectors were considered as the engine of the Libyan economic growth which could contribute to the creation of an integrated economy. The non-oil economic sectors those are likely to contribute a greater proportion of the GDP if they efficiently exploited economic factors such as, geography, and climate invested optimally in those factors. The aim is to explore how the structure of Libya's economy is likely to change over the next decade. It also will help highlight the potential economic opportunities for Libya, which, if achieved, would transform Libya into a thriving diversified economy; building from oil into tourism, manufacturing, banking and other new areas, with the anticipation the non-oil GDP will be sustainable in the long run. These clusters represent a promising area that Libya can emphasize for diversification away from primary or processed commodities. They were selected on the basis of their current size and future potential to provide added value.

The economy must effectively allocate the resources available in sectors such as tourism, manufacturing, the banking and finance sector, and the SMEs programmes. For instance, the tourism industry is greatly important in most countries around the world and contributes effectively to these countries' gross domestic product. In Libya, tourism would play the same role, as there are many viable of tourist attractions. This sector would provide two positive impacts on the economy. Firstly, it would increase production and income. Secondly, it would increase employment because the tourism sector is a labour intensive. This means that an increase in production is usually achieved by an increase in employment. The finance and insurance sector on the other hand sector instrumental in generating output and at the same time supporting the rest of other sectors, with the possibility of becoming the regional financial centre supporting trade and international exchange in the region. The industry sector could also play a significant role if there was a clear strategy aimed at modernizing the sector and creating ways to develop industries that have the means to achieve success. In commodity-exporting countries, the oil sector often lacks direct structural linkages with the rest of the economy. Identifying the nature of sector can help foster our understanding of the non-oil long-run economic viability after natural resources are entirely depleted (Arezik, et al, 2011).

Indeed, it was believed that these sectors (industries) were able to induce further investments both in upstream and downstream industries through backward and forward linkages. It is necessary to promote those industries most suitable to the country, in terms of a comparative advantage, and which have strong backward and forward linkage to the domestic economy. The term 'linkage effects', as proposed by Hirschman (1977), refers to economic expansion in a given industry resulting from the development of another industry. Key sectors or 'leading sectors' are defined as those whose backward and forward linkages are greater than unity, as explained by Hirschman (1977). The extent of the strength

of backward and forward linkages of sectors in an economy is usually used to identify leading or key sectors in that economy.

The identification of tourism sector in Libyan economy received a substantial preference priority by the stockholders perceptions on the basis of its strong linkage to other sector and good prospects of ‘multiplier effects’, i.e. the income, and employment. The tourism sector’s potential stems from its strong backward and forward linkages with the rest of domestic economy makes it important for economic diversification and economic growth (Honeck, 2012). The research has underlined the importance of the tourism sector as it is more likely to generate growth and provide job opportunities for Libyan people due to its ‘multiplier effect’.

- a. Linkages to other sectors: A long established criterion in development planning is prioritizing those sectors that are linked to a broad spectrum of industries supplying inputs. Investment in one industry not only creates new production and employment directly, and it also indirectly stimulates growth by increased demand for raw materials, energy, transportation and other inputs.
- b. Job creation potential: Given significant unemployment and underemployment, we look to three sources of job creation from encouraging investment in a sector: a) direct employment in the expanding sector itself, b) new jobs created by rising demand from the linkages discussed in the earlier chapter, and c) a regional income multiplier whereby rapid growth of higher wage jobs will support expansion of local service sectors.

8.4.1 Tourism Sector

The need for the diversification of the Libyan economy from over-dependence on oil to tourism cannot be overemphasised. There is no doubt that Libya has a large and diverse quantity of tourism stock, which could make it a destination for many tourists and local and foreign investors. Thus, the development and prosperity of the tourism sector in any country (including Libya) depends on the availability of many other requirements, notably, the availability of a suitable infrastructure for tourism, represented in hotels and tourist villages, restaurants and cafes, marketing and promotion strategy, transportation and other requirements and services provided to a high degree of quality.

Comparative advantage given Libya's Cultural heritage is one of the main drivers of tourism; Libya has rich natural resources, a strong archaeological history, climate condition, and long beach (approximately 1900 Km) alongside the Mediterranean Sea close to Europe, and cultural assets representing different fundamentals of tourism. These strengths can be used as elements of a tourist attraction, and activate of this sector and thereby count it as one of the sources of national income, this can be determined by such strengths points (elements) as follows:-

- a. The diversification of tourism product: Libya has a wide geographical area and great diversity of terrain. It also presents a rich cultural heritage and possesses rich and varied of cultural tourism resources. Libya has a long history which can be traced back to the Phoenicians, the Greeks and the Romans who all dominated Libya prior to the Christian and Islamic eras. In recent times it has experienced Outman and Italian occupation before it gained independence. These civilisations have left behind sites that form the basis of today's tourist industry.

An archaeological site: For instance Libya's virgin beaches with 1,150 miles of beaches. Libya also has a plethora of possible tourism projects: the

verdant Green Mountain area in eastern Libya, in which the world's largest sustainable region is located; the Sahara Desert and oases; and rural areas with vast potential but little investment until recently. These sites include Roman ruins at the City of Leptis Magna, the Theatre of Sobratha City, and many archaeological Greek ruins on the Eastern coast, such as the cities of Sousse and Cyrene. In addition, there are prehistoric inscriptions in the caves and some unique valleys and mountains, and also in the city of Germa in the south.

- b. The Impact of Tourism on Domestic Economy: The direct impact which this sector tends to create in economic activities would reflect in its contribution to the public budget revenues of the hard currency. The positive effects of tourism on the economy are usually captured by the concept of "tourism multiplier" (jobs and income), which is the sum of direct and indirect impacts. To ensure that tourism provides employment and income opportunities in the long run and contributes to sustainable development, its operations, including the activities that are linked with it, must be sustainable. A prominent feature of tourism is its potential to create backward and forward linkages that are strong and diverse (UNCTAD, 2013). In effect, strong linkages catalyse a multiplier effect that can generate broad-based economic benefits at the national level as well as in situ employment opportunities. Backward linkages relate to the importance of tourism as a demander of inputs from other industries, including a wide range of agricultural and manufacturing goods, and a variety of services, e.g. construction, telecommunications, energy and water and sanitation. Forward linkages relate to the importance of tourism as a supplier (or input) to other industries. These production linkages reflect Hirschman's (1977) belief that the evolution of industrial development may in part be described as "one thing leads to another". That is, the commodities sector requires inputs and produces outputs as intermediate products for other sectors. The resulting

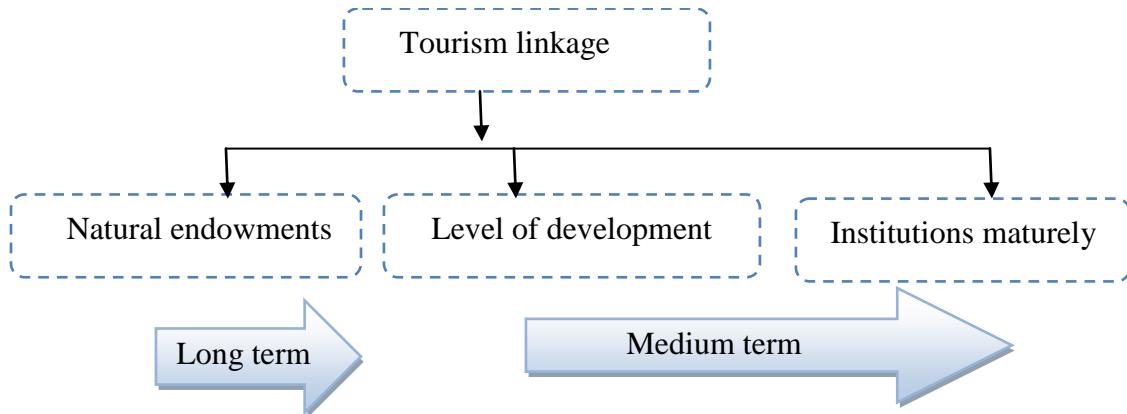
supply and demand response flows directly from the resources sector and, in turn, creates its own supply needs and output which feeds into other sectors. They provide a potential path for industrial diversification through the use of resource rents (Farooki and Kaplinsky, 2011).

According to Hirschman, the relative desirability of the growth of various economic activities may be analysed through considerations of the structural independence between any activity and all the others. He specifies two inducement mechanisms through which one activity gives stimulus directly and indirectly to the others: the backward linkage effects and the forward linkage effects. He argues that the most useful industrialisation policy would be to encourage those industries (sectors) with potentially higher combined linkages, because this would provide the maximum inducement to other sectors to develop. Thus, facilitation of forward and backward linkages as the output of one activity becomes the input of another, thus upgrading the value-added produced locally (Hvidt, 2013). Tourism is also labour intensive and an avenue to create employment, it needs relatively short training and skills acquisition as compared to other sectors and if the required infrastructure is provided, it can enhance the development in Libya.

Indeed, a study of the tourism sector in Indonesia by Geloso et al (2007) found that linkages (both backward and forward) were particularly strong for the tourism sector relative to linkage strengths for most other sectors, confirming tourism as a sector capable of stimulating broad-based economic activity. Making a case for economic diversification, Cattaneo (2009) argued that those other industries apart from oil need to be developed and the economy diversified, especially a service industry like tourism. Indeed, a number of countries have used dynamic tourism growth as a means of diversifying away from an overwhelming reliance on commodity exports and of shifting toward tourism in services. Yet simply fostering diversification by growing tourism services may overlook a potentially even more important facilitator for

diversification: using tourism as a vehicle to develop and diversify other parts of the domestic economy. The key is to take advantage of the manifold linkages between tourism and other sectors (World Bank, 2009).

Figure 8-1: Amenability of country determinants of tourism linkage:



Source: World Bank, (2009)

The available evidence from case studies points to a significant number of potential factors that can influence the extent to which tourism receipts benefit developing economies and help their diversification process. An endowment of a country with natural resources is evidently a major factor for tourism development. Libya has abundance of resources that can be diversified and enough to transform the socio-economic life of the populace. The level of socio-economic and infrastructure development of a country is another determinant of tourism success. Institutions can also play a crucial role in determining how well a tourism-centered diversification and growth strategy succeeds (Lejarraga and Walkenhorst, 2013).

8.4.2 Financial Sector

Ambitious diversification of its economy well posed financial sector development to contribute to this policy as a source of growth, employment and income. An extensive literature has identified financial sector development as a critical factor in inclusive economic development (e.g., Levine 2005 for overviews). The expansion of financial activities is not only important for financial sector development but also for its linkage to the real economy, especially in terms of expanding private sector investments and generating employment opportunities, both of which are vital for lessening the dependence on oil economy and oil revenues. As recognized in the literature and interpretation Hirschman's common notion of linkages "one thing leads to another (Hirschman, 1981)". Productive linkages principally concerned the provision of (non-tradable) intermediate inputs like physical, financial. The provision and expansion of productive linkages are critical if economies are to change their pattern of growth and development. The financial sector must aim to:

- Contribute to the diversification of the production base of the economy by financing projects in a wide range of sectors: industry, tourism, education, health and agriculture.
- Provide finance to small and medium-sized projects in the above mentioned sectors from domestic and international sources, and act as a guarantor for lenders and guarantee the exports of these projects.

The lack of access to credit has been identified as one of the impediments to growth (World Bank, 2006). In the absence of strong financial markets, the banking sector has to shoulder a major responsibility for Libya's rapid development. Easy access to capital is a fundamental requirement in a modern productive economy. The private sector (corporate customers) needs capital to invest in new business formation and expansion, and for the day-to-day running of business. The emphasis should be on efforts to develop a vibrant formal

financial sector that caters to the needs of the economy. Financial sector reform is critical to ensure that entrepreneurs and private businesses have access to finance (IMF, 2013). This finding appears to be a consensus in the literature to support this outcome. In a review paper, Levine (2005) stresses that financial development may influence growth positively in two ways. First, a more developed financial structure allows for better mobilization of savings and thus supports more investment. Second, within a more developed financial sector, available information on investment projects is treated more efficiently to boost investments in productive sectors. The financial sector also has a more prominent role in intermediating funds in the country. Libya's non-oil economic activity depends largely on government spending, which is in turn determined by oil and gas earnings. The intermediation of part of hydrocarbon windfalls through the household and business sectors might produce superior growth performance in the long run (Levine et al, 2000). The way hydrocarbon revenues are intermediated matters for economic performance. When the hydrocarbon revenues are exclusively intermediated by the state, as is the case in Libya, the pattern of expenditures and the amounts allocated to savings and investment may be different from the patterns that would prevail if the rents were transferred to the private sector.

Increased household savings out of oil revenue transfers would also funnel investment, if properly intermediated by the financial system, thus expanding productive capacity and output in the long term. Simulations for some countries have established that when a temporary windfall is intermediated by the government, the impact is likely to vanish almost completely in the long term. By contrast, with intermediation by the household and business sector the long-term increase in GDP might be sustained. Increased household intermediation of hydrocarbon revenues is an option that requires careful design and should go in tandem with considerable strengthening of the investment climate. Direct transfers of hydrocarbon rents to households should be appropriately designed

so as not to distort incentives to work. In addition, if the investment climate is weak, higher household and business sector revenues out of hydrocarbon windfalls may boost private consumption but fail to be spontaneously converted into productive investment (World Bank, 2006).

This risk may be especially relevant in Libya, whereas weaknesses in the investment climate, constraints to the efficient use of resources, and still poorly functioning institutions (including the banking system) hinder the mobilization of savings and private investment. Shifting to a different model of intermediation of the hydrocarbon revenues may thus help unlock the economy's long-term productive potential, provided the necessary reform initiatives to strengthen the investment climate and promote the efficient use of resources are phased in at the same time. Moving forward, a number of key broad economic trends will affect the intermediation function performed by the financial sector: Increased diversification in Libya's economic structure, where the manufacturing and services sectors will increasingly advance up the value chain towards higher value-added activities. Economic growth will be increasingly driven by knowledge-intensive and more innovative industries, and a larger pool of more advanced SMEs, with improved processes, product innovation and market outreach.

Estimate Libyan Banking Sector Efficiency: An advanced banking system is regarded a helpful catalyst, and is powerful in improving the efficiency of financial decisions and the better distribution of resources to ensure a continuous flow of funds for various economic sectors. It also facilitates exchanges and contributes effectively to stimulating the economy and thereby increasing economic growth and diversification of income sources. In order to measure the extent of development banking, as a set of indicators can be used to identify its evolution:-

1. The proportion of deposits to the GDP: The share of bank deposits (as % of GDP) provides the extent of access and deposit mobilisation the financial system offers. In Libya the ratio of deposits to the GDP reached 35% in 1990, and amounted to 51%, 40%, and 25%, in the years 2000, 2005, and 2010 respectively. This percentage is low compared to some other countries, in Jordan, for instance the ratio was 131% in the 1999, and in Singapore 126% for the year 2003, and in the Arab world this rate reached 50% of the total GDP of the Arab countries. This means that the efficiency of banks in mobilizing savings and financial resources in Libya was less than in some other countries (Bizan, 2009).
2. Percentage of credit to the GDP: The amount of bank credit to the private sector (as % of GDP) represents the general level of development in the banking sector. Private credit to GDP differs widely across countries, for instance, the percentage of credit to the Libyan GDP was 32%, 40%, 30% and 11%, during the years, 1995, 2000, 2005, 2010 which is low compared to Jordan, 78%, Egypt 68%, and Lebanon, 153%, Tunisia 48%, and Saudi Arabia 53% (Bizan, 2009), Meaning that there are problems of credit allocation in the Libya and weak financial regulation and supervision. The financial system in Libya has undergone substantial changes over the past decade, but remains shallow and bank-dependent. Commercial bank lending to the private sector increased from 2.2% of GDP in 1970 to 31.5% in 1990, but then declined to 21.8% in 2000 and 9.5% by end-2010. Furthermore, the share of credit to the private sector in total banking assets declined from over 40%to about 13.5%. Empirical results, in general, indicate a lack of relationship between financial intermediation and output growth (IMF, 2013). The doubling of private credit as a share of the GDP coincides with the increase in long-term growth by about two percentage points (World Bank, 2006). In Libya there are vast areas of ownership, so that the lending to the private sector is still very limited, and Credit GDP (total domestic

credit) constitutes a small fraction of the GDP compared to middle-income countries, including the oil-producing countries. Banking activity is the backbone of the Libyan financial system, but widespread State ownership has hampered the operations of the banks.

3. The ratio of credit to total deposits: This rate illustrates how important custodial opponents are in granting credit, where we note that an increase in deposits to commercial banks would lead to increasing the credit facility (this relationship is strong and in the same direction). This index indicates that the ratio stood at 91.9% in 1990 and then declined slightly over the years 1995, and 2000, then decreased significantly in 2005, reaching 43%, owing to the large size of the liquid assets of commercial banks and not to exploiting the surplus liquidity required for the granting of loans and credit facilities.
4. Density banking: The banking density (number of banks per 10,000 residents) reached 0.76% in Libya compared to 0.93% in Jordan, 0.40% in the Arab world, 0.25% in Egypt, and 0.82% in Tunisia, which is good compared to those states, but remains less than the density of a standard one bank per 10,000 residents (Central Bank of Libya, 2006).
5. The proportion of commercial bank assets to GDP: The percentage of the assets of the banks reached 60% of the GDP in 1990 and this percentage rose to 77% in 1995, but decreased thereafter and reached to 33% in 2005. This fall was due to higher oil prices in recent years, where the value of the gross domestic product (GDP) increased.

The desire for the monetary reform of the banking system stems from the necessity of contributions from this sector helping to diversify sources of national income to increase their share in the GDP. In addition to providing the financial instruments needed to finance economic activities by mobilising the

domestic savings, and making the role of intermediation financial between savers and investors more effective. Moreover, monetary reform is required for the existing banking system to increase its efficiency by reducing the volume of currency in circulation outside of the banks, and increasing the proportion of demand deposits, credit, freedom from interest rates, and an improved level of banking services.

Some studies conducted by the World Bank (2006) that have addressed the relationship between financial indicators and economic growth, have indicated the existence of a positive correlation between savings and the rate of economic growth. If the savings are high, thus, the rate of economic growth would be high. The findings of these studies concluded the existence a strong correlation between the development of the banking sector and economic growth. Therefore, an organized banking system would improve the efficiency of the financial sector, ensure the stable flow of funds to various economic sectors, and accelerate the factors that are leading to growth.

8.4.3 The Manufacturing Sector

In 1963, the United Nations Industrial Development Organization considered that manufacturing was key process for economic development, which would lead to funding a large share of national resources in order to establish a diversified and technically sophisticated local economy (Alrubai, 2004). This transformative sector produces both production tools and consumer goods and provides a high rate of economic growth and economic and social progress. In this sense, the process of manufacturing can be considered the engine of growth. The core of the process is manufacturing, it is not an extractive industry, as it has the ability to expand and diversify the productive base of the economy, provide the requirements of community and other sectors of consumer goods and productivity, and provide jobs and create more areas for training. Therefore, the improving contribution of the manufacturing industry to the national economy

depends mainly on the development and expansion of its activities and capabilities (Shochat, 2008). This can be achieved through two main approaches which are outlined below:

The first approach is to focus on the oil and gas related industries and expand vertically and horizontally. Their feasibility and profitability, an enjoyment of a comparative advantage to provide local raw material, namely oil and gas, and the rate of exploitation of production capacity in these industries is higher than the average in general. The second approach is to focus on small and craft industries, because of their relative importance in the output of the industrial sector, and their effective contribution in providing employment opportunities.

Implementation of various industry policies requires an appropriate system to protect the domestic economy's production from foreign competition; this creates a favourable atmosphere for local producers to invest their capital in industries that are protected. The economic theory in this context offered two main rationalizations for protection; the first is associated with the impact on the terms of trade for the benefit of the country concerned, which is known as the theory of optimal production. The second is concerned with the protection of emerging industries so that they can develop until these industries reach the level where they can compete with foreign goods. Then tariff duties and protection can be removed when the products of these industries reach the level of competitive production.

The first economic justification is unlikely for a small country like Libya, due to its inability to influence the terms of trade, and the small size of aggregate demand and supply. Thus, protection is a good way to develop domestic production. In this context, Libya has used tariff duties as an instrument of trade policy on goods imported, ranging from 20% to 40%, and have exempted a large number of factories from customs duties and income tax. Two main implications were reached in terms of the importance of the manufacturing sector:

Libya is a single economy, in which the oil activity is the biggest factor in moving the rates of growth. So, the fluctuations in world oil prices leads to fluctuations in the rates of growth of the economy, and thus Libya's economy needs to reduce the severity of this unilateral reliance on a single source for growth. This is even more important when that source is vulnerable to external shocks. The manufacturing sector is regarded as the most important sector able to change this unilateralism.

Oil revenues are the key engine for stimulating the economy, thus the oil abundance is reflected in the form of more income, either through direct transfers or by increases in the levels of wages and the expansion of jobs. All of these lead to an increase in consumer purchasing power in society, and therefore this means converting the surplus abundance of oil into increased import bills. Accordingly this would cause more pressure on the balance of payments and wealth leaks to the outside, due to the increased levels of imports. Therefore, it is more likely to be domestic industry which modifies the leakage of wealth and changes the balance to the positive side, especially as it would increase non-oil exports and thus adjust the balance of payments.

8.4.4 Petrochemical Industries

The development plans have pursued policies focused on basic industries, in which the Libyan economy has a comparative advantage in production, for instance, the chemical, petrochemical, and oil derivatives industries. Due to a limited local market therefore, the surplus production of these industries is directed towards exports. The aim was to treat the phenomenon of the dominance of the oil sector on exports (where oil exports account for about 99% of total exports) which makes the economy lack diversification. Therefore, the expansion of petrochemical industries and fertilizers, and increasing production to meet local market requirements is needed. The industry also needs to provide a surplus for export while establishing a series of integrated industries. These

would represent intermediate inputs to other industries in order to exploit the raw material available and ensure that manufacturing uses the largest proportion of those materials to increase the value added to the industry, which can help to diversify the industrial structure, and thus the structure of the national economy.

The main conclusion which can be drawn from the above mentioned is that the most serious problem facing oil sources are their finite nature and ultimate depletion, as a function in time (t) and the speed of extraction (s) of reserve. Thus, the dependence on oil has to be transformed into another type of reliable sector to finance, strengthen, or establish other permanent sources of income, even if their revenues are little today, as is the case with heavy industry and the manufacturing of oil and gas. One could say why, if oil is ultimately finite? The sensible answer is that these types of industry would establish a technical and knowledge base, with easier features, and more economic gains. This is important even if oil runs out (either by importing for manufacture, the development of other potential industries, or to create a labour force capable of competing with expertise elsewhere in the world).

8.4.5 Small and Medium Scale Enterprises (SMEs)

SMEs⁸ have the potential to be an engine of growth whilst at the same time reducing unemployment and ensuring an equitable distribution of income, and raising the competitiveness of the economy in, developing and developed countries alike. This can be attributed to their essential role in improving the quality of production, and increasing income to develop innovation, and support individual initiatives. They constitute the crux of the economic fabric, providing a non-negligible share of jobs and participating in the creation of value added

⁸ SMEs can be in any sector, however, in this research it would be one of the non-oil productive sectors, and because Libya's economic development should clearly target domestic economic activities. Given that SMEs seem to be more important as job creators than for GDP growth.

(UNECA, 2008). Their contribution is commensurate with the level of economic development and diversification of their respective countries. However they face many challenges and their small size and lack of market power makes them vulnerable in Libya. Three main rationales are proved to sustain the view that SMEs can be the engine for growth in Libya: Firstly, SMEs increase competition and entrepreneurship, consequently having the benefits of efficiency, innovation and aggregate productivity growth; secondly, SMEs are commonly considered as more productive than large enterprises (LEs). However, the financial market and other institutional failures hamper SMEs development. Thirdly, spreading out SMEs enhances employment more than large enterprises (LEs), since SMEs are more labour intensive. Productivity in the non-oil sectors is low, though there is a large potential growth in the service sector (World Bank, 2006). Unemployment is high (though uneven across Libya's regions) due to a shortage of jobs and reluctance of Libyans to accept certain jobs. The challenge is to harness these unemployed individuals into the labour market by creating opportunities in SMEs and by developing clusters both around Tripoli and in the regions.

8.4.5.1 SMEs in the Libyan Economy

The aim is to contribute to the diversification of the Libyan economy and the sustainability of growth. In particular, it's expected to help develop institutional capacity in Libya with respect to SME and entrepreneurship development and provide technical assistance existing and potential SMEs. Libya is a resource-based economy and such economies often face greater challenges developing their SME sector than non-resource-based economies. The networks and linkages needed for the development of a thriving SME sector are more easily generated in manufacturing value chains than in resource-based ones (African Development Bank, 2010). In Libya, where oil accounted for 71.3% of GDP in 2005, has an economy that is not diversified and not very open to the private sector. While it is true that, for some years now, diversification has been a part of government programme and the private sector one of its vectors, the fabric of SMEs is only just budding (UNECA, 2008). The low degree of diversification hinders the densification of national economic fabrics and as a result the development SMEs, to the extent in which this refers to diversification of production and exports based on products and services often have low value added, using intensive low skilled labour and involving limited technological content. The effects remain weak on the other sectors and on enterprises as a whole.

The economy is dominated by state-owned enterprises (SOEs) which are inefficient. Efforts to diversify the economy have generally started in the manufacturing sector. The major products they are manufacturing are petrochemicals. This added value to their exports and it also created jobs. The disadvantage of this is that it makes the economy even more dependent on oil. On the whole, the operations of Libyan companies are much unsophisticated by international standards in all sectors, both public and private, including small and medium-sized enterprises. This is because of the Government and foreign

investors' focus on oil and gas sectors. Such focus has not led to the enhancement of the rest of the Libyan economy (Porter & Yergin, 2006).

To date the value added contribution and growth performance of the SME and non-oil sector have been considerably lower than in the oil sector. Few and limited exports originate from natural resource-based activities. The Libyan indigenous private sector in general and SMEs in particular lack business know-how and face problems of economies of scale, and poor managerial, financial and marketing capabilities. In addition, whereas the macroeconomic environment is favourable and business taxes are relatively low, the overall regulatory framework still needs to be streamlined and improved. Transaction and start-up costs for developing and sustaining businesses are high, and uncertainty often prevails (African Development Bank, 2010).

The focus of the Libyan government has been on securing the country and not so much on creating an encouraging business environment, which must be the next main concern. The improvement of the private sector has been more problematic than anticipated, that is because of the underdeveloped financial system, insufficient infrastructure, ineffective public administration and the lack of supply of educated employees and workers. All of these circumstances keep out foreign ventures (Otman and Karlberg, 2007). Consequently, the domestic situation prevents Libyan business of access to experts, technology, know-how and resources. What is more, senior Libyan government officials believe that there are many of productive enterprise in the informal sector, where it is inefficient, risky and difficult to achieve scale. Most small enterprises have conducted their business outside the formal economy to avoid taxation and other fiscal and regulatory considerations (Porter & Yergin, 2006). A study conducted in 2003 shows that barely one-third of the enterprises registered declared their income statement in that year, suggesting that many of them are not actually in operation. The same study shows that the potential growth of the private sector depends on SMEs, especially considering that several fields of activity and

opportunity are under-developed, particularly in the service industry (UNECA, 2008).

In low income countries, there is a strong disconnect between the share of SMEs in GDP and employment. This is because demographics and the dynamism of SMEs are linked to the diversification of economies. In countries heavily dependent on a few commodities, as is the case Libya, SMEs can hardly thrive (UNECA, 2008). It seems that the relative contribution of small and medium enterprises to diversifying the Libyan economy, the non-oil GDP, creating jobs and contributing to the export sector to a large extent is modest. This is due to its concentration on productive activity in areas aimed at satisfactorily meeting consumer demands satisfaction, and activities characterized by the rapid circulation of capital such as trade activities and individual services, maintenance and repairs. Perhaps this can be attributed to the fact that development plans and policies pursued in the country were not adequate within its overall framework of an apparent strategy and objectives to achieve high economic growth rates, expand the employment and therefore provide new job opportunities by upgrading these projects.

There is a need to change the long-run decline in non-oil sectors by making them viable and profitable. The best way to do this is through the establishment of partnerships between the public sector and private enterprise, following oil exporting countries experiences in this regard, such as that of the Malaysia. Private enterprise has proved to be a powerful engine for economic growth worldwide, with the continuous creation and development of small business, some of which gradually grow to a medium or large size. A strong and active private sector with access to a well-educated highly skilled labour force will certainly find venues to broaden the export base as long as the business climate is favourable to domestic economic growth.

8.5 Libya Promoting Sustainable Economy

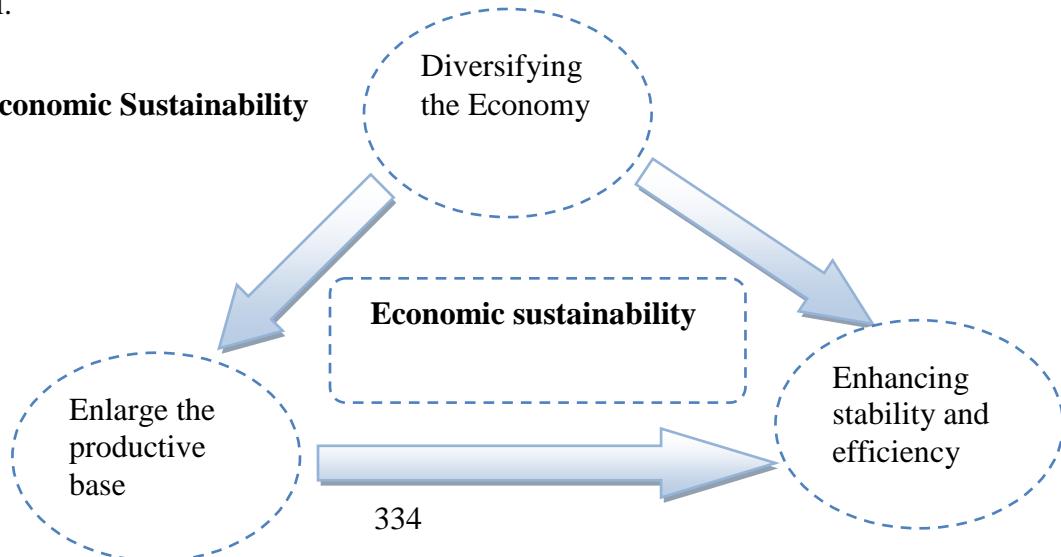
Libya, as a small economy, has no natural resources of value except oil, which currently represents more than 90% of the country's hard currency, and as mentioned earlier, the growth in the non-oil sectors of the economy has been extremely limited, highlighting the urgency for economic diversification which has now become essential. Indeed, the main task for Libya's policy makers is how to achieve a sustainable framework of diversified economy. Since the term 'sustainable' implies a stable and diversified economy, but sustainable economy has not been yet a Libyan feature. Solow (1974, 1986) and Hartwick (1977) derived the conditions necessary for economic sustainability in an economy dependent on a non-renewable resource, which came to be known as the 'Solow–Hartwick rule'. The rule requires non-declining total wealth, which is to be achieved by reinvesting some portion of the rents from the non-renewable resource in other forms of capital (assuming, among other things, that resources are priced efficiently) (Lange, 2004:260). According to him natural resources is an asset, which implies that extraction would simply mean portfolio reallocation. "In addressing the management of exhaustible resources, Solow (1974, 1986) and Hartwick (1977) showed that an economy would be economically sustainable if total wealth is non-declining" (Lange, 2004).

A 'golden rule' for the sustainability in the growth of national income and consumption in the presence of exhaustible natural capital is to reinvest resource rents into other forms of capital. Given that subsoil resources deplete over time, the national wealth framework suggests that income derived from subsoil capital be managed differently from returns on other assets to ensure the sustainability of the growth in national income and consumption. In his seminal 1977 paper, Hartwick offered a "rule of thumb" for sustainability: an optimal constant level of consumption can be sustained if the value of (net) investment equals the value of rents on extracted resources at each point in time (Hartwick 1977). To make an analogy with a firm, using natural resource revenues to finance consumption

is akin to a firm financing dividend payouts by liquidating its assets: both increase present income at the expense of future income. Instead, governments need to convert income from the sale of one type of asset (the depletion of natural capital) into other forms of capital (assets) that are capable of generating as much income as the natural capital that is being replaced. “Dividends” (consumption) should therefore be paid out of asset returns to ensure they are available to future generations (Verghis and Sander, 2013).

For a sustainable long term growth in Libya to be achieved need to consider the depletion of its resources over time and the volatility of world commodity prices in the short-run. Meeting the objective of sustainability in Libya’s economy will therefore require three mutually reinforcing directions. First, enlarging the value of the productive base, which is necessary to sustain prosperity in an economy accompanied with a growing population and expand potential for future generation. Second, protecting against economic instability and promoting increased efficiency. Improving efficiency and productivity growth is the precondition for faster growth and a greater investment effort. Indeed, faster GDP growth will come from efficiency gains and a turnaround in productivity growth. The third is working in partnership with the private sector to diversify the economy. The classification below reflects three different kinds of producible capital that is needed to sustain economic growth, in addition to natural capital.

Figure 8-2: Economic Sustainability



- a. First, saving and investment are obviously necessary to build up physical capital: as Libya's hydrocarbon income diminishes, alternative sustainable source of income must be created to encourage public consumption. This requires high rates of saving and a steady flow of dividends on investment for foreseeable future. Thus, depletion of any component of the productive base has to be compensated by investments of at least equal value in its other components.
- b. Second, macroeconomic stability encourages the accumulation of financial capital, i.e., financial depth, which helps lubricate the wheels of production and thus increases economic efficiency and growth. Relative economic stability is needed if investors are going to make long-term commitments to expand the national productive base. The pace at which the value of the productive base expands depends on how stability and efficiency influence the volume of investment and the returns to that investment and on how economic diversification expand opportunities.
- c. Third, efficiency of oil uses is fundamental for creating value, preserving and expanding the productive base and for encouraging diversification. The degree and pace of diversification of the domestic economic base depend on how efficiently resources are allocated within the economy.

According to Hamilton & Hardwick (2005) one means of implementing the Hardwick Rule, by ensuring that resource revenues are reinvested effectively. An empirical analysis suggests very few resource-rich countries followed the Hartwick Rule. The World Bank (2011) used a 25-year time series of resource rent data to estimate how much produced capital would resource-abundant countries have in the year 2005 if they had actually followed the Hartwick Rule over the last 35 years. In other words, they “constructed a ‘Hartwick Rule counterfactual’ to determine how wealthy, in terms of accumulated produced assets, would countries be in the year 2000 if they had invested resource rents as suggested by the Hartwick Rule since 1970” (p, 11). The result of this work

shows that no country with resource rents higher than 15 percent of GDP has followed the Hartwick rule. In many cases the differences are very large, highlighting how management of natural resource wealth can have a significant impact on growth. Nigeria, a major oil exporter, could have had a stock of produced capital four times higher than the actual stock. However, country like Malaysia did follow the Hartwick Rule, investing even more than 100 percent of its natural resource rents in produced capital. While consumption, rather than investment of resources rents is common in resource-rich countries, there are notable exceptions to the trend. According to World Bank (2011) resource dependence countries where has the Hartwick rule been applied, and that have invested more than the level of exhaustible resource rents, creating high capital accumulation. In this regard, an example of good practice is Indonesia and Malaysia stand out in this group, suggesting that the diversification noted in the previous chapter was effectively financed by resource revenue at the macro level. In other words, as an economy, Malaysia used natural resource rents for investment in productive capital rather than consumption (Verghis, and Sander, 2013). In fact, there is a sequence of actions that needs to be implemented if resource wealth is to be parlayed into sustainable growth and development.

In case of Libya, the sustainability of the growth path is largely conditioned on how fast Libya is able to diversify and enlarge its economic base. There is a clear and demonstrable link between economic diversification and economic sustainability. Hence, the Libyan state would need to convert their current substantial oil wealth into other forms of wealth by investing in non-oil, which is essential for a transition from an economy based on the primary sector to a more diversified economy. However, such a transition will be difficult and risky, and it is not likely to be achieved within few years' timeframe as projected by this study. This overarching objective will continue to shape policies over the next decade.

8.6 Summary Conclusion

A noteworthy number of participants' were quite knowledgeable in relation to the country over dependence on oil, and they expressed their concern about such a dangerous situation. Survey respondents' awareness was also indicated about to the nature of the problem reflected in the low growth of non-oil, and the lack of economic diversification. Arguments from a macroeconomic point of view point out that economic growth refers to the ability of a country to create more production and services. Thus, for long-run sustainable economic growth Libya's economy would need to foster growth in three significant measures, increase GDP growth, absorb a large capacity for employment, and greater role of private sector. Given that growth is not an inheritance for an economy, for Libyan economy to be sustainable the proper situation for growth should be created. Such growth would depend on the resources that Libya already has. Libya might be suitable to diversify into the manufacturing, tourism, and banking sectors. For instance, the tourism sector would fits well (beside the oil factor) into the frameworks needed for successful diversification and sustainable growth of the Libyan economy, particularly from the perspective of investment and job creation. In terms of economic potential, the tourism sector thus provides a strong candidate if Libya were to leverage its vast tourism assets effectively. The industry has significant diversifying potential and is an excellent driver of national and regional development and employment enhancement through the creation of many SMEs in the facilities and services areas in the economy. Despite Libya having little comparative advantage in manufacturing tradable goods, this obstacle could be compensated for very attractive assets in other areas, such as in the petrochemical industries of the oil and gas sector, in tourism, banking, and SMEs.

Chapter 9: Conclusion and Recommendation

9.1 Introduction

To conclude the discussion chapter and the chapters throughout the thesis shed light on the initial objectives of this study. It concluded that Libya's economy is in the middle of a process of transition. Genuine diversification remains a long way off, but the transformation of the economy at least remains on track and increased involvement with the rest of the world can only help the process of internal reform. Despite this progress in developing and diversifying the economy, the process is still underway and challenges still remain. The oil sector is in the middle of a period of change, while the non-oil sector is just embarking upon a process that eventually will change it beyond all recognition. Two problems have to be tackled: the need to maintain macroeconomic stability and to ensure that fiscal policies are sustainable, and the provision of productive employment for the rapidly growing labour force. There can be no doubt that the fortunes of the Libyan economy are to a large extent dictated by oil prices. The recent increase in oil prices and the accumulation of the country's wealth mean that Libya is at a crossroads between harnessing the opportunity to sustain long term economic and employment growth, and continued social development being rendered worthless through inefficiency.

This Chapter delivers the main conclusion of this research study on the prospects of diversifying the Libyan economy to achieve sustainable economic growth. The chapter is sub-divided into five sections to determine how the objectives of the research study were achieved. Section 8.2 explains the achievements of research questions/objectives One, Two, and Three, and the way these are linked to other various chapters. Section 8.3 represents the likely key challenges that have emerged in the Libyan economy. It also Objective Four

and links to addresses policy recommendations. Section 8.4 highlights the potential contribution of this research and determines the process of results dissemination. Finally, Section 8.5 underlines areas for future research investigations.

9.2 Review of the Main Research Objectives

This section reviews the main research objectives in order to determine if these have been attained and have contributed to the research outcomes. As outlined in chapter one the principal aim was to explore Libya's economic environment in an attempt to determine its capability to diversify its productive base. The research has two specific purposes:

- d. To highlight the significance of diversification and the role it would possibly play in strengthening and stabilizing growth dynamics in the Libyan economy.
- e. To assess the contribution of the current economic setting towards achieving rapid and sustainable economic growth through the appropriate utilization of oil revenues, which in turn will generate non-oil revenue for future economic development and prosperity.

In this context, the research attempted to achieve the following key research objectives:

9.2.1 Objective One

To identify how to diversify the Libyan economic base away from oil dependency, into other non-oil sectors to improve economic growth and performance.

This objective was achieved by undertaking a critical analysis of the relevant literature and preceding studies about economic impact of countries being over

dependence on one or few commodities as their main generates of income would bring about a erratic growth.

Chapter Two reviewed the theoretical views and empirical evidence in this field which are relevant to primary commodity based economies. These critical arguments considered wide academic points of view and demonstrated that the proceeds where gained from exporting one commodity do not always positively affect the country's economic growth, especially when this country is very dependent upon that particular export. An important finding which can be reached from the themes which have been discussed is that the country's oil based economy clearly differs from other developing countries that are dependent on a single raw material for their exports. Regarding this point, the chapter deliberated the possible secular decline of real commodity prices, the so-called Prebisch–Singer hypothesis, and the conclusion drawn was that;

- i. Rapid economic growth, together with relative price stability, is a principal objective of the single commodity exporting countries. Since the major oil boom period of 1973, significant achievements and crucial rates of growth have been made in GDP. However, these rates of growth started to decelerate and decline in the 1980s due to the deterioration of oil prices shocks. This reflects the importance of diversifying the productive base as a main factor to stabilize growth.
- ii. Another major common objective is the diversification of the production base. If diversifying the source of income is now possible, because of the availability of the oil resources, oil-based economies should always consider that this source of finance will be depleted. Thus, it is imperative for the economy to find alternative sources to finance their public budget, and also to achieve significant growth particularly in the non-oil sector. Underlying this objective is the specific recognition that oil revenues are finite. The economy's base will thus have to be expanded through product

diversification in order to make up for dwindling earning from oil. Since most oil exporting developing countries dependent on petroleum as a source of government revenue and foreign exchange, they are particularly vulnerable to fluctuations in the global demand for oil, and hence its price. This vulnerability increases their need for financial security through diversifying other source income of value-add sectors.

- iii. One important objective for Libya economy in the long run which has not been fully achieved is to reduce the oil sector domination of the economy. This objective cannot be accomplished simply by reducing oil production since increasing the growth, productivity and efficiency in the non-oil sector. Such independence needs the diversification of the production base.

Based on some common findings reached across the thesis, the solution may simply reflect the suggestion, encouraged by evidence, that economic diversification is associated with sustainable growth. This is because other developing countries like Indonesia, Malaysia, and relatively the UAE with substantial primary commodity-based economies have managed to diversify their economic bases effectively. One of the main lessons drawn from this prominent success story (which may enable Libya to identify trends and find solutions to its own national economy conditions) shows that factors such as institutional policies that enable countries to manage resource wealth well are important for their ability to diversify into other sectors. Many of these successful stories have led economists such as Gelb (2010) to believe that an oil based economy is in fact a blessing not a curse.

My opinion is that Libya should take the middle ground in implementing the reforms with more rapidity, but also following a more market oriented approach such as that taken in the Indonesia, and Malaysia. In particular, greater promotion of competition, faster human capital accumulation of the right form,

and a more vibrant private sector, in particular having robust SMEs, would be advantageous for Libya, from these other countries' experiences. Their experiences have also succeeded in managing oil wealth in a manner that allowed the concurrent development of the non-oil sector. It is critical that Libya designs and adopts prudent and coordinated macroeconomic policies and institutional reforms that take into account these countries' experiences in order to avoid the mismanagement of national resource wealth and its implications.

Since Libya is relevant analogue case to other countries' economies in terms of population, GDP, and other macroeconomic indicators, their experiences and lessons illustrate who to achieve meaningful economic diversification. The key finding reached from such case was that economic diversification strategies would only be successful if accurate sort of economic policies were put in place. An important lesson which can be learnt from these three examples is that when a country is totally reliant upon oil resources, it needs to successfully diversify into other lines of economic activity. One more lesson is that surplus revenues derived from the exploitation of oil resources have to be placed in safe investments. Only then can a country be optimistic achieving higher and sustainable economic growth.

9.2.2 Objective Two

To review and assess the existing level of economic diversification and its trend, which has been achieved so far in the structure of the Libyan economy.

In order to explore the present level of diversification, Chapter Four reviewed and analysed the previous efforts undertaken to diversify the Libyan economy and expand its base. We have realized in this chapter that prior to the first economic development plan, the government tried to consolidate the massive inflow of oil revenues to diversify its economic base and raise the living standard of Libyan citizens. However, these plans were interrupted by the negative consequences of the massive decline in oil prices. The authorities then embarked on a series of economic reforms in order to improve the domestic economic conditions. The results of these reforms were not noteworthy. So far the efforts aimed at creating what we consider to be true diversification have not yet reached fruition.

The findings derived from our assessment demonstrate that concerns about economic diversification started with a five year development plan adopted in 1973, which has experimented with several diversification strategies by investing hydrocarbon revenues in other sectors such as in agriculture and industry. However, the outcomes were modest, since the Libyan economy continues to be dependent on oil revenues. Therefore, this concern highlights the earlier awareness of the government to the risks of depletion which could compromise the future of the Libyan economy. Though the state recognized the economic consequences of being dependent on a single source of income, objectives for sustainable economic growth were very short sighted and disappointing (The track record since 1973 particularly in non-oil GDP, and the economic diversification).

In spite of the concerns expressed and the general policy direction, there has been limited success in translating these initiatives into tangible actions on the ground, thus, no real diversification has taken place. Our review of Libya's past experiences also found that the heavy reliance on the public sector did not help the development of private sector, and undermined the adopted diversification strategy. It appeared that government had played lip-service to diversification, and there was a lack of will to take this issue forward as a major economic policy.

To provide the researcher with a wide scope of knowledge on trends of diversification achieved so far, the research has made it possible to evaluate the efforts undertaken to diversify the structural of Libya's economy. Further evidence of the extent of such dependence was also provided by analysing whether GDP distributed across wide range of economic sectors, or a few. In order to achieve this particular objective, we measured diversification by evaluating the distribution of Libya's GDP across its non-oil economic sectors, to determine a "concentration ratio" and a "diversification level". Our initial analysis produced a significant key finding. The level of diversification wide-ranging widely across economic sectors, with the Libyan economy having high concentration ration in terms of sector contribution to GDP and thus low diversification quotient. This finding was not necessarily surprising because Libya's economy have been previously dominated by the oil and gas sector and although the relative contributions of non-oil economic sectors to GDP have shifted noticeably over the years, the oil and gas sector has consistently represented the largest share in country's GDPs. Moreover, registered growth in non-oil sectors, such as manufacturing generally has reflected not organic growth in those industries but, rather, spill-over effects from increased oil receipts and subsequent record-high inflows of capital. Needless to say, such types of growth cannot be considered inherently sustainable, because they

depend heavily on the dominant sector's fortunes in the marketplace a pattern that Libya would want to avoid.

A key conclusion that can be drawn from this on-going trend toward concentration is that the Libya's non-oil sectors have not fully matured and still have pervasive structural gaps, such as inefficiencies in labour, capital, and explore knowledge and technology in industries for instance manufacturing that were doing well as Rodrik, (2005) in this context asserted, so that it could diversify. In addition, this trend indicates that revenues from oil and gas are not being reinvested effectively. Yet, it has been unable to adequately distribute its GDP across a wide range of productive economic sectors, and its revenues from oil and gas still make up around a three-quarter of its domestic output.

9.2.3 Objective Three

To explore likely alternative resources that can replace oil wealth when it has been totally depleted, and therefore achieve a sustainable and bolstered level of growth.

This research objective was attained by adopting two main methodological approaches: a quantitative questionnaire survey and qualitative in-depth interviews. These were used as data sources to investigate four critical factors identified in the literature review: oil domination; and its degree of vulnerability to potential depletion; oil price trends and fluctuations; and inability of oil to create more job opportunities for the fast growing Libyan labour force. All of these factors being reflected in the weak performance of non-oil sectors. The conclusions on the prospect of the Libyan economy to diversify into non-oil sectors were derived from the analysis of the answers to the questionnaires, which were completed by representatives' sample, and from the in depth interviews that were conducted with senior Libyan public and private official's business.

On the whole, respondents broadly viewed that it is imperative for an economy to be diversified rather than relying on a single income source, especially if this source is likely to deplete relatively quickly as will be the case for Libya. The need for Libya to diversify its oil-dependent economy was further highlighted by interviewee because it is not possible to delay for years and years with an economy which is more than 90% of its earnings coming from oil. In order to amplify the reliability of the analysis, the findings derived from the respondents' perceptions were discussed and interpreted, and some likely solutions for many of these identified issues were offered in Chapter Eight. For instance, declining oil reserves and the reduction of the country's wealth highlights the pressing need to accelerate structural reforms to diversify the economy and facilitate sustained growth of non-oil sectors.

To conclude, the study set out to find the relationship between economic diversification and economic growth in general, and in the Libyan economy in particular. Three main arguments have been put forth to make a believable case for economic diversification, to convey a sense of necessity, and to suggest appropriate strategies. The first is the unsustainable path of growth for an oil based economy. The second is the difficulty of hydrocarbon sector creating a structural balance in output and employment. The third is the inability of the oil sector to provide sufficient jobs. Taking into account the modest size of Libya's oil reserves, the first two arguments are sufficient to justify a more diversified growth strategy. The third argument, which is the inability of a dominant and highly productive petroleum sector to provide sufficient jobs, should amplify the sense of necessity. However, whatever the policy motivations and orientations of the economic diversification strategies, it would be misleading to advocate reducing the role of the oil sector. Without its financial sway, no strategy could be implemented successfully.

9.3 A key Challenge Faces Libyan Economy

Libya is major oil producer country, but it is yet not totally developed. In other words, it has not achieved the level of sustained economic growth. Thus, the real problem facing the Libyan economy is its heavy dependence on oil. Being an oil producer, a country would experience a severe loss in its wealth if it did not seek to establish a feasible substitute. This can be seen by looking at the share of other economic sectors and their contribution to the GDP and total active labour force. Being economically dependent on one single commodity brings main challenges for country's economy, namely:

- 1- Making optimal use of the hydrocarbon financial resources, to facilitate the transition to a market-led economy, cope with volatility, and secure fiscal sustainability over the medium and long-term.
- 2- Enabling the “new economy”, led by the private sector, to gain strength a precondition for faster non-oil growth and job creation.
- 3- Management of oil revenues should be underpinned by stabilization and savings objective. As in most of oil-producing countries, the challenge in Libya is to stabilize budgetary expenditure in the context of high volatility of revenue, thus minimising the adverse effects of pro-cyclical policies. At the same time owing to the exhaustible and non-renewable of oil wealth, consideration has to be given to the accumulation of oil revenues so as to ensure the long term sustainability of expenditure and intergenerational equity.
- 4- In Libya's labour force employment is distributed unevenly. The public sector absorbs a large portion of labour, and the majority of workers are working in sectors that support other economic sectors, rather than driving growth. Despite Libya having a high per capita income in the region, most of the individuals fairly have low income. The foremost problem is a high rate of unemployment, especially among young people. Physical infrastructure such as roads and ports, and telecommunication networks

all are very poor. Public services sectors (education, healthcare and other services) are contributing only 9% to Libya's GDP, but are employing 51% of the formal workforce who have low skill levels. To address this problem, promoting and implementing public-private partnerships (PPP) would be favourable options.

Summing up, Libya faces a simultaneous policy challenge in the years ahead. It faces the challenging task of reducing its dependence on short-lived and potentially volatile oil revenue. It is vital to the country's economic future that the government manage this revenue in a way which allows the diversification of the economy, in order to ensure a steady increase in growth. The lack of non-oil resource income makes the economy vulnerable to oil price shocks. The challenge of macroeconomic policy in Libya, as an oil exporting country, is to stabilize budgetary expenditure and sterilize excess revenue inflows in the context of medium- to long- term sustainability consideration, and thereby provide an environment conducive to growth and overcoming unemployment.

9.3.1 Objective Four

To put forth some suggestions for policy considerations based on the findings of this research.

This specific objective considers the main question been addressed for research. In order to achieve this objective and tackle the research question based on the research findings, it is likely now to provide, in details, the appropriate suggestions in the form of key recommendations. Libya government can consider these recommendations to improve its ability to boost the diversification of its national economy.

9.3.1.1 Recommendations Addressed to Policy Makers

The main research question addressed in Chapter One was “Why is Libya’s economy still heavily dependent on oil revenues, and yet does not use the potential of its oil for exploiting and achieving sustainable economic growth?” With regards to the significant points highlighted throughout the previous chapters of this thesis, we have drawn a conclusion, which we consider meaningful, to underpin the Libyan economy, making becoming independent from one single source of income. Following recommendation is being suggested:

Based on experience and lessons from other oil-producing countries, there seem to exist three broad strategic options for using the large financial resources from oil as a means to foster non-oil growth: (i) Using accumulated oil revenues to expand public investment in infrastructure as a means to directly propel non-oil sector growth, but also increase household revenues and thus provide a multiplicative impulse to growth. (ii) Distributing oil windfalls to households, as a means of bolstering incomes and domestic demand growth, while possibly ensuring a better stabilization mechanism against oil revenue volatility. (iii) Saving part of the oil windfalls for the future; using the rest strategically to improve human capital and build strong social safety nets, while, at the same time, accelerating the pace of structural reforms needed for a transition to a market-led economy integrated with the rest of the world.

Because investment is one of the keys to accelerating growth and diversifying the economy, policy should be directed in to attract more investments from domestic and foreign sources. It could be argued that using surplus oil revenues to fund higher public investment may have a better growth pay-off than accumulating savings. Domestic investment has been proven to be an important ingredient for non-oil GDP growth. Policy makers should be concerned with the fall in domestic investment, as its ratio is too low to be compatible with rapid

and sustained growth of economic output in the long run. What is more (FDI) is still dominantly aimed at the oil and gas sector of the country, while investment in other sectors of the economy is not effective. Libya needs to further improve its business and investment climate and provide more guarantees to give confidence and transparency in policies, and legal and public administration. Previous studies have shown that increasing the scale of investment may not be as important as increasing its productivity, because all measures (labour, and capital) of productivity for Libya have shown a decline over the last two decades. Without an increase in productivity, it will be difficult for Libya to absorb its fast growing labour force and maintain the high standard of living of its citizens.

Maintaining long-term fiscal sustainability would require a savings strategy over time, because hydrocarbon fiscal revenues are exhaustible. Libya, as most oil producing economies, can afford the “luxury” of a large non-oil fiscal deficit to the extent the revenues from oil resources can secure a sufficient and stable financing over time. However, although in practice oil reserves may extend over a long period of time, based on inter-generational equity considerations, the country should eventually prepare for being an economy without oil. The savings strategy should aim at accumulating substantial assets, with an option in mind regarding the use of these savings in the long term:

- a. The income stream from the accumulated assets could be used to finance the non-hydrocarbon fiscal deficit once hydrocarbon resources have been depleted. In a sense, this strategy would aim at transforming an exhaustible stream of hydrocarbon revenue into a perpetual stream of financial revenue through appropriate savings over time. This would allow maintaining a large non-oil deficit even after the country runs out of oil revenues.

- b. Add a saving function to the Oil Reserve Fund (ORF) to reflect the non-renewable character of oil wealth-based on a conservative estimate of permanent hydrocarbon revenue.

A strong framework for budget formulation and execution, combined with expenditure discipline and sound practices for management of oil windfalls, would help meet several simultaneous challenges: Establishing strategic priorities in the use of oil revenues, to improve human capital and build social safety nets for the transition; Anchoring the transition on macroeconomic stability by insulating the fiscal stance from volatile oil fiscal revenues, and securing fiscal sustainability in the face of a possible fall in the price of oil, social expenditure pressures, and the contingent liabilities of the public sector. Macroeconomic stability is an important anchor of the transition as it allows Libya to:

- (i) Improve visibility and mitigate risks for investors;
- (ii) Hedge against external current account pressures in case of a sustained drop in the price of oil, which could put the reform program and Libya's trade integration at a risk of backtracking;

If the economy is to diversify away from the public sector and gain competitiveness while improving opportunities to vulnerable groups, the education system will need to adapt. Some of the issues that will need to receive policy maker's consideration include:

- (i) Reviewing governance, management and budget allocation processes to promote a continual focus on improving quality and efficiency in resource utilization;

- (ii) Improving the relevance and pertinence of programs at the post-primary levels to improve young people's chances of finding a job in the private sector and better respond to future market demands.

The services sector, in particular finance, telecommunications and information technology, also provides prospects for diversifying the economy and providing jobs for the nationals. A strategy may be developed to attract private investment in this area. The macroeconomic policy should be directed towards stability, balanced and sustained growth, reduction on oil dependence, opening up the economy and encouragement to private enterprise. The restructuring of public finance (as suggested earlier) and financial sector reforms are important steps in this direction. So are the reforms to update and revise the out-dated laws and regulations and strengthen institutions and systems to promote market friendly business environment.

Concluding Remarks

In near prospect years from today, Libya will have run out of oil. To prepare for this time it has two choices. The first choice is to continue down the current path. This path will lead to a 60% drop in GDP when the oil runs out, with the associated social problems and dissatisfaction that this will cause. The second path is to take steps now that will lead to a more diversified, private sector oriented economy so that when Libya's oil wealth is depleted the drop in GDP and in living standards is far less dramatic.

However, it will be important not to lose sight of what diversification policies can and cannot achieve. First, it must be clear that there is no miracle recipe for achieving diversification overnight. Promoting diversification is not an easy task, and thus should be seen as a long-term goal. It is a complex process which requires determination from policy makers. In the context of Libya, diversification remains a challenging task to be accomplished, because the structural changes in output and employment are too slow to be put in place. For instance, for countries such as Libya the challenge is that its dependency on oil, which drives the process of diversification, is not linked (weak forward and backward linkage) to other sectors of economic development such as tourism, finance, etc. It is an indisputable fact that economic development for oil based economy (e.g., Libya), is and will remain the main long run objective and the only replacement for oil resources when these are exhausted. However, the unique role of energy, and especially oil, in structuring economic and social development and promoting economic growth will continue long in the future before new alternative source of income are created through a diversified economic system.

Given that the country is still so dependent upon oil resources we can therefore conclude that the achievement of economic growth in the country is unsustainable. If the government could address the structural problems of the

country more effectively, and implement a relatively well thought out diversification strategy (combined with sound management of its natural resources) it holds that the country would probably become less dependent, and thus the developmental path would become more sustainable. In other words, structural change may be an essential condition for the sustainability of economic growth and gets rid of dependence on the oil sector, the development policies associated with the allocation of available financial resources represent a key element in achieving this goal.

9.4 The Potential Contribution of Research

Although many earlier studies have raised the issues mentioned above, their specific focus was on issues like oil resources management, or oil as a major determinant of development. By contrast, in keeping my focus on the core aim of the research, this thesis illustrate a long term strategy for the diversification of non-oil economic policies to ensure stability and growth, increase overall economic performance, and create prosperity and jobs beyond the exhaustion of oil, with the view to gaining better understand of their interaction. Therefore, the research has realised three main contributions to knowledge:

a. Contribution to the Literature

As Libya is a commodity-based growth country, the research will add new knowledge contribution to the existing body of literature about the subject area of similarly structured economies. This study has gone some way from theoretical perspective, validating the nature of the relationship between economic diversification and sustainable economic growth. Our analysis acknowledged a clear relationship between the two economic terms. It showed how diversification can both reduce a nation's economic volatility and increase its real activity performance. These findings provide a well-founded reminder for the academic community that one key to creating a robust, sustainable economy is promoting a diversified economy one that is not overly dependent

on a single commodity. This analysis will also provide a reference as to nations/industries where ongoing diversification efforts ought to be placed. Empirical findings have significant implications for policymakers interested in ensuring that their country enjoys a robust and sustainable economy. This empirical evidence shows clearly those policymakers, particularly whose economies have formerly relied on a single export commodity must focus on economic diversification when creating development agendas, and must rigorously measure and monitor economic diversification in evaluating the success of their policies.

b. Contribution to the Libyan Government

Reducing the Libya's dependence on oil by diversifying of its national income has been the government's major policy objective. At this stage of Libyan economic transition, the outcomes of studies such as this will be of great contribution in the success of the transition process. Especially given that the government's declared intention is to attempt to sustain its national development by diversifying its economy and to introduce non-oil as the main alternative to oil revenues, which will not last forever. The researcher intended to make a contribution to the domestic economic development prospects of Libya, by considering possible involvements that could bring about economic diversification and structural reforms to support the country's development strategy.

c. Contribution to the Researchers

To the best knowledge of researcher, this survey was the first attempt to objectively assess the ability of a Libyan representative population to provide reliable perceptions in relation to actually being aware of the fact that continuous of dependency on oil is an unreliable option and how this may have affected their country's economic performance, and to offer possible policy

responses to overcome them. To differentiate this study from others research, in relations to the methodological approaches adapted, to the best of my knowledge, whilst a number of studies have been carried out in various oil economies. (For instance, on oil revenues and Libyan economic development, and optimal oil investment, the context of diversification), none of these studies have used a qualitative approach as a method to investigate people's perceptions concerning the contribution of oil sector diversification strategies in Libya. In my personal opinion, the use of qualitative and quantitative approaches has indeed evaluated the people's perceptions on the contribution of diversification as a phenomenon in the context of Libya.

9.5 Suggestion for Further Research

This is a new area of study conducted in Libya. The rationale for choosing Libya as a case in point is because Libya was one of the oil developing countries that has attempted to adopt economic diversification, but failed to attain sound economic performance. Its findings will go a long way in assisting the Libyan government to consider diversifying the production base of the economy to other sector that may be promoted besides oil. It can also be viewed as the first step towards much more expansion in the contribution of non-oil sectors to the economic growth of Libya in the future, so as to diversify the economic base of the country.

The findings of the research will be a part of the dialogue that is going on in Libya about diversifying the economy away from its total reliance on oil receipts to non-oil sectors. Moreover, the findings of this study will help policymakers to evaluate various economic policies, both in the private and the public sector, in order to improve the effectiveness of their non-oil economic activities. This is even more critical for other policies and regulations that directly affect the performance of the Libyan economy. This study has attempted to make a contribution towards filling in an important gap in Libyan academic studies, due

to this, there are significant issues affecting the Libyan economy, which have not yet received much theoretical attention.

However, due to data limitations, the findings of this study may have not entirely presented the picture that is found on the ground in Libya, and a more comprehensive study may need to be undertaken. For instance, the method used to measure diversification levels in this research could be considered by some as an easy and inadequate assessment, therefore it is suggested that future researches estimate further approaches to gauge diversification trends. In addition, for future research it would be advisable make the sample size of in-depth interview survey larger, hence, providing reliable and stronger feedback. Because of recent political change (the study was carried out before the political upheaval in the country) the current climate may mean a changed economic policy attitude towards the issue of diversification.

References

- Abidin, M. Z. (2001). 'Competitive Industrialization with Natural Resource Abundance: Malaysia', in R.M. Auty (Eds.), *Resource Abundance and Economic Development*, Oxford, Oxford University Press.
- Acemoglu, D., and Zilibotti, (1997). "Risk Diversification and Growth", *Journal of Economic Research*, 105(4):709-751.
- African Development Bank, (2009). Libya, Country Engagement Note. Available [online] at: <<http://www.afdb.org/Libya>>
- African Development Bank, (2010). Technical Assistance for Small and Medium Enterprise Development. Available [online] at: <<http://www.afdb.org/Libya>>.
- Ahrend, R. (2006). How to Sustain Growth in a Resource Based Economy? The Main concepts and their application to the Russian Case. OECD Economics Department Working Papers, No. 478.
- Aissaoui, A. (2009). "The Challenges of Diversifying Petroleum-Dependent Economies: Algeria in the Context of the Middle East and North Africa". *Middle East Economic Survey*, 2(22):13.
- Aissaoui, A. (2007). "Looking Beyond Petroleum: A Stronger Case for Economic Diversification in MENA Region". *Middle East Economic Survey*, (XLIX)(15).
- Al-Kawaz, A. (2008). "Economic Diversification: The Case of Kuwait with Reference to Oil Producing Countries". *Journal of Economic Corporation*, 29(3):23-48.
- Alrubaie, F.K. (2004). Manufacturing Sector and the Process of Structural Transformation in Libyan Economy. Faculty of Economics. Working Paper No. 8312, MPRA. Omar Almukhtar University Darna-Libya. Available in Arabic.
- Alnasseri, S.S. (2005). *Policies to Sustain high Standards of Living in Oil Exporting Arabian Gulf countries*, Unpublished PhD, Griffith University.
- Alexeev, M., and Conrad. R. (2009). "The Elusive Curse of Oil". *MIT Press Journal*, 91 (3):586-598.

- Ali, I.S. (2011). Oil Revenue and Economic Development: the case of Libyan Economy (1970-2007). PhD Thesis, University of Wollongong.
- Anderson, K. (1998). "Are Resource-abundant Economies Disadvantaged?" *The Australian Journal of Agricultural and Resource Economics*, 42(1):1-23.
- Andrei, V.B. (2008). Sustainable Growth in a Resource-Based Economy: the extraction-saving relationship, MPRA Paper No. 12350, Queen's University. Russia
- Arezik, R., Gylfason, T., and Sy, A. (2011). Beyond the Curse: Policies to Harness the Power of Natural Resources. Washington, DC: International Monetary Fund.
- Auty, R.M. (2001). "The Political Economy of Resource-Driven Growth", *European Economic Review*, 45(4):839-846.
- Asanuma, S. (2008). Natural Resource Abundance and Economic Development: A Curse or a Blessing? Lessons from Indonesia's Experience. Preliminary Draft for Discussion: Hitotsubashi University.
- Backus, D.K. and M.J. Crucini (2000). "Oil Prices and the Terms of Trade", *Journal of International Economics* 50(1):185-213.
- Balabanis, G. I. (2001). "The Relationship between Diversification and Performance in Export Intermediary Firms". *British Journal of Management*, 12(1), 67-84.
- Baldwin, R.E. (1956). "Patterns of Development in Newly Settled Regions" Manchester School of Social and Economic Studies, 24(2):161-179.
- Basher, S.A. (2010). Has the Non-oil Sector Decoupled from Oil Sector? A Case Study of Gulf Cooperation Council countries. Working Paper No. 21059. MPRA. [Online] available at: <<http://mpra.ub.uni-muenchen.de/21059/>>
- Bauer, B., and Deller, S. (1997). The Role of Diversification in Economic Growth and Stability. Working Paper No 245, Centre for Community Economic Development University of Wisconsin-Extension.
- Bazhanov, A.V. (2008). Sustainable Growth in a Resource Based Economy: the Extraction-Saving Relationship. [Online] available at: <<http://mpra.ub.uni-muenchen.de/12350/>>
- Beblawi, H., and Luciani, G. (1987). (Eds). The Rentier State. London: Croom Helm.

- Bergs, R. (2004) *Enhanced Trade Integration with Europe: New Prospects of Growth and Development for Libya?* [Online] available at: <<http://edoc.bibliothek.uni-halle.de>>
- Ben-Hammouda, H., Karingi, S.N., Njuguna, A.E., and Jallab, M.S. (2006). *Diversification: Towards a new Paradigm for Africa's development.* Economic Commission for Africa, MPRA.
- Blattman, C., Hwang, J., and Williamson, J.G. (2007). "Winners and Losers in the Commodity Lottery: The impact of Terms of Trade Growth and Volatility in the Periphery 1870–1939", *Journal of Development Economics*, 82(1):156– 179.
- Bleaney, M. and D. Greenaway (2001). "The Impact of Terms of Trade and Real Exchange Rate Volatility on Investment and Growth in Sub-Saharan Africa", *Journal of Development Economics*, 65(2):491-500.
- Bizan, H.A. (2009). *Tourism Marketing in Libya between Reality and Ambitions.* PhD Thesis, Faculty of Economics, University of West Hungary.
- Bruce, R.J. (2008). "The Changing Libyan Economy: Causes and Consequences" *Middle East Journal*, 62(1):75-91.
- Bryman, A & Bell, E. (2007). Business Research Methods, Second Edition. Oxford University Press.
- Burns, R.B. (2000). Introduction to Research Methods. Fourth Edition, London: SAGE.
- Burke, J., and Larry, B.C. (2005). Educational Research: Quantitative and Qualitative Approaches. Second Edition, London: Pearson.
- Carneiro, F.G. (2007). "Development Challenges of Resource Rich Countries: The Case of Oil Exports". The World Bank, *Proceedings of the VI International Colloquium*, 15-140.
- Cashin, P., and McDermott, C. J. (2002). "The Long-Run Behaviour of Commodity Prices: Small Trends and Big Variability", *IMF Staff Papers*, Vol. (49)2. Washington: International Monetary Fund.
- Cattaneo, O. (2009). Tourism as a Strategy to Diversify Export: Lesson from Mauritius" In: R. Newfarmer, W. Shaw & P. Walkenhorst (Eds.), *Breaking into New*

- Markets: Emerging Lessons for Export Diversification.* Washington D.C: The World Bank.
- Cavalcanti, V., Mohaddes de V, K., and Raissi M. (2012). *Commodity Price Volatility and the Sources of Growth*, 12(12). Washington, DC: International Monetary Fund (IMF).
- Central Bank of Libya, *Annual Reports*, 2005-2006, various issues, Tripoli, Libya: Central Bank.
- Central Bank of Libya, *Annual Report*, 2010, Tripoli, Libya: Central Bank.
- Chenery, H., and M. Syrquin. (1975). Patterns of Development, 1950–1970. Oxford, U.K.: Oxford University Press for the World Bank.
- Christensen, R. (1997). Log-Linear Models and Logistic Regression. New York, NY:Springer.
- Cinti, V. (2008). The Political Economy of Oil Depletion. Unpublished thesis, Faculty of Economics, Anno Accademico, University of Reggio Emilia.
- Cinti, V. (2011). "The GCC Countries' Growth Beyond Oil: The Special Case Of Saudi Arabia". *World Review of Business Research*, 1(2):136-152.
- Clemens, J., & Veldhuis, N. (2004). "Size of Government and Economic Growth", [online] available at: <<http://www.fcpp.org/publication.detail.php>>.
- Collier, P., & Goderis, B. (2007). Commodity Prices, Growth, and the Natural Resource Curse: Reconciling a Conundrum. Centre for the study of African Economies. Working Paper No. 15. University of Oxford.
- Collier, P., Van Der Ploeg, F., and Venables, A.J. (2010). "Managing Resource Revenues in Developing Economies", *IMF Staff Papers* 57(1):84-118.
- Coury, T., & Dave, C. (2009) *Oil, Labour Markets, and Economic Diversification in the GCC: An Empirical Assessment*. Dubai: The Dubai Initiative-Working paper.
- Coxhead, I. (2007). "A New Resource Curse? Impacts of China's Boom on Comparative Advantage and Resource Dependence in Southeast Asia", *World Development*, 35(7):1099–1119.
- Crosby, M. (2007). Economic Diversification, The Centre for Strategic and Policy Studies, Melbourne Business School.

- Cuddington, J. (1988). "Fiscal Policy in Commodity-Exporting LDCs." Policy research Working Paper No. 33. Washington, DC: The World Bank
- Danis, O.M. (2006). *The Development of the Tourism Industry in Libya*. Unpublished PhD Thesis. Huddersfield, UK: The University of Huddersfield,
- Devlin, J., and M. Lewin (2004). "Managing Oil Booms and Busts in Developing Countries", In: Pinto, B. (Eds.), *Managing Volatility and Crises: A Practitioner's Guide*. Washington, DC: World Bank.
- Department of Statistics, Malaysia, (2011). *Economic Census 2011: Profile of Small and Medium Enterprises*.
- Diarra, C.S., Gurria, A., and Mayaki, I. (2010). Economic diversification in Africa: A review of selected countries. Paris: OECD.
- Dipo, N., Marotta, D., and De Melo, J. (2012). Natural Resources Abundance, Growth, and Diversification in the Middle East and North Africa. The Effects of Natural Resources and the Role of Policies. Washington DC: The World Bank.
- Easterly, W. (2003). National Policies and Economic Growth: A Reappraisal. Center for Global Development. New York: New York University.
- Edwik, A. A. (2007). *Oil Dependency, Economic Diversification and development a case study of Libya*. Unpublished PhD Salford, Manchester.
- Elbadawi, I.A. (2009). *Oil, Economic Diversification and Development in the Arab World*. USA: Dubai Economic Policy and Research Institute and Center for Global Development,
- Elbadawi, I.A., and Gelb, A.H. (2010). *Oil, Economic Diversification and Development in the Arab World*. The Economic Research Forum, PRR No. 35.
- Elfeituri, A.E. (1987)."Oil price Changes and Economic Growth in oil Exporting Countries". *OPEC Review*, 11(3):237-250.
- Elhiraika, A.B, and Hamed, A.H. (2002). Explaining Growth in an Oil-Dependent Economy: The case of the United Arab Emirates. Working Paper. Abu Dhabi: University of Abu Dhabi.
- Eltony, M.N. (2002). "Can an Oil-Based Economy be Diversified: A Case Study of Kuwait" *Journal of Energy and Development*, 27(2):197-211.

- El-Hag, S., and El-Shazly, M.R. (2012). "Oil Dependency, Export Diversification and Economic Growth in the Arab Gulf States". *European Journal of Social Sciences*, 29(3): 397-404.
- Eltony M.N. (2007). "The Economic Development Experience of Kuwait: Some Useful Lessons". *Journal of Economic & Administrative Sciences*, 23(1): 77-102.
- EIA. (2004). *Libya Country Analysis Brief*. Available online at: <<http://www.eia.doe.gov/emeu/cabs/libya.html>>.
- Eken, S., Helbling, T., and Mazarei, A. (1997). "Fiscal Policy and Growth in Middle East and North Africa Region", IMF Working Paper WP/97/101.
- Farooki, M., and Kaplinsky, R. (2011). Promoting Industrial Diversification in Resource Intensive Economies: The Experiences of Sub-Saharan Africa and Central Asia Regions. UNIDO.
- Fasano, U., and Iqbal, Z. (2003). *GCC Countries: from Oil Dependence to Diversification*, [online] Available at: <<http://www.imf.org/external/pubs/ft/med/2003/eng/fasano/>>.
- Fasano, U., and Wang, Q. (2001) "Fiscal Expenditure Policy and Non-Oil Economic Growth: Evidence from GCC Countries" IMF, Working Paper, WP/01/195.
- Gelb, A., and Grasmann, S. (2009). Oil Rents: How to use Them Well? Working Paper for GDN Conference, Kuwait.
- Gelb, A. (2010) Economic Diversification in Resource Rich Countries. World Bank Center for Global Development.
- Geloso G.M., Lesher M., and Pinali E. (2007). Services trade liberalization and tourism development. OECD Trade Policy Working Paper No. 57. Paris.
- Goeltom M.S (2007). "Economic and Fiscal Reforms: The Experience of Indonesia, 1980–1996", *Essays in Macroeconomic Policy: The Indonesian Experience*, PT Gramedia Pustaka, Jakarta, pp. 489–506.
- Greene, S. (2008). Business Research Methods. [online] Available at: <<http://www.BookBooN.com>>
- Gylfason, T. (2001). "Natural Resources, Education and Economic Development", *European Economic Review*, No. 45, pp.847–859.

- Gylfason, T. (2006). "Natural Resources and Economic Growth: From Dependence to Diversification". *Economic Liberalization and Integration Policy*, pp. 201-231.
- Hadass, Y., and Williamson, J. (2003). "Terms of Trade Shocks and Economic Performance 1870-1940: Prebisch and Singer Revisited", *Economic Development and Cultural Change*, 51(3):629–56.
- Hausmann, R., Hwang J., and Rodrik, D. (2007). "What You Export Matters". *Journal of Economic Growth*, 12(1):1–25.
- Hausmann, R., and Rigobon, R. (2003). An Alternative Interpretation of the 'Resource Curse': Theory and Policy Implications. NBER Working Paper No. 9424, IMF.
- Hamilton, K., and Hartwick J.M. (2005). "Investing Exhaustible Resource Rents and the Path of Consumption," *Canadian Journal of Economics*, 38(2):615–21.
- Hartwick, J. (1977). "Intergenerational Equity and Investing the Rents from Exhaustible Resources", *The American Economic Review*, 67(5): 972-974.
- Harvey, D., Kellard, N., Madsen, J., and Wohar, M. (2010). "The Prebisch-Singer Hypothesis: Four Centuries of Evidence", *Review of Economics and Statistics*, 92(2):367–77.
- Heal, J. (2006). Are Oil Producers Rich? Initiative for Policy Dialogue Working Paper Series. USA: Columbia University
- Hesse, H. (2008). Export Diversification and Growth: Commission on Growth and Development (Working Paper No. 219). The World Bank.
- Herzer, D., and Lehnmann, F.N. (2006). Export Diversification Externalities and Growth: Evidence for Chile. Working Paper No.12, Research Committee Development Economics.
- Hicks, J. (1939). Value and Capital: An Inquiry into some Fundamental Principles of Economic Theory. Oxford, UK: Oxford University Press.
- Hirschman, A.O. (1977). "A Generalized Linkage Approach to Development, with Special Reference to Staples", In: M. Nash (Eds.) *Essays on Economic Development and Cultural Change in Honor of Bert F. Hoselitz*, Chicago,IL: University of Chicago Press, pp. 67-98.

- Honeck, D. (2012). LDC Export Diversification, Employment Generation and the "Green Economy": What Role of tourism Linkage? Staff Working Paper ERSD-24. WTO.
- Hsieh, H.F., & Shannon, S.E (2005). Three Approaches to Qualitative Content Analysis. London, UK: Sage.
- Hvidt, M. (2013). Economic Diversification in GCC Countries: Past Record and Future Trends. Research Paper, Kuwait Programme on Development, Governance and Globalisation in the Gulf States. London: LSE
- Imbs, J., and Wacziarg R. (2003). "Stages of Diversification," *American Economic Review*, 93(1):63-86.
- International Monetary Fund, (2006). The Libyan State: Country Report 16 No. 06/136 Publication Services, Washington.
- International Monetary Fund, (2009). The Libyan State: Country report No. 09/294 Publication Services, Washington.
- International Monetary Fund, (2010). The United Arab Emirates: Country Report No. 12/116 Publication Services, Washington.
- International Monetary Fund (2012). Macroeconomic Policy Frameworks for Resource-Rich Developing Countries. Washington D.C.
- International Monetary Fund, (2013). The Libyan State: Article IV Consultation Concluding Statement.
- Innis, H.A. (1954). *The Cod Fisheries: The History of an International Economy*. New Haven: Yale University Press, 1940. Revised Edition, Toronto: University of Toronto Press.
- Istaitieh, A., Hugo, S. Husain, and N. Husain (2007). UAE Macroeconomic Report. Data Management and Business Research Department.
- Jomo, K.S. and Rock M. (1998). Economic Diversification and Primary Commodity Processing in the Second-Tier East Asian Newly Industrializing Countries. Discussion Paper No.136.
- Jones, C. (2011). "Intermediate Goods and Weak Links in Theory of Economic Development". *American Economic Journal: Macroeconomics* 3(2):1-28.

- Karl, T.L. (2007). "Oil-led Development: Social, Political, and Economic consequences". *Encyclopaedia of Energy*, pp.661–672.
- Koren, M. & Tenreyro, S. (2010). Volatility, Diversification and Development in the GCC. Research Paper, Kuwait Programme on Development.
- Lange, M.G. (2004) "Wealth, Natural Capital, and Sustainable Development: Contrasting Examples from Botswana and Namibia". *Environmental & Resource Economics*, 29(3):257-283.
- Lederman, D., and Maloney, W.F. (2007). "Trade Structure and Growth", In: Daniel Lederman and William F. Maloney (Eds.) *Natural Resources: Neither Curse nor Destiny*, pp.15-39. Washington DC: World Bank and Stanford University Press.
- Lejarraga, I. and Walkenhorst, P. (2013). Economic Policy, Tourism Trade and Productive Diversification, CEPII, WP No 2013-07
- Levine, R., Loayza N., and Beck, T. (2000). "Financial Intermediation and Economic Growth: Causes and Causality", *Journal of Monetary Economics*, 46, pp.31-77.
- Levine, R. (2005). "Finance and Growth: Theory, Evidence, and Mechanisms", in P. Aghion and S. Durlauf (Eds.), *The Handbook of Economic Growth*, Amsterdam: North-Holland.
- Mansfield Y.C. (1980). "A Norm of Stabilization Budget Policy in Less Developed Export Economies", *Journal of Development Studies*, 16(4):401-411.
- Maddala, G.S. (2001). *Introduction to Econometrics*. New York, NY: John Wiley & Sons,
- Markowitz, H.M. (1959). *Portfolio Selection: Efficient Diversification of Investment*. New York, NY: John Wiley and Sons.
- Meier, G., and Rauch J., (2005). *Leading Issues in Economic Development*. Eighth Edition, Oxford University Press.
- McMillan, M.S., and Rodrik, D. (2011). Globalization, Structural Change and Productivity Growth. Working Paper No. 17143, NBER.
- Moore, W., & Walkes, C. (2007). "Does Economic Diversification Impact on the Relationship between Policies and Volatility?" *International Review of Applied Economics*, (24):179–202.

- Morris, M., Kaplinsky, R. and Kaplan, D. (2011) "One Thing Leads to Another" Commodities, Linkages and Industrial Development: A Conceptual Overview. MMCP Discussion Paper No. 12.
- Nambiar, S. (2010) "Trade, Economic Policy and Diversification: The Malaysian Experiences", *CSPS Strategy and Policy Journal*,(1) pp. 69-80.
- National Authority of information and Documentation (2008). Statistics Book, Yearly Bulletin of economic and Social Data, No. 14. Tripoli, Libya.
- National Bureau of Statistics, (2010). Analytical Report on Economic and Social Dimensions in the United Arab Emirates 2009. [Online] Available from: <<http://www.uaestatistics.gov.ae>>
- Noh, A. (2013). Natural Resources and Economic Diversification: A Case of Malaysia. Working Paper. No: 2013/02.
- OECD. (2011). Economic Diversification in Africa: A review of Selected countries. New York, NY: United Nations.
- Otman, W., and Karlberg, E. (2007). *The Libyan Economy: Economic Diversification and International Repositioning*. Berlin, Germany: Springer Verlag.
- Page, J. (2008). Rowing Against the Current. The Diversification Challenge in Africa's Resource Rich Countries: Brookings Global Economy & Development. Working Paper 29.
- Papageorgiou, C. and Spatafora, N. (2012). Economic Diversification in LICs: Stylized Facts and Macroeconomic Implications. IMF Staff Discussion Note.
- Polterovich, V., Popov, V., and Tonis, A. (2010). Resource Abundance: A Curse or Blessing? DESA Working Paper No. 93 Economic and Social Affairs.
- Porter, M.E, and Yergin, D. (2006). National Economic Strategy (*An Assessment of the Competitiveness of the Libyan Arab state*), country report, Monitor Group, UK.
- Prebisch, R. (1950). "The Economic Development of Latin America and its Principal Problems". *Economic Bulletin for Latin America*, 7, pp.1-12.
- Rodrik, D. (2005). "Policies for Economic Diversification." *CEPAL Review* (87) pp.7–23.

- Rosser, A. (2004). Why did Indonesia overcome the Resource Curse? Working Paper No. 222. Institute of Development Studies. Brighton, Sussex, England.
- Rosser, A. (2006). The Political Economy of the Resource Curse: A Literature Survey. Working Paper No. 268, Institute of Development Studies. The University of Sussex.
- Rostow, W.W. (1956). "The Take-off into Self-Sustained Growth". *The Economic Journal*, 66(261):25-48.
- Sachs, J.D., & A. Warner, A.M. (2001). "The Curse of Natural Resources." *European Economic Review*, 45(4–6):827–838.
- Saunders, M., Thornhill, A., and Lewis, P. (2009). *Research Methods for Business Students*. Financial Times. USA, Prentice Hall.
- Savard, K., Reeve, J. Gilmour, A.B., Agha, R.A., and Ahmed, T. (2010). The GCC: Increasingly Diversified Economies. [Online] available at: <<http://www.sampa.com>>.
- Sefton, J.A, and Weale, M.R (1996). "The Net National Product and Exhaustible Resources: The Effects of Foreign Trade" *Journal of Public Economics*, 60 (2):21-47
- Singer, H. (1950). "Comments to the Terms of Trade and Economic Development". *Review of Economics and Statistics*, 40, pp.84-89.
- Shochat, S. (2008). *The Gulf cooperation economies: Diversification and Reform*. LSE Kuwait Research Programme on Development, Governance and Globalization, February.
- Shamyia, A. (2007). Economic Policies for the Stage of Structural Reform. Working Paper, First National Conference for Public Policies in Libya, University of Garyounis.
- Shafaeddin, M. (2001). Diversification, Employment and Development: Towards A Long-Term Strategy for an Oil-Exporting Country; the Case of Iran. *Working Papers*.
- Shediac, R., Abouchakra, R., Moujaes, C.N., and Najjar, M.R. (2008). Economic Diversification: The Road to Sustainable Development. Booz, Allen, Hamilton.

- Solow, R. (1974). "Intergenerational Equity and Exhaustible Resources". *Review of Economic Studies*, (41) pp.29-45.
- Solomon, M.H. (2000). Growth and Diversification in Minerals Economies: Planning and Incentives for Diversification. UNCTAD.
- Stevens, P. (2003). "Resource Impact: Curse or Blessing? A Literature Survey". *Journal of Energy Literature*, 9(1):1-42.
- Stevens, P. (2005). "Resource Curse and how to avoid it", *The Journal of Energy and Development*, (31)(1).
- Stanley, F. (1993). "The Role of Macroeconomic Factors in Growth", *Journal of Monetary Economics*, 32 (3):485-512
- Stevens, P., and Mitchell, J. V. (2008). Resource Depletion, Dependence and Development: Can Theory Help? London: Chatham House.
- Strobl, E. (2002). Export Diversification and Price Uncertainty in Developing Countries: A Portfolio Theory Approach. Mimeo, University of Paris X-Nanterre
- Tornell, A., Lane, P. (1999). "The Voracity Effect". *The American Economic Review*, 89 (1):22 - 46.
- UNCTAD, (2013). Sustainable tourism: Contribution to Economic Growth and sustainable development. [Online] Available at: <http://unctad.org/meetings/en/SessionalDocuments/ciem5d2_en.pdf>
- UNECA, (2007). Economic Report on Africa 2007, Accelerating Africa's Development through Diversification. Addis Ababa, Ethiopia: Economic Commission for Africa.
- UNECA, (2008). SMEs: Actors for Sustainable Development in North Africa. [Online] Available at: <<http://www.uneca.org/sites/default/files/publications/smes-in-na.pdf>>.
- UNIDO, (2009). Breaking In and Moving Up: New Industrial Challenge for the Bottom Billion and the Middle-Income Countries. Industrial Development Report.
- Unwin, A. (2010) *Exploratory Data Analysis*. Oxford, UK: Elsevier Ltd.,pp. 156-161.
- Vandewalle, D. (1998). Libya since Independence Oil and State-Building. Ithaca, NY: Cornell University Press.

- Verghis, M.A., and Sander, F.G. (2013). Harnessing Natural Resources: Malaysia Economic Monitor: The World Bank.
- Watkins, M.H. (1963). "A Staple Theory of Economic Growth", *The Canadian Journal of Economics and Political Science*, 29(2):141-158.
- Wiig, A. and Klostad, I. (2011). Policy Conference: Competitiveness and diversification: Strategies challenges in a petroleum-rich countries Conference Paper: Accra, Ghana.
- Western Centre for Economic Research, (2010). A Primer on Economic Diversification in Alberta. [online] available at: <<http://www.ABCtech.ca>>
- World Bank (2006). Socialist People's Libyan Arab Jamahiriya Country Economic Report: Social and Economic Development Group Middle East and North Africa Region. Washington DC: World Bank.
- World Bank. (2005). Where is the Wealth of Nations? Measuring Capital for the 21st Century. Washington DC: World Bank.
- World Bank (2009). Breaking into New Markets: Emerging Lessons for Export Diversification. Washington, DC: World Bank.
- World Bank. (2011). The Changing Wealth of Nations: Measuring Sustainable Development in the New Millennium. Washington, DC: World Bank
- World Trade Organization, (2012). Trade Policy Review Body: Report by United Arab Emirates. WT/TPR/G/262
- Yahya, H., M. (1981). "Oil and Economic Development in the Socialist People's Libyan Arab Jamahiriya: A Great Challenge." *OPEC Energy Review*, 5(1):33-53.
- Yahiya, A.F. (2008). *The Effects of the Fluctuation in Oil Prices on the Performance of Libyan Economy*. PhD Thesis, School of Economics, University of Wollongong.
- Yousef, A.A. (2005). Imported Intermediate Inputs and Economic Growth in Libya, University of Tripoli- Libya
- Yousef, T.M. (2004). Development, Growth and Policy reform in the Middle East and North Africa, Discussion paper, School of Foreign Service. Washington: Georgetown University.

- Yusoff, M.B., Abu Hasan, F., and Abdul Jalil, S. (2000). Globalisation, Economic Policy, and Equity: The Case of Malaysia. Paris: OECD.
- Zarmouh, O.O. (1998). *Optimal Investment in Oil based Economy: Theoretical and Empirical Study of a Ramsey-Type Model for Libya*. PhD Thesis, Bradford, University of Bradford.
- Zayed, T.K, Abdel-Hakim, M.N., Ramadan, A., Abu-Khoshaim, A.I., and Mohamed, F. (2009). Capabilities and components of sectoral diversification in Libyan Economy. Institution of planning, Ministry of Planning and finance. Libya. Available in Arabic.
- Zhang, Y. , & Wildemuth, B. M. (2009). Qualitative analysis of content. In B. Wildemuth (Ed.), Applications of Social Research Methods to Questions in Information and Library Science (pp.308-319). Westport, CT: Libraries Unlimited.

Research Appendix

Sample of individuals and institutions representatives' on economic diversification prospects in Libya: As a major part of my PhD research in the Business School, University of Huddersfield, I am conducting a research study on the prospect of diversifying the productive base of the Libyan economy as proper means to sustain economic growth, under the supervision team of Dr. Kalim Siddiqui and Mr. John Day.

The aim of this survey is to further assess, and better understand the possible contribution of the non-oil sector (the other side of a single sector economy, which represents a narrow productive capacity). In particular, the survey seeks to explore other sources of income, complemented by oil proceeds, which can sustain economic growth, and boost oil wealth in the economy. Its findings will go a long way in assisting the Libyan government to consider the non-oil products and services that may be promoted besides oil, so as to diversify the economic base of the country.

Your kind participation in this survey will help us to understand the mechanism of the development of non-oil economies, and to determine possible means for achieving economic growth without the need for oil, which will deplete completely in this country not very far in the future. With the current rates of production, Libya can only expect to extract the resource for a few decades. All the information you provide will be treated with the strictest confidentiality, and data from this research will be reported only as combined, rather than individual, statistics. There are no probable risks associated with this research. It is very important for us to learn your opinions.

I would be grateful for your kind involvement in this survey.

Mohamed

Appendix One: Questionnaire Survey

A questionnaire consisting of five different sections was developed, which covers by way of example the following:

PART ONE: Demographic Details (General Characteristics):

1- Gender : Male Female

2- Age of respondents: under 30 30-35
 36-45 up to 45

3- What is your level of education? (Post graduate students to be involved):

Post graduate Diploma Master Degree PhD

Job of experience: how long have you been teaching?

Less than 5 years 5-10 years more than 11years

How would you describe your position within the institution/company?

Senior lecturer Policy adviser
 Policy makers an official Manager

4- How can you state your best position as an employee?

University researcher employee Private sector employee
 Government employee NOC-Libya

PART TWO: Dominance of oil, and the Degree of Susceptible to Certain Economic Factor

1- How would you assess the consequent risk caused by oil prices fluctuation on the Libyan economic performance and growth rate?

- Severe affect Minor affect
 Medium affect Uncertain

2- If you believe your answer is an accurate statement, how these problems can be overcome, or at least very substantially mitigated?

Is economic diversification a key part of lessening this risk?

.....
.....

3- How would you evaluate, the serious problems facing Libya's economy if oil revenues were to fall substantially, (Libya can only extract the resource for few decades)?

- Extremely effect Moderately
 Slightly No effect

4- Do you think that revenues generated by oil can be exploited via diversification processes to promote the economy as opposed to simply sustainable economic growth?

- Totally Agree Agree Partly agree Disagree

5- Reducing Libya's dependence on oil was the government's main economic policy objectives. Do you believe its inability to achieve this goal stems from,

- Misguided policy makers An underdeveloped private sector
 Weak institutional capacity Skills shortages

PART THREE: The Actual Performance of Non-oil Sectors to Develop the Domestic Economy

1- How do you rate the economic performance of non-oil sectors for the past two decades (e.g., Manufacturing, services, and Agriculture)?

Developed Remained stagnant Diminished No change

2- Do you believe that the Libyan economy's health hinges on investing in Non-oil sectors the most optimal of long term policy?

Totally Agree Agree Partially Agree Disagree

3- In your perspective, which is the most likely of these non-oil sectors offers unique opportunities to generate great potential of high rates of growth and job creation?

- Tourism
- ICT
- SME
- Transit trade
- Banking secto
- Others

4- How do you assess recent trends of performance in non-oil sector with aim to sustain, enhancing Libyan economic growth, and development?

Fragile Inadequate Satisfactory Neutral

5- How far do you believe, the government should give support, and efforts towards boosting the level of contribution of non-oil to the GDP?

Great deal of support Modest support Very small support

6- What needs to be done for the Libyan economy to accelerate the rate at which non-oil can grow? Please pick your answer from the following options;

- Establish a private sector Facilitate a financial market sector
 Improve intra-regional trade Improve domestic real capital formation

PART FOUR: Perspectives on Libya's Economic Diversification Prospects

1- How do you assess the extent to which the Libyan economy can diversify away from its total reliance on the oil industry?

- Very likely Likely Unlikely Not sure

2- What are the prospects for oil based economy like Libya to diversify into other economic activities?

- Slight Moderate Considerable No change

3- Do you think economic diversification can be a significant component of a sustainable economy?

- (Yes) (No)

4- To ensure successful implementation, what economic and policy approaches seem to facilitate diversification process. (Please classify your answer according to their priority from the following options);

- Attracting foreign investors Developing an adequate infrastructure
 Building up human capital Establishing the implementing entities
 Developing a business-friendly environment

PART FIVE: Perspectives on Enhancing Sustainable Growth and Job Creation

1- Why is Libya's human resource capacity still too small to absorb the capital economically in building up a modern and diversified economy?

.....
.....

2- Do you believe that the oil sector could sufficiently generate employment opportunities with the current rates of unemployment to absorb the new entrants to the labour market?

Yes No

3- Do you support the idea that, development of potentials non-oil sectors and implementation of a far reaching entrepreneurship program (SMEs) is a strategic option for enhancing opportunities to increase employment?

Totally Agree Agree
 Partially Agree Disagree

4- In your opinion, what is the accurate annual rate of growth needed in non-oil sector for the Libyan economy to be able keep down the level of unemployment?

4-5% growth rate 5-6% growth rate
 6-7% growth rate Uncertain

End of questions

Appendix Two: In-depth Interview of Government Officials

The table below contains the interviewee's organisation names, and the abbreviations used:

Abbreviations	Name of organization of the personnel interviewed
NPC	National Planning Council
NEDB	National Economic Development Board
IPD	Institute of Planning and Development
RCES	Research Centre for Economic Sciences
CBL	Central Bank of Libya

Interview Questions

The questionnaire survey was complemented by fourteen interview questions these in-depth interviews were conducted with Libya's government official, and took the form as follows:

Q1- In the context of economic development, the objective of the Libyan government economic growth policy was to come out with other alternatives to oil resources, with the specific vision of increasing the country's finances and attaining revenue diversification.

In your opinion, do you accept that Libya has achieved the intended objectives?

[Yes]

[No]

Statement.....

Q2- Taking into account the above question, could you specify if government managed to generate income from the oil sector, how much would be allocated to domestic diversification to support the non-economic oil sectors?

Statement.....

Q3- The Libyan economic outlook recently shows that it is weak, and that growth, in real terms, has not improved, it is still unstable and fluctuating. In your own opinion, this is likely due to which factors:

- (a) Economic mismanagement of oil revenues
- (b) Economic policies pursued
- (d) Other (please specify)

Statement

Q4- In the context of experience relating to the globalisation agenda, economic diversification has been recognised as an alternative economic mechanism which has the potential to optimise solutions in order to avoid dependence on one sector, which then dominates the economic environment of a particular country.

In this regard, and taking into account the country's economic realities, how can Libya be in a position to develop the economic infrastructure to implement economic diversification policies?

Statement.....

Q5- It is acknowledged that the revenues generated from the oil sector have a significant role to play towards economic growth, as well as stimulating the diversification process and taking into account other alternative sources of income generation with the potential to replace oil returns. Furthermore, spending on other sectors, such as education, healthcare, and infrastructure development has become an important challenge for the government.

From your perspective to what extent has Libya achieved these goals?

[Yes]

[No]

Statement.....

Q6- To strengthen sustainability for economic growth, do you believe that at the country level there is an urgent need to set up a special funds to act as a buffer for the development of economic diversification programmes and policies?

[Yes]

[No]

Statement.....

Q7- To simplify the process of economic reforms and to lay the foundations for the restructuring process of Libya's economic infrastructure Libya needs to create institute a sound private and financial market for economic recovery.

Do you agree with this statement and what is your opinion?

Comment.....

Q8- In the context of the Libyan government's economic policy intervention at the national level, it is recognised that the public sector has a prominent role in the dominance of the economic strategy, and led oil export to other overseas markets. The country also has rates of Growth Domestic Product (GDP) which are known to have been very low during the past 30 years. In this case, other alternatives become very prominent for shifting the country's economic policy towards a private-sector-led economy.

In your view, do you believe that incorporating private sector economic strategies will contribute to the economic agenda of Libya?

[Yes]

[No]

Statement

Q9- Considering factors including productivity and efficiency there are still considerations from the country's economic perspective that still pose big challenges and are always considered as very weak from an economic point of view regarding long-term objectives.

[Yes]

[No]

If you think that it statement is true, would you tell us what are the right economic policies to be adopted by the Libyan government to address this economic malaise?

Statement

Q10- There has been an increase in population growth as observed in all major oil producing countries including Libya.

In your opinion, do you believe that the effects of population increase will not be sufficient to enhance job creation, and will have a very slow economic recovery?

[Yes]

[No]

Statement

Q11- Like any other economy, including Libya, the volatility of oil prices and their fluctuations, can delay the attraction of Foreigner Direct Investment (FDI) and other types of investments, effecting of price fluctuations as well as decreasing oil revenues.

In your opinion, are you of the view that due to this economic sensitivity, Libya will be able to attain steady economic growth in the long term?

[Yes]

[No]

Statement

Q12- The profits made from oil exports, in their present state, continue to play a main role in strengthening the country's economic growth.

What is the likely alternative which will support the country to become independent from oil and become economically independent to realise sound economic performance?

Statement

Q13- Could you briefly elaborate upon why the Libyan economic structure is still unrepresentative? In your opinion, do believe that this could be attributed to?

The share of manufacturing industry to the GDP is still recognised as not being sustainable.

Oil is considered as the key economic contributor to the economy

The regional trade between Libya and the rest of the countries in the same region or outside of the region still remains modest when we compare it with other major oil producing countries.

Statement

Q14- From the current perspective, what is the best option to be realised by policy makers and other major players which will benefit existing and future generations?

Statement

End of questions