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the Case of Algeria. For the Period 1990-2015**

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Dedication

I would like to dedicate my thesis

*To my **mother**...who encouraged me and supported me from all her heart and
worried for me all the time*

To my father...who also encouraged and supported me from all his heart

*To my two brothers and all my family...who really prayed for me and stood by
my side all the time*

*To all my friends...especially my best friends who were really a big help to me
and every friend who helped me even by a smile.*

Aouati Aladdin



Dedication

*Every challenging work needs self efforts as well as
Guidance of elders especially those who were very closed
to our heart.*

My humble effort I dedicate to my sweet and loving

Father & mother

*Whose affection, love, encouragement and prays of day
and night make me able to get such success and honor,*

Along with all hard working and respected

Teachers

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Abbreviations

GDPPC	Gross Domestic Product per capita
EFI	Economic Freedom Index
FDI	Foreign Direct Investment
PG	Population Growth
OP	Oil Prices
MLR	Multiple Linear Regressions
VIF	Variance Inflation Factor

Abstract

This study investigates the impact of corruption on economic growth in Algeria over the period 1990-2015 by using economic freedom index and World Bank indicators. The (OLS) regression test has been applied in order to examine the effect of the five macroeconomic variables on economic growth, such as economic freedom index (EFI), oil prices (OP), Population Growth (PG), foreign direct investment (FDI). By using this approach, all variables are statistically significant and have a positive effect on the dependent variable, except (EFI), it adversely affects it. These results support the view that corruption sands the wheels of economic growth. Thus, the Algerian government should root out this scourge by finding the relevant solutions that must be supported with effective weapons such as transparency and tougher accountability standards.

Keywords: Corruption, Economic Growth, Economic Freedom Index, and World Bank.

الملخص

هدفت هذه الدراسة إلى فحص تأثير الفساد على النمو الاقتصادي في الجزائر خلال الفترة 1990-2015 باستخدام مؤشر الحرية الاقتصادية ومؤشرات البنك العالمي. تم تطبيق اختبار الانحدار المجمع من أجل دراسة تأثير متغيرات الاقتصاد الكلي الخمسة على النمو الاقتصادي مثل مؤشر الحرية الاقتصادية وأسعار النفط والإنفاق الحكومي والاستثمار والنمو السكاني. وباستخدام هذا النهج، فإن جميع المتغيرات ذات دلالة إحصائية وكانت لها تأثير إيجابي على المتغير التابع، ما عدا الفساد فإنه يؤثر سلباً على النمو الاقتصادي. هذه النتائج تدعم الرأي القائل بأن الفساد يعيق عجلات النمو الاقتصادي. وبالتالي، يجب على الحكومة الجزائرية أن تجتنب هذه الآفة من خلال إيجاد الحلول ذات الصلة التي يجب دعمها بأسلحة فعالة مثل الشفافية ومعايير المساءلة الأكثر صرامة.

الكلمات المفتاحية: الفساد، النمو الاقتصادي، مؤشرات الحرية الاقتصادية، و البنك العالمي.

Chapter One

Introduction

I.1. Preface

I.2. Objectives of the Study

I.3. Importance of the Study

I.4. Questions of the Study

I.5. Difficulties of the Study

I.6. Structure of the Study

I.1. Preface

Corruption diffuses since the old civilizations, from Mesopotamian the oldest one to our present, even in the future. Corruption is everywhere, this phenomenon exists in every country, developing, and developed world, and the under developing countries, it threatens the growth of the country, its economy, and it's very dangerous on political stability. Corruption can put a very negative impact on psychology of the community which makes them unsure credibility of officials therefore that will damage the whole country in many sides, politically, economically, socially, culturally...

The causes of corruption have varied widely, and their types and its classifications have varied considerably with each researcher and each empirical study in different countries, this makes us understand that corruption is different from each country such as the corruption in Italy is various from corruption in Algeria. It can take many forms, each form has different effect, and the most popular form that we can see is bribery that spread in every country and no one survives from it.

This phenomenon is more complex than we imagine, due the old existence and there are many procedures and laws to fight against this phenomenon in many centuries, and it has not been completely eliminated, it has received so much attention and so much concern of international organizations, politicians, and economists, who focused on investigating its causes and

consequences, as well as the implementation of the proposed solutions. There is a broad consensus that corruption is considered a deadly disease which destroys the economic tissue cells, further, it is more prevalent in natural resource-rich countries.

Nowadays, a large part of academic literature and international organizations largely and increasingly recognize that corruption acts as a major impediment to growth. The World Bank (2000), for example, identified corruption as “the single greatest obstacle to economic and social development in the third world countries”, as it distorts the rule of law and weakens the institutional foundations on which economic growth depends. In fact developing economies, since it obstructs any advance in economic growth. It has been demonstrated, for example, that an improvement in a country of 6 points on the Transparency International Corruption Perception Index, may increase GDP by more than 20% (Lambsdorff, 2004).

Corruption in general is negative and dangerous, but in some anomaly cases corruption can be positive on economic growth in a given country, some empirical studies show that corruption helpful, and fighting this phenomenon can stop and damage the economy of the country, especially in a country where corruption has long been inherent.

Algeria and like other countries, corruption prevalent in it and most sectors are corrupt especially public sectors, due the bureaucratic system and other

reasons, as many other third world countries, Algeria has high level corruption for a long time, that make us put a question mark: why Algeria's economy is not destroyed and the political system is still stable?, to answer to this question, we need to understand the nature of the system, and the circumstances it experienced until she preserve its economic stability despite corruption, however, it's not mean that Algeria has good economy and powerful political system, she has many weak points in many sectors and sides, which mean if corruption not existed Algeria could be one of the greats countries in the world, so we have to understand how corruption effect on economic growth, is it negative or positive or both, also we have to understand the characteristics of this phenomenon to understand how it's effect on Algeria in general and economic growth in special.

In this study, we will focus on Algeria's economic as a sample, and drive the necessary variables that used to measure the impact; in addition, we will try to find out the relationship between corruption, and economic growth in Algeria.

I.2. Objectives of the Study

The essential objective of this study is to find out the effect of corruption on economic growth, taking Algeria as sample of the study, during the period of 1990 until 2015 and determine whether corruption is positive for the economy of Algeria or negative.

Sub-objectives of the Study

- ✚ To examine the effect of four variables on the economic growth in Algeria.
- ✚ To give a clear and accurate picture of corruption in Algeria.
- ✚ To stand on the most important points that concern the reader on the subject of corruption.
- ✚ To highlight the various situations of corruption in Algeria, and try to diagnose and analyze the causes and effects
- ✚ We also aspire to add a new brick to the overall researches related to the subject.
- ✚ To be a starting point to procedure further researches, and expand the points that have not been touched, or which were side-not focused.

I.3. Importance of the Study

The importance of this study lies in:

- ✚ The lack of empirical studies that have experienced this subject, because most previous studies didn't make a standard study of corruption in Algeria, and they just make analytical study about this phenomenon.
- ✚ The study derives its importance from the seriousness of this phenomenon, which has become biggest obstacle to economic growth.

I.4. Questions of the Study

The main question of this study is:

What is the effect of corruption on economic growth?

From this question there are sub-questions that can be asked:

1. What is the phenomenon of corruption?
2. How can corruption affect on economic growth?
3. What are the basic variables that explain corruption and economic growth?
4. Can corruption be positive on the economic growth?

I.5. Difficulties of the Study

While the study has a lot of good points and gives new visions about corruption, however, we encountered many difficulties, the most important of them are:

1. The main obstacle that faced us is the sources that we need to build this study, we really had a big problem to find references especially the foreign references, because of the copyrights so we couldn't download them from internet even are not available in libraries, so we did as possible as we can to find the necessary references.
2. The second obstacle is collecting data, this study finds a big problem to collect and find the right variables which reflect the nature of the Algerian economy.

I.6. Structure of the Study

In addition to the current chapter, there are five other chapters, the second chapter talks and summarizes the empirical previous studies that discuss the phenomenon of corruption, the third chapter gives the theoretical framework of the study, the fourth chapter shows the methodology of the study that explain the variables and the model of the study that will help this study to measure the effect of corruption on economic growth, the fifth chapter includes the analyze of data after using Stata program, and see the different relationships between the variables, the last chapter discusses conclusion, the outputs and recommendations.

Chapter Two

Empirical Evidences

II.1. Introduction

II.2. Evidences on Corruption

II.3. Issues Raised from Empirical Evidences

II.4. The Contribution of the Study

II.5. Conclusion of the Chapter

II.1. Introduction

The main objective of this chapter is to find out the previous studies about corruption by putting the objective about each empirical evidence, and what the method they took to analyze their data, and where they did their study, and what's the result of this previous study. In addition, we discuss the different between this study and the empirical evidences.

II.2. Evidence on Corruption

Shleifer et al. (1993): Corruption

This paper presented two propositions about corruption. First, the structure of government institutions and the political process are very important determinants of the level of corruption. In particular, weak governments that do not control their agencies experience very high corruption levels. Second, the illegality of corruption and the need for secrecy make it much more distortionary and costly than its sister activity, taxation. These results may why, in some less developed countries, corruption is so high and so costly to development. This paper showed that economic and political competition can reduce the level of corruption and its adverse effects.

Tirole (1996): a Theory of Collective Reputations (with Applications to the Persistence of Corruption and to Firm Quality)

The paper is a first attempt at modeling the idea of group reputation as an aggregate of individual reputations. A member's current incentives are affected by his past behavior, and because his track record is observed only with noise, by the group's past behavior as well. The paper thus studied the joint dynamics of individual and collective reputations and derives the existence of a common trait as is usually done in the literature. It shows that new members of an organization may suffer from an original sin of their elders long after the latter are gone, and it derives necessary and sufficient conditions under which group reputations can be rebuilt. The paper applies the theory to analyze when a large firm can maintain a reputation for quality.

Tanzi (1998): Corruption around the World

The paper surveyed and discussed issues related to the causes, consequences, and scope of corruption and possible corrective actions. It emphasized the cost of corruption in terms of economic growth. It also emphasized that the fight against corruption may not be cheap and cannot be independent from the reform of the state. Tanzi also said that if certain reforms are not made, corruption is likely to continue to be a problem regardless of actions directly aimed at curtailing it. He argued that it is not possible to measure corruption, but it is possible to measure perceptions of corruption. He used

analytical approach in his paper, and he found various indices have been developed by several institutions and have been used by various researchers. In the end, he concluded that actions can be taken to reduce corruption, but the fight against it cannot be seen independently from the need to reform the role of the state. He's reason is that a certain role of the state almost inevitably creates a fertile ground for corruption.

Leite et al. (1999): Does Mother Nature Corrupt?

This paper argued that natural resource abundance creates opportunities for rent-seeking behavior and is an important factor in determining a country's level of corruption. In a simple growth model, we illustrate the interrelationships between natural resources, corruption, and economic growth, and discuss potential anti-corruption policies. They showed that the concentration of bureaucratic power. Furthermore, the growth effects of natural resource discoveries and anticorruption policies crucially depend on the economy's state of development. We empirically corroborate the model's implications in a cross-country framework with both corruption and growth endogenized. This paper used the international country risk guide (ICRG) corruption index originally introduced into the academic literature by Knack and Keefer (1995). This paper showed that the existence of corruption always reduced growth compared to the non-corruption case.

Treisman (2000): The Causes of Corruption a Cross-National Study

this paper aimed to analyze several indexes of perceived corruption compiled from business risk surveys for the 1980s and 1990s, used three annual indexes of perceived corruption (for 1996, 1997, and 1998) prepared by the organization Transparency International (TI) to assess the explanatory power of various theories of the causes of corruption. The TI index constitutes a poll of polls, compiled by a team of researchers at Gottingen University used information from up to 12 individual surveys and ratings. Treisman found strong and robust support for five arguments and slightly weaker support for a sixth. First, he found that countries with Protestant traditions and those with more developed economies have higher quality governments. Both factors are significantly and robustly associated with lower perceived corruption.

Brunetti et al. (2001): a Free Press is Bad News for Corruption

This paper tested the proposition that a free press may be a powerful control on corruption. They found evidence of a significant relationship between more press freedom and less corruption in a large cross-section of countries. This result is robust to specification and sample and the relationship is not sensitive to the choice of a particular measure of corruption or of press freedom. Furthermore they presented evidence which suggests that the direction of causation runs from higher press freedom to lower corruption.

Gupa et al. (2002): Does Corruption Affect Income Inequality and Poverty?

This paper provided evidence that high and rising corruption increases income inequality and poverty. An increase of one standard deviation in corruption increases the Gini coefficient of income inequality by about 11 points and income growth of the poor by about 5 percentage points per year. These findings are robust to use of different instruments for corruption and other sensitivity analyses. The paper discussed several channels through which corruption may affect income inequality and poverty. An important implication of these findings is that policies that reduce corruption will most likely reduce income inequality and poverty as well.

Seligson (2005): The Measurement and Impact of Corruption Victimization

This paper proposed a corruption-victimization measure based on a survey research approach to the measurement problem, and discussed (in a non-technical fashion) its strengths and limitations. The paper presented data from studies conducted by the Vanderbilt University Latin American public opinion project (LAPOP), and demonstrated the impact of corruption victimization on belief in the legitimacy of the political system, a critical element in democratic political stability. This paper emphasized the importance of measuring corruption experience in order to be able to show who its victims are and to demonstrate that those who saw corruption as building ties between rulers and

the ruled were wrong. It is also shown in this paper that corruption lowers interpersonal trust, presumably negatively affecting civil society relations.

M. Bird (2008): The Impact of Corruption, Voice and Accountability

This paper argued that more legitimate and responsive state is an essential factor for a more adequate level of tax effort in developing countries and high income countries. While at first glance gave such advice to poor countries seeking to increase their tax ratios may not seem more helpful than telling them to find oil, it is presumably more feasible for people to improve their governing institutions than to rearrange nature's bounty. Improving corruption, voice and accountability may not take longer nor be necessarily more difficult than changing the opportunities for tax handles and economic structure. The paper also showed that high income countries have also the potential of improving their tax performance through improving their institutions. The key contribution of this paper is to extend the conventional model of tax effort by showing that not only do supply factors such as corruption, voice and accountability also determine tax effort to a significant extent. This paper used empirical evidence focused on developing countries and high income countries by testing tax effort-tax revenue as a percentage of gross domestic product (GDP). The fundamental conclusion of this paper is that a more legitimate and responsive state is likely an essential precondition for a more adequate level of tax effort in developing countries and also high income countries.

Dong (2011): The Causes and the Consequences of Corruption

This thesis comprehensively studied the causes and consequences of corruption in both cross-country and within-country contexts, mainly focused on china. The thesis commenced by extensively investigating the causes of corruption. The thesis used standard economic approach, this study found that in china regions with more anti higher openness, more access to media, higher relative wages of government employees, and a greater representation of woman in legislature are markedly less corrupt; while the social heterogeneity, deregulation and abundance of sources, substantially breed regional corruption. This study also observed a positive relationship between corruption and the economic development in current China that is mainly driven by the transition to a market economy. Focused on the influence of political institutions on corruption, the thesis then provided evidence that a high level of political interest helps to reduce corruption within a society, while the effect of democracy upon corruption depends on property rights protection and income distribution. With the social economic approach, however, the thesis presented both cross-country and within-country evidence that the social interaction plays an important role in determining corruption.

Rana (2012): Organized Crime and Corruption: a Theoretical and Empirical Analysis

The study aimed to investigate the phenomena of corruption and organized crime. They utilized dynamic panel model estimations for a data set of 19 Italian regions over the period 1983-2009; they found that corruption and organized crime have both a growth-inhibiting effect. Additionally, they found that in the presence of criminal organizations the negative impact of corruption on growth is less severe. The study concluded that strengthening the measures against corruption would have exactly the opposite effect than that desired (by increasing the criminal activity and deterring individuals from becoming entrepreneurs). For this reason we can conclude that, in the presence of both the phenomena, the government should evaluate alternative strategies, by concentrating on fighting organized crime rather than corruption.

Matallah et al. (2014): Corruption and Economic Growth: Empirical Evidence from Algeria

This study investigated in the impact of corruption on economic growth in Algeria over the period 1995-2011 by using the Heritage Foundation's freedom from corruption index and the World Bank's control of corruption indicator. The Johansen cointegration test applied in order to investigate the existence of long-run relationships among the tested variables. As well as, the vector error correction model (VECM) employed to analyze the long-run and short-run

dynamic relationships among the various time series. The initial findings indicated that both 'freedom from corruption' and 'control of corruption' have long run positive effects on enhancing economic growth in Algeria. It is also revealed that the human capital has an insignificant positive impact on economic growth in the long term. Moreover, VECM analysis suggested that all explanatory variables have positive and insignificant short-run effects on promoting economic growth except the 'control of corruption' indicator. These results support the view that corruption sands the wheels of economic growth. Thus, the Algerian government should root out this scourge by finding the relevant solutions that must be supported with effective weapons such as transparency and tougher accountability standards.

HUI YUN et al. (2015): The Relationship between Corruption and Economic Growth in Malaysia

This study investigated the long run relationship between corruption and growth in Malaysia over the period from 1984 to 2013. This study would like to determine how the corruptions affect economic growth in Malaysia through various channels of transmission such as trade openness, government spending, investment and human capital. Autoregressive Distributed Lag (ADRL) approach is used to examine whether a long run relationship exists between corruption and growth in Malaysia while taking into account of other macroeconomic variable such as trade openness, investment, human capital and

government spending. By using this approach, negative relationship is found between corruption and growth in the long run but it will have positive impact to economic growth through channels of trade openness and government spending. However, FDI and human capital are statistically insignificant to affect Malaysia's economic growth. This finding suggested that corruption is detrimental to Malaysia's economic growth in the long run and for policy wise the main concern of policymakers should be reducing corruption and increasing awareness of Malaysian to against the corruption in order to achieve high economic growth in Malaysia.

Ertimi et al. (2016): The Impact of Corruption on Economic Growth in OIC Countries

The purpose of this study is to analyze whether the levels of perceived corruption in a cross-section of countries have affected their economic growth rates over the years 2003-2010. The study is conducted with a regression on a sample of 14 countries and eight variables for the time period in question. The models are constructed on the basis of the endogenous growth theory. Results using economic freedom index (EFI) shows that corruption has a negative impact of economic growth in the countries in question. The results were to some extent divergent from the predictions made based on theory and previous research. In the regressions conducted in this study, the use of the EFI Index as a measure of corruption in the regression indicated a negative impact on economic

growth in the countries included. It was concluded that corruption contributed negatively to economic growth. Further, by comparing the results of the different regressions, looking at the correlation matrix, it was found that there was a negative correlation between the corruption variable (for EFI index) and economic growth. This correlation was negative; the lower the level of corruption the higher that of economic growth. Countries with lower annual economic growth included in this study had in general lower levels of corruption between 2003 and 2010. This study assumed that some other factors drove economic growth, and that corruption did not present as a strong enough force to counteract it.

II.3. Issues Raised from Empirical Evidence

We found a set of benefits from the previous studies which talked about corruption from many sides; we can summarize them in the following points:

- Understanding the subject to be studied well and deeply in order to know what to study and how to study it.
- Choose the variables of the study clearly and accurately in order to study without errors
- Comparing the results of this study with the results of the previous studies.
- Build the methodology of the study in systemic scientific way based on the models followed by most of the scientific studies and researches that deal with the subject matter.

II.4. The Contribution of the Study

Through our review of the previous studies that talked about corruption from many sides, the study came complementary to the previous studies and we can classify the differences in the following points:

- **The period:** all the previous studies that we surveyed, their period was until 2010 and the period of this study will be from 1990 to 2015 which will give us a new results of the study.
- **The place of study:** as we saw in the previous studies some of them study the corruption around the world taking many countries and some of them study their own country, therefore we will apply our study on our country Algeria to be the basic rule of choosing the variables and the way to analyze them.
- **The dependent variable:** in our subject we will go deeper into our study taking economic growth as a dependent variable unlike some previous studies that talked about economic growth but not deeply.
- **The statistical tool:** this study uses multiple linear regression method because it has other independent variables then corruption such as investment and population growth which makes it imperative for us to use this method. And employ stata package to analyze data which is more accurate comparing with other ancient packages.

II.5. Conclusion of the Chapter

The main objective of this chapter is to survey some relating previous studies in corruption, and its effects from different sides around the world which gave this study the method of how to build the theoretical framework in chapter three, and the way to analyze the data in chapter four.

Chapter Three

Theoretical Framework

III.1. Introduction

III.2. Corruption

III.2.1. Concept of Corruption

III.2.2. The causes of Corruption

III.2.3. The Types of Corruption

III.3. The Economic Growth

III.3.1. The Concept and the ways of measuring Economic Growth

III.3.1.1. General concept about Economic Growth

III.3.1.2. Measuring Economic Growth

III.3.2. The Effects of Corruption

III.3.2.1. The Positive effect of Corruption

III.3.2.2. The Effect of Corruption on Economic Growth

III.4. Conclusion of the Chapter

III.1. Introduction

The main objective of this chapter is to give a basic concepts about corruption, and economic growth theoretically, therefore, we highlight on its different definitions, we will also have to understand the causes that make corruption exist, and why it cannot be eliminated permanently. From here we must know the most important types of this phenomenon and how we can classify it. After that we go to economic growth, how to define it, and how we measure it. Finally, we accord those two variables and show the effect of corruption on economic growth theoretically.

III.2. Corruption

III.2.1. The Concept of Corruption

III.2.1.1. Different Perspectives on the Meaning of Corruption:

Societies may differ in their views as to what constitutes corruption, although the concept finds universal manifestations. Experts have different perspectives on the meaning of this universal phenomenon. As follows:

III.2.1.1.1. The Economist's Perspective

Some economic writings tend to define corruption as a situation where the benefit (to a corrupt agent) of acting against the expectation of a principal outweighs the cost, or where a public good, service or office is sold for personal

gain. Others describe it in terms of the exploitation of economic rents which arise from the monopoly position of public officials. In either sense, to quote one economist, corruption "provides a market price where a market is not allowed. (Shihata, 1996, P.453)

III.2.1.1.2. The Political Scientist's Perspective

political scientist Delaney (2005, p.7) defined corruption as 'behavior which deviates from the formal duties of a public role because of private-regarding (personal, close family, private clique) pecuniary or status gain; or violates rules against the exercise of certain types of private-regarding influence.

III.2.1.1.3. The Legal Perspective

Illegality; a vicious and fraudulent intention to evade the prohibitions of the law. The act of an official or fiduciary person who unlawfully and wrongfully uses his station or character to procure some benefit for himself or for another person, contrary to duty and the rights of other .
(<http://thelawdictionary.org/corruption/>, seen:11-02-2017at 10:20 am.)

III.2.1.1.4. Public Administration Specialist's Perspective

The public administration sees corruption in the abuse of public resources and the use of public offices for private gains contrary to prescribed norms. (Kligaard, 2015, P.18)

III.2.1.2. Definition of Corruption from Perspective of International Organization and Bodies

III.2.1.2.1. Definition of Corruption by the World Bank

The World Bank settled on a straightforward definition: the abuse of public office for private gain.

Public office is abused for private gain when an official accepts, solicits, or extorts a bribe. It is also abused when private agents actively offer bribes to circumvent public policies and processes for competitive advantage and profit. Public office can also be abused for personal benefit even if no bribery occurs, through patronage and nepotism, the theft of state assets, or the diversion of state revenues. (<http://www1.worldbank.org/publicsector/anticorrupt/corruptn/cor02.htm#define> seen 11-02-2017 at 11:15 am).

III.2.1.2.2. Definition of Corruption by Transparency International

Generally speaking as “the abuse of entrusted power for private gains”. Corruption can be classified as grand, petty and political, depending on the amounts of money lost and the sector where it occurs.

Grand corruption consists of acts committed at a high level of government that distort policies or the central functioning of the state, enabling leaders to benefit at the expense of the public good. Petty corruption refers to everyday abuse of entrusted power by low- and mid-level public officials in their

interactions with ordinary citizens, who often are trying to access basic goods or services in places like hospitals, schools, police departments and other agencies.

Political corruption is a manipulation of policies, institutions and rules of procedure in the allocation of resources and financing by political decision makers, who abuse their position to sustain their power, status and wealth.

(<http://www.transparency.org/what-is-corruption#define> ,sees 11-02-2017 at 11 :21 am.)

III.2.1.2.3. Definition of Corruption by International Interpol

Corruption is universal. It affects all regions of the world and all levels of society, but the impact is greatest in developing countries. The effects are far-reaching: corruption can undermine political, social and economic stability, and ultimately threaten the safety and security of society as a whole. Corruption creates a fertile ground for organized criminal activities, even terrorism, as criminals are aided in their illegal activities by the complicity of corrupt public officials. (<https://www.interpol.int/Crime-areas/Corruption/Corruption> , sow 11-02-2017 at 11:32 am)

III.2.1.2.4. Definition of Corruption by the United Nation Convention

When the negotiations of the United Nations Convention against Corruption began in 2002, one option under consideration was to avoid the problem of defining corruption by simply listing a whole series of specific types

or acts of corruption. After much discussion “corruption” was not defined at all. (United Nation handbook, 2004, P.23)

III.2.2. Causes of Corruption

Many of studies point out the causes of corruption in various sides there are who classified the causes to direct factors which connected with the activities of the state, and especially with the monopoly, and discretionary power of the state. Indirect factors such as quality of the bureaucracy, level of public sector wages and penalty systems. (Tanzi, 1998, P.10-16)

Others like Voskanyan (2000, P.17) divide the causes of corruption into three categories, cultural factors, psychological, and system-related.

Thus, the most important and popular causes categorized into four main factor-groups, specifically: political and judicial factor; historical factors; social and cultural factors and economic factors.

III.2.2.1. Political Factors

The political reasons of the widespread of corruption of the most important and dangerous reasons, which confirms the tests, reports and studies in this field that summit corruption quickly move to lower levels protected and covered by leaderships complicit with it, where corrupt elements dominate on public property and have the authority which it able to exploit it for their own interests.

The most important political causes of corruption could be straitening it in the following points:

-The Democratic Environment

The democracy has been highlighted on it in many studies related by corruption, this latter linked to a large extent by the political system, and democracy which influence the political competition and, therefore, the impact on transparency and integrity, as well as adversely affects the freedom of association, and the press which leads to many opportunities of corruption, and it makes it exacerbated dramatically in countries with weak democracy, especially in underdeveloped and developing countries, but that's not mean that corruption is not exist in the developed countries with high democracy and opened political system. (Rana, 2011, P.13-14)

-political corruption happens in the countries through the electoral process, and attract supporters, and fundraising, and attempts to gain the supports of voters by the means that suit the needs of each slice which start by making promises by the candidate, for the elections and ends to buying votes from voters by amount of cash, and in-kind, when the candidate win he finds himself obligated to seek ways that enable him to recover the amounts spent to get to his location, and arrangement the additional amounts for re-election again. (Arab Development Organization, 2008, P.12)

-lack of commitment to the principle of separation balanced between the three authorities, executive, legislative and judicial in the political system and the tyranny of the executive branch to the legislative branch which leads to a disruption the principal of mutual control, as that the fragility of judicial system and the absence of independence and integrity considered from the encouraging causes of increasing corruption. (Mosleh, 2013, P.30) ^[Arabic]

-Political Stability

Also political instability may matter for corruption, the expectation being that more unstable countries will have higher levels of perceived corruption. Besides the probability of getting caught, officials will consider the consequences if they do. The punishments for criminal malfeasance are obviously relevant, short of prosecution; offenders are likely to lose their job, whether by recall, if elected, or dismissal, if appointed. The cost of this involves depends upon the benefits provided by that job, such as the level of the salaries in the public office and length of time for which an honest official could expect to enjoy them. A high degree of political stability will lengthen official's time horizon. And a bureaucracy that offers long-term careers with chances of advancement will promise greater future benefit to a low level bureaucrat than one in which jobs are more insecure and promoting less likely. Besides losing their jobs, corrupt officials often face social dishonor if exposed to a degree that

depends upon the prevailing norms and expectations within the culture. From all of these arguments. (Treisman, 2000, P.7-8)

-The Judicial System and Origin of the Legal System

The judicial system is also expected to play a role in controlling corruption. The role of the legal system and the rule of law have featured significantly in many studies on the quality of governance and its consequences for development. Strong legal foundation and efficient legal system protect property rights and provide for the enforcement of contracts undermines the operation of the free market, and in turn, reduces the incentives for agents to participate in productive activities. But legal systems may differ in the degree to which property rights are protected and in the quality of government they provide. Empirical work suggest that the common law system mostly found in the colonies of Britain, appears to have better protection of property rights compared with the civil law system typically associated with the former colonies continental Europe. (Rana, 2011, P.15)

-The system of governance was characterized by tyranny and dictatorship and the absence of good governance and democracy mechanisms and this leads to widespread and worsening the phenomenon of corruption, where there is a consensus system of governance in which participation and integrity absent is more fertility systems of the spread of corruption among the individuals of society. (Doganis, 2007, P.67)

-The weakness of the role of civil society institutions and private institutions in the oversight of governance performance. (Kanza et al, 2015, P.23)^[Arabic]

-The misuse of discretionary power and lack of trust in the safety of interpretation and application of laws and regulations in the public sector. (Al Bishri, 2007, P.66)^[Arabic]

-The existence of laws or regulations or legislations encourage to corruption, and we see that It's necessary to add this reason where often the law was a mean of means of corruption that's when reflect about a viewpoint of dictatorship regulations so the legislator seeks to create a crimes for acts its origin permissible for putting the citizen in a place of incrimination and weakening his legal situation which leads the individual to circumvention to this legal texts by all the means often be illegal such as bribes crimes and forgery and impersonate... (Al-Lami, 2007, P.30)^[Arabic]

III.2.2.2.Historical Factors

To a large extent, it is difficult to separate the historical factors from the political and judicial factors since the effectiveness of the judicial system is dependent on the colonial heritage of the country in question. La Porta et al (1999) argue that a common law legal system, and with superior governance, with more effective judicial system, and with better protection of property rights compared with the civil law system. Also Treisman (2000), as seen above,

explores the direct influence of historical tradition on perceived corruption, showing that countries with a history of British rule were rated “less corruption”. (Rana, 2011, P16)

III.2.2.3. Social and cultural factors

This group of factors captures the social and cultural characteristics of a country that may impact upon the commonness of corruption in given country, such as religion and ethnic and linguistic fractionalization.

a- Religion

Religion may also influence how individuals view their loyalties to family as opposed to other citizens__what Edward Banfield has called “familism” which in turn may affect the level of nepotism. A second pathway by which religion could affect corruption levels is via the historical pattern of influence that developed in different settings between church and state. In religion traditions such as 1protestantism, which arose in some version as dissenting sects opposed to the state-sponsored religion, institutions of the church may play a role in monitoring and denouncing abuses by state officials. In other traditions such as Islam where church and state hierarchies are closely intertwined, such a role may be absent. (Treisman, 2000, P.7)

b- Ethnic and Linguistic Fractionalization

Ethnic and linguistic fractionalization of a society may also contribute to the commonness of corruption in a given country. The evidence is, however, mixed. Shleifer and Vishny (1993) suggested that countries where the population consists of several different ethnic groups are more likely to be characterized by a less organized, and therefore more deleterious, type of corruption¹⁹. This hypothesis is used in Mauro (1995), where it is found that an index of ethno-linguistic fractionalization is correlated with corruption. Also, La Porta et al. (1999) found evidence that, in societies that are more ethno-linguistically diverse, government's exhibit inferior performance. Later, Alesina et al. (2003) have presented evidence that ethnic and linguistic fractionalization has a statistically significant negative impact on corruption, in the sense that countries that are ethno-linguistically diverse are associated with higher perceived levels of corruption. However, Tanzi (1994) argues that public officials are more likely to do favors to their relatives in societies where family ties are strong, and this can more likely happen in societies without, or with less, ethno linguistic fractionalization. (Rana, 2011, P.17)

Other Social and Cultural Causes

- The collapse of moral and value of the individual.
(<http://www.mof.gov.iq/Lists/ResearchesAndStudies/8.pdf.19:57-2016/12/25>, P7)

- Racism where some developing and developed socials still practiced racism on the basis of color or gender or religion or geographical origin of human, which leads to deterioration of the economic and social conditions for minorities that suffer from this discrimination and ill-treatment so in general witnessed in them the desire of revenge from the society.
- Culture and civilization clash with official work values with official work values so often a gap occurring in many developing and underdeveloped countries between the culture and civilizational values and the official work values based on the discipline, secretariat, honor, so the presence of friction and interaction between different civilizations and cultures are likely to penetrate happen of foreign culture and civilization values which leads to a change of behavior and official work values, and then occurrence the assault on the public money crimes, especially when the material values become higher than the religion and moral values. (Salah et al, 2012, P.6)^[Arabic]
- The absent of moral and religion awareness, with double role civil society and the foreign western cultural invasion. (<http://www.univ-medea.dz/Fac%5CD%5CManifestations%5CProtection%20argent%20et%20contre%20la%20corruption2009-2010/4.pdf>, 21:33-2016/12/23, P.8)
- Hiring the regional and clan and family affiliations in official dealing and in pressure on leaders to investigate gains and advantages wrongfully and this evident in the appointment process and filling posts and the granting agencies, licenses and other. (Bousayoud, 2013, P.26)^[Arabic]

- The absence of internal social mechanisms applying quality management services.(Al Bishri, 2007, P.66)^[Arabic]
- The spread of ignorance in the community which contributing to the spread of corruption, as there is a general ignorance of the rights of the citizen and his right to be informed and accountability on the role of government and its work in many fields. (Mosleh, 2013, P.30)^[Arabic]

III.2.2.4. Economic Factors

- Institutional Quality

Broadman and Recanatini for a sample transition economies in Europe and central Asia that higher barriers to market entry lead to higher corruption. Djankov et al are equally concerned with the nature of entry regulation. They determine the number of procedures required for starting a new business for a cross section of 71 countries, these variables with a country's level of corruption for a variety of specifications and control variables. This impact of corruption supports the argument that entry regulation often does not serve to correct for market failure but brings about problems of its own. (Lambsdorff, 2005, P17)

- It is obvious that national individuals will pay bribes only if they can get a higher marginal benefit from it. Economic rents related to discretionary power are the necessary condition of the incidence of corruption. Discretionary powers without related rents will hardly lead to corruption.

Ades and Di Tella(1999) show that countries where firms have higher rents tend to be more corrupt. National resource exploitation is an activity of particular high rents that are concentrated and easily exploited. Leite and Weidman (1999) hence find in their empirical analysis that the incidence of corruption depends significantly on natural resource abundance. However, Treisman (2000) did not provide strong evidence that fuel and mineral exports are positively correlated with the level of corruption. (Dong et al, 2010, P.8)

- Trade restrictions are the prime example of a government induced source of rents. If importing a certain good is subject to quantitative restriction (for example, only so many foreign automobiles can be imported each year), the necessary import licenses become very valuable and importers will consider bribing the officials who control their issue. More generally, protecting a home industry (such as plywood manufacturing) from foreign competition through tariffs creates a semi-monopoly for the local industry. Local manufacturers will lobby for the establishment and maintenance of these tariffs and some may be willing to corrupt influential politicians to keep the monopoly going. Studies have shown that a very open economy is significantly associated with lower corruption. In other words, countries tend to be less corrupt when their trade is relatively free of government restrictions that corrupt officials can abuse. (Mauro, 1997, P.4)

- Poverty

Poverty not only encourages corruption, but corrupt public institutions in turn exacerbate poverty. The poor engage in corrupt practices out of desperation, but the only people who benefit in the long run are those already in power. It's no coincidence that the most corrupt countries often have the poorest citizens, or are otherwise ravished by war and violence. 80% of Africans live on less than \$2 a day. In 2010, the United Nations estimated that 239 million people in sub-Saharan Africa were undernourished. When the poor do not have what they will eat, they are forced to make money through cut-corners which are corrupt. The countries at the bottom of the corruption rankings, mostly in northern Europe, are among the wealthiest in the world. While it is difficult to say whether poverty causes corruption or corruption causes poverty, there is no question that the two are linked. (<https://soapboxei.coms/world-polities/corruption-rolutionandcuses> 13/02/2017-21:42.)

- The Size of the Public Sector

A number of possible causes of corruption are related to the extent of government intervention in the economy, and more generally, to variables (such as, for example, the level of import tariffs, subsidies, or civil service wages) that are determined by government policy. When pervasive regulations exist and government officials have an excessive degree of discretion in applying them, and when regulations lack simplicity and transparency, private parties may be willing to pay bribes to government officials in order to obtain any rents that the

regulations may generate (Mauro, 1996). Actually, a strong suspect is that many regulations, whatever their original rationale might have been, are kept in place with the sole propose of allowing bribes to be collected. (Rana, 2011, P.19)

- The big widening of state intervention in economic field and survival of the government runs a large property.
- Low of income level of the perpetrator of the crime of corruption compared of the level of inflation or domestic prices, which makes the real income unable to satisfy the needs of living necessary, and from this we find the employer himself compelled to accept the bribery to pay the material shortfall resulting from the weakness of his income. (Al-Sakarna, 2009, P.284)^[Arabic]
- **Price Controls**

Whose purpose is to lower the price of some good below its market value (usually for social or political reasons), are also a source of rents and of ensuing rent-seeking behavior. Price controls create incentives for individuals or groups to bribe officials to maintain the flow of such goods or to acquire an unfair share at the below-market price. (Mauro, 1997, P.5)

III-2-3- Types of Corruption

The types of corruption are strictly linked to the theoretical view on corruption (Bigovic, 2005, P.5). Evidence of corruption can be viewed through more than simple cases of unethical government officials taking money from the

public purse for their own benefit. It is also seen in dysfunctional government are often only able to obtain public services in exchange for a bribe, and as a result progress is solved.

(<http://www.parliamentarystrengthening.org/corruptionmodule/pdf/corruptionunit1.pdf> 25/02/2017 at 21:03, P: 2)

And from here we can give a classification of every group of types of corruption:

III.2.3.1. Corruption According to the Size (Level or Range)

III.2.3.1.1. Petty Corruption

Petty corruption is defined thus: "Small scale, bureaucratic or petty corruption is the everyday corruption that takes place at the implementation end of politics, where the public officials meet the public". Petty corruption is bribery in connection with the implementation of existing laws, rules and regulations, and thus different forms grand or political corruption (we will talk about these latter later).

Petty corruption refers to the modest sums of money usually involved, and has also been called "low level" and "street level" to name the kind of corruption that people can experience, more or less, daily, in their encounter with public administration and services like hospitals, schools, local licensing authorities, taxing authorities, and so on. (Muntingh, 2006, P.17)

III.2.3.1.2. Grand Corruption

Involves big or massive transactions through among others contracts and concession. It can be in construction, huge purchase, provisions and mining. It takes the form of skewed investment decisions that work for personal gain; transfer of cash money from public to private investor; illegitimate tax exemptions, tax holidays, ghost projects (in which money is received but the intended construction never happens) and money laundering (<http://www.parliamentarystrengthening.org/corruptionmodule/pdf/corruptionunit1.pdf> 20/02/2017 at 19:22, P: 2). This type of corruption often occurs at the highest level of the establishment. (El Serifi, 2008, P.32)^[Arabic]

Grand corruption and petty corruption tend to go hand in hand and to be mutually reinforcing. (Peschl et al, 2012, P.8)

III.2.3.1.3. Systemic Corruption (or endemic corruption)

Is corruption which is primarily due to the weaknesses of an organization or process. It can be contrasted with individual officials or agents who act corruptly within the system.

(<http://www.parliamentarystrengthening.org/corruptionmodule/pdf/corruptionunit1.pdf> 21/02/2017 at 20:13).

III.2.3.2. Corruption According to the Organization Degree (Ezeogidi, 2013, P.74)

III.2.3.2.1. Organized Corruption

A well organized system of corruption in which there is a clear idea:

- ✚ Of whom to bribe.
- ✚ How much should be offered.
- ✚ And are confident that they will receive the favor in return.

III.2.3.2.2. Chaotic Corruption

A disorganized system where there is no clarity regarding whom to bribe and how much payment should be offered there is:

- ✚ No guarantee that further bribes will not have to be paid to other officials.
- ✚ No reasonable assurance that the favor will be delivered.
- ✚ No coordination between the recipients of benefits. With the result.
- ✚ That the price of corruption is often inflated.

III.2.3.3. Corruption According to the kind of Sector that Spread in it

III.2.3.3.1. Corruption in Public Sector

The claimant was and still prevail in institutions, even those in power themselves complain of corruption in their sermons and statements and hear their claims of reform and fight it because the public sector is a breeding ground

for administrative deviations and financial theft and that the weakness or absence of oversight and accountability mechanisms. (Bousayoud, 2013 P.20)^[Arabic]

Judge Noonan described it as follows:”The core of the concept of a bribe in an inducement improperly influencing the performance of a public function meant to be gratuitously exercised”.

(<http://arizonajournal.org/wpcontent/uploads/2015/11/HenningArticle.pdf.23/02/2017> at 22:51, P.801)

It can be said that public sector corruption is rampant corruption in the government administration and all public bodies that followed, one of the biggest obstacles to development; it is abuse of public office for personal purposes and interests. (Amin, 2009, P.66)^[Arabic]

III.2.3.3.2. Corruption in Private Sector

It means the exploitation of the influence of the private sector to influence the course of public policy of the state, using various means. (Abdel Aali, 2013, P.27)^[Arabic]

Hellman et al (2003), find that state capture has been the norm in a large number of transition economies in which public officials and politicians sell lucrative advantages and preferences to private firms. Faccio (2006) in a study of political connection in 47 countries finds that there are significant benefits to engage in state capture. The benefits for the captor firm include competitive

advantages in government contracts. Access to limited governmental goods (such as permits and licenses), lower taxes, and regulatory leniency. (Puccio, 2013, P.8)

III.2.3.4. Corruption According to the Geographic Extent (Abdel Aali, 2013 P28)^[Arabic]

III.2.3.4.1. Local Corruption

It is corruption that is spreading within the state and not exceed the regional borders, nor out of being a corruption of junior staff and individuals, who are not related to crimes in their wrongdoing and crimes by foreign companies.

III.2.3.4.2. International Corruption

This type of corruption takes a wide range and globally, surpassing the regional state borders and even continents, and this in the context of globalization, which has become not recognize the border.

And international Corruption has multiple tools, including Multinational Corporation and international organizations, and the International Monetary Fund ect ...

III.2.3.5. Corruption According to the Level

III.2.3.5.1. Top-Corruption

Top-corruption of the most common in developing countries, corruption, a private manager or president or the first official corruption, so taking advantage of good works and public funds without supervision or control thus taking advantage of their authority and sovereignty. (Salem, 2003, P.143)^[Arabic]

III.2.3.5.2. Institutional Corruption

Like all forms of corruption, the institutional kind involves the improper use of public office for private purposes.

Recognizing institutional corruption is not always easy because it is so closely related to conduct that is a perfectly acceptable part of political life. The individual member's contribution to the corruption is filtered through institutional practices that are otherwise legitimate and may be duties of office. (Thompson, 1995, P.7)

III.2.3.6. Corruption According to the Return (Bousayoud, 2013, P.21)^[Arabic]

III.2.3.6.1. Substantial Corruption

It is aiming to get the material and financial returns.

III.2.3.6.2. Intangible Corruption

It is in cases that are not required in it a fee, such as: mediation, favoritism, nepotism, and misuse power utilization ect...

III.2.3.7. Other Types of Corruption

III.2.3.7.1. Economic Corruption

Economic corruption can be defined as the sacrifice of the principal's interest for the agent's interest. Economic corruption result in making profits. It has implication of determining the loss of income, how and how much for the principle, the agent, the state, the consumer, the economy ect... (Hernàndez, 2008, P3)^[Arabic]

III.2.3.7.2. Administration Corruption

Includes persons like higher authorities, officers, police officers, clerks, peons, ect. For example, if we give money then we can get anything difficult, easily. Give money office, you will get driving licenses. In hospital, court, and other government. Offices everywhere you have to give money for kind of job.

(<http://WWW.indiastudychannel.com/resources/138785-The-different-types-Corruption.aspx>

23/02/2017-21:48)

III.2.3.7.3. Ethical Corruption

Ethical is a about moral and ethical phenomena (Klimsza, 2014, P20). Ethics corruption is what makes the individual lose his humanity and follow his desire satisfies his needs, like stealing, accept bribes ect...

III.2.3.7.4. Episodic Corruption

This type of corruption occurs when honest behavior is the norm, corruption the exception, and the dishonest public servant is disciplined when detected. (Tavanti, 2013, P.4)

III.2.3.7.5. Cultural Corruption

It mean the deviation of any group of society from the public constants of nation, which dismantles its identity and heritage culture, which is unlike other types of corruption are difficult consensus on the condemnation or enact legislation criminalized, so it's hiding behind freedom of opinion and expression and creativity. (Abdel Aali, 2013 P28)

III.2.3.7.6. Financial Corruption

Including the prices of financial deviations, the rules and financial conditions offence that regulate financial work course in the state and its institutions, and infraction of instructions of the financial control devices. (Al-Mhayni, 2009, P26)^[Arabci]

III.2.3.7.7. Political Corruption

Political corruption involves political decision-makers. It takes place at the high levels of the political system. It is when the politicians and state agents, who are entitled to make and enforce the laws in the name of the people, are themselves corrupt. Political corruption can be distinguished from bureaucratic or petty corruption, which is corruption in the public administration at the implementation end of politics. (Inge Amundsen, 1999, P.3)

III.2.3.7.8. Judicial Corruption

It's includes nepotism and mediation, and what resulting of innocent indictment and absolution of the guilty and witness falsity, and digestion of other rights.

Transparency international, a global organization promoting clean government, polled 59.661 people in 62 countries in their global corruption Barometer 2006 survey, and found that, in one-third of these countries, more than 10% of respondent who had interacted with the judicial system claimed that they or a member of their household had paid a bribe to obtain a “fair” outcome in a judicial case. In 55 of the 62 countries polled, a higher percentage of people perceived extreme judicial corruption that had paid a bribe. In 33 of the 62 countries polled, a majority of respondents described the judicial legal system of their country as corrupt. (Wang, 2012, P.2)

III.2.3.7.9. Social Corruption

Is a bug in the social values and moral corruption is a form of social corruption, corruption in the beginning spread among the group of individuals then soon spread to the majority of society. (Al-Bishri, 2007, P.50)^[Arabic]

III.2.3.7.10. Environmental Corruption

It is a vital area in which human lives and environmental Corruption includes all of sabotage damaged the soil, water or plant or air. (Kanza, 2015, P.25)^[Arabic]

III.3. Economic Growth

III.3.1. The Concept and the Ways of Measuring Economic Growth

III.3.1.1. General concepts of Economic Growth

Economic growth is in limited sense, an increase of the national income per capita, and it involves the analysis, especially in quantitative terms of this process, with a focus on the functional relations between the endogenous variables; in a wider sense, it involves the increase of the gross domestic product (GDP), gross national product (GNP), net income (NI), therefore of the national wealth including the production capacity, expressed in both absolute and relative size per capita, encompassing also the structural modifications of economy. (Haller, 2012, P.66)

Another definition, economic growth means growth of output. But output that will meet the multifarious demands of modern economy is varied in the extreme. Reducing it all-the tangible with the intangible, the like and the unlike-to a single measure and comparing the results for different periods or for different countries where the composition of output has changed or is different-perhaps considerably-must obviously present difficulties, both theoretical and practical. The measurement can never be wholly reliable, let alone precise; it can however be made to give approximations which used with due care and understanding, can be useful. (Arthur, 1964, P.1)

Economic growth is the increase in the inflation-adjusted market value of the goods and services produced by an economy over time. It is conventionally measured as the percent rate of increase in real gross domestic product, or real GDP, usually in per capita terms. (https://en.wikipedia.org/wiki/Economic_growth 28/02/2017-22:36)

Economic growth is how much more the economy produces than it did before. If the economy is producing more, businesses are more profitable, and stock prices rise. That gives company's capital to invest and hire more employees. As more jobs are created, incomes rise. Consumers have more money to buy additional products and services, driving higher economic growth. For this reason, all countries want positive economic growth. (<https://www.thebalance.com/what-is-economic-growth-3306014> 02/03/2017-23:03)

III.3.1.2. Measuring Economic Growth

Economists use many different methods to measure how fast the economy is growing. The most common way to measure the economy is gross domestic product (GDP). (<http://www.bankofcanada.ca/core-functions/monetary-policy/measuring-economic-growth/> 04/03/2017-11:45)

Gross domestic product is the market value of goods and services produced within a selected geographic area (usually a country) in a selected interval in time (often a year). (Gosh, 2007, P.1).

It counts all the output generated within the borders of a country. GDP is composed of goods and services produced for sale in the market, and also includes some nonmarket and also includes provided by the government. (Callen, 2008, P.49).

III.3.1.2.1. Measuring GDP

There are three basic approaches to measure GDP: expenditure approach, income approach, production approach.

III.3.1.2.1.1. Expenditure Approach

It's a method of measuring GDP by calculating all spending throughout the economy including consumer consumption, investing, government spending, and net export. In another words, this method measures what our country produces of a country produces by assuming that the finished goods and services

of a country equals the amount spent in the country for that time period.

(<http://www.myaccountingcourse.com/accounting-dictionary/expenditure-approach> 12/03/2017-22:52)

This is the most common way to measure and calculate GDP.

III.3.1.2.1.2. Income Approach

This method calculates earnings due to the owners of the factors of production which are used in the production of total output. (Al-Issa et al, 2006, P.97)^[Arabic]

The income approach to measuring GDP is based on the accounting reality that all expenditures in an economy should equal the total income generated by the production of all economic goods and services, it also assumes that there are four major factors of production in an economy and revenues must go to one of these four sources. Therefore, by adding all of the sources of income together, a quick estimate can be made of the total productive value of economic activity over a period of time. Adjustments must then make for taxes, depreciation and foreign factor payments. (<http://www.investopedia.com/ask/answers/070715/how-do-you-calculate-gdp-income-approach.asp>.12/03/2017-23:17)

III.3.1.2.1.3. Production Approach

Which is called the output approach, measures GDP as the difference between value of output less the value of goods and services used in producing these outputs during an accounting period. (Vu Quang Viat, 2009, P.4)

To measure the total production by this way, the total economy divides to various sectors such as farm sector, mining sector, trade sector, industry sector, tourism sector, mining sector, than the value of the total production calculated to each sector separately and collect all sectors values to reach the total production.

(Al-Issa et al, P.98)^[Arabic]

III.3.2. The Effects of Corruption

III.3.2.1. The Positive Effect of Corruption

Most studies agree that corruption is bad, but it's not mean that 100% of corruption is negative, because there is some empirical studies have proven that corruption has positive effects on economic in general and economic growth.

If we see the most popular definition of corruption “the use of public office for private gains”, the using of this definition it is not clear that corruption is bad for a country's overall welfare. For example, Leff (1964) and Huntington (1968) suggest that under rigid regulation and inefficient bureaucracy, corruption might foster economic growth. In their model, agents use “speed money” to get around bad laws and institutions. Additionally, Lui (1986) shows that bribery can be efficient in a queuing model if agents with higher values of time can to obtain a better place in line.

Also there is positive effect of corruption controlling for institution quality, even if the total effect of corruption on economic development is negative. Yet

another possible explanation is that economic growth might feed corruption by providing additional demand for bureaucrat services. (Minronov, 2005, P1-2-3)

Also corruption can unite different political, ethnic, religion and economic group regardless of their difference, it collecting actors and people with different opinion and different political background come together and uphold their relationship in order to preserve their economic advantage.

Through corruption, wealth are transferred uniformly. Some individuals stole substantial amount of treasures to build a personal platform for themselves, in this area some people are gainfully employed while others benefited from the stolen wealth. Wealth is easily circulated within a short period of time. Nowadays politicians that stole billions of dollars are force to spread the money across zones if they are to win any political seat or office.

Corruption reduces unemployment by what we call “nepotism”, because in corrupt countries the percentage of employment is too low, even for efficient employers so they exploit the relationship for they can get the job.

(<http://www.nairaland.com/2159488/opinion-6-advantages-corruption> 21/03/2017-15:29)

In my opinion, I found that corruption has conditions to be positive in economic in a given country, first corruption has no way to be good in developed countries and we can total see the negative effect if it occur like what happened in the FIFA 2015. (<http://www.bbc.com/news/world-europe-32897066> 21/03/2017-15:38)

Also corruption can be positive only in the under developing, and developing countries, which is fertile ground for corruption because of the weak democracy, and political system, and many weak points on their laws. In addition, corruption must be intrusive for a long time in the country, and bureaucracy be so strong and widespread in most sectors, because in developed country there is competition between companies which mean there is no place of bureaucracy and there is a high quality of the product, and high quality of the service, which mean the employers must be efficient and there is no way to use relationship to employ inefficient worker because it will hurt the institution in the market.

III.3.2.2. The Impact of Corruption on Economic Growth

The impact of corruption on economic growth has occupied the attention of researchers especially in last decades. In fact, numerous empirical studies indicated that there is negative relationship between corruption and economic growth, and Many researchers argued that corruption hurts the economic growth, because corruption may create uncertainty environment thereby effect on:

III.3.2.2.1. The Impact of Corruption on Public Investment

It is important to emphasize that corruption affect public investment, reduces economic growth. First, corruption can reduce growth by increasing public investment while reducing its productivity. Second, corruption can reduce

growth by reducing the quality of the existing infrastructure. A deteriorating infrastructure increases the cost of doing business for both government, and private sector (e.g., congestion, delays, break-down of machineries, etc), and thus leads to lower output and growth. The importance of infrastructure in growth has been shown in many cross-country regressions. Finally, as we said, corruption can reduce growth by lowering government revenue needed to finance productive spending, such as education. (Rana, 2011, P31)

III.3.2.2.2. The Impact of Corruption on Investment

Corruption may distort an economy through investment. This is because the bribery cost incurred will increase the cost of investment and thus discourage investment. Corruption acts as undisclosed tax that is unable to claim on tax return. Certain investment projects may be favorable based on the potential for private gains rather than societal gains. Therefore, there will be over investments in high profile and potentially ineffective projects at the expense of more important and useful investments such as health and education, which the country really needs. Examples of over investments include excessively large infrastructure projects and investment in the national defense. (Yun, 2015, P.7)

III.3.2.2.3. The Impact of Corruption on Human Capital

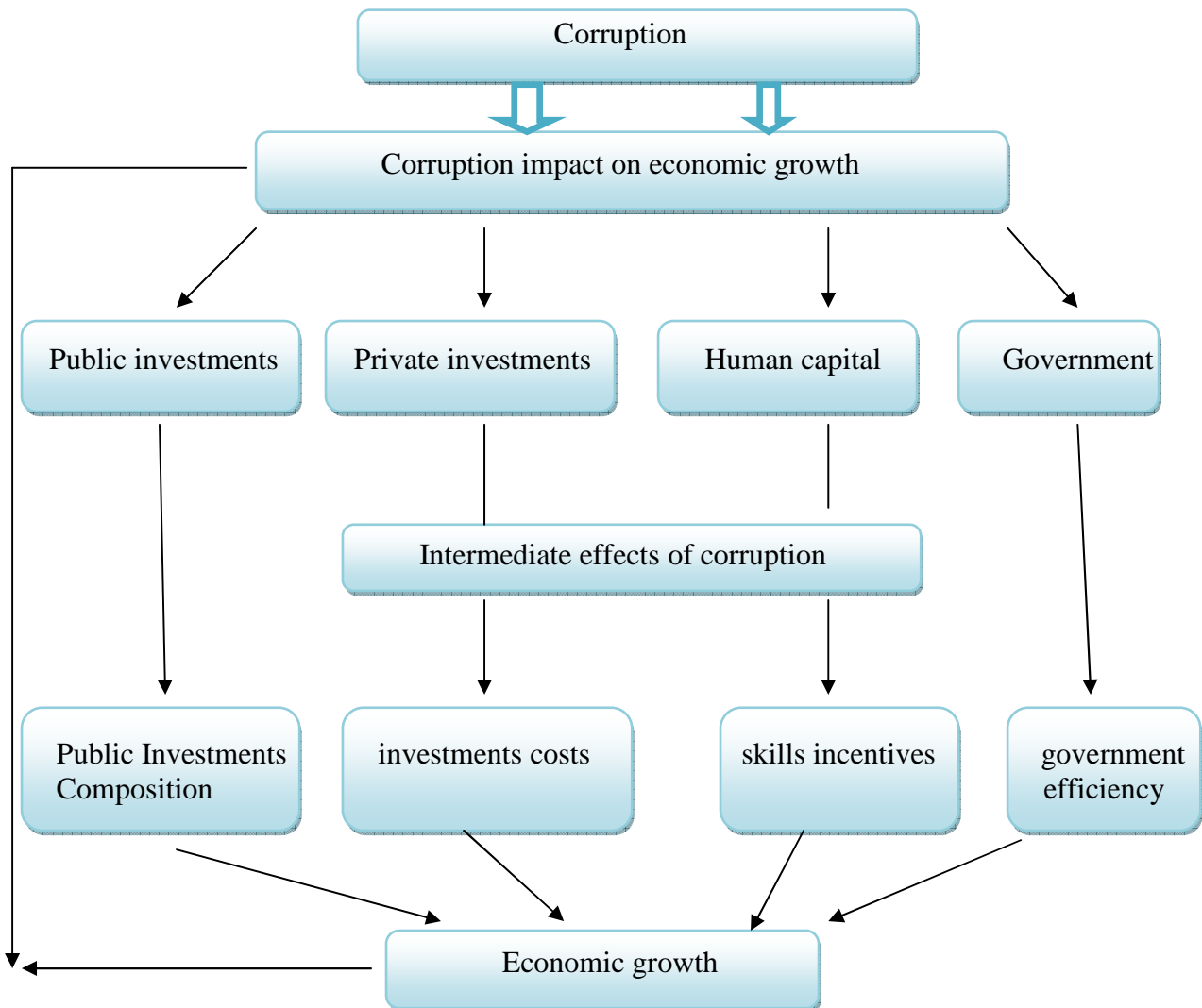
Obviously, corruption reduces the returns of productive activities. If the returns to production fall faster than the returns to corruption and rent-seeking

activities, resources will flow from productive activities to corruption activities over time. This will result in a lower stock of producible inputs like human capital in corrupted countries (Mo, 2000, P.73).

III.3.2.2.4. The Impact of Corruption on Government

Government may misuse their entrusted powers for private gains rather than societal gains. By doing this, government will lose the trust of the people. This can in turn produce an increasingly harder political and social environment in the country and it becomes increasingly difficult to develop into a less corrupted society. Corruption may also cause inequality since it produces a more unequal societal income and wealth distribution as well as sabotaging programs designed to help the poor. (Yun, 2015, P.8)

Figure (III.1) The Impact of Corruption on Economic Growth



Source: Adela SHERA et al, Corruption impact on Economic Growth: An empirical analysis, Department of Economics, Faculty of Economics, University of Tirana, 2014, p63

III.4. Conclusion of the Chapter

Corruption is a debatable issue that happens worldwide regardless the countries are rich or poor, dictatorships or democracies, socialist or capitalists. The findings of previous studies have indicated that the relationship between corruption and economic growth are ambiguous. Mauro (1995), Knack and Keefer (1995) and Brempong (2002) found that corruption is negatively related to economic growth. Brunetti, Kisunko and Weder (1998) failed to identify significant relationship between corruption and economic growth. Heckelman and Powell (2010) even found that corruption is able to promote the economic growth in countries with low levels of freedom. However, none of the country is able to immune from its consequences to be mentioned.

Chapter Four

Data and Methodology

IV.1. Introduction

IV.2. Data of the Study

IV.2.1. Source of the Data

IV.2.2. Population and Sample

IV.2.3. The Variables of the Study

IV.2.3.1. The Dependent Variable

IV.2.3.2. The Independent Variables

IV.3. The Methodology of the Study

IV.3.1. The Model

IV.3.2. The Hypotheses

IV.4. Conclusion of the Chapter

IV.1. Introduction

This chapter includes the summary of data and the model used in this study, in order to investigate the impact of corruption on economic growth. This chapter is divided into two parts. The first one contains data of the study such as: the population and sample, the sources of the data and the variables. The second one cover the methodology used to provide the convenient test for the hypothesis. Finally, constrict the model used in the study.

IV.2. Data of the Study

IV.2.1. Sources of the Data

The study relies on two main sources of data: the World Bank and Transparency International. Additionally secondary data collected from various reliable sources such as: books and articles, and network (Internet) publications.

IV.2.2. Population and Sample

The current study takes Algeria as the sample of the study, covering the period 1990 to 2015, the Data listed on what mentioned in the sources of the Data.

IV.3. Variables of the Study

The purpose of this study is to examine the impact of corruption on economic growth. To achieve this objective the study attempts to identify the

factors that are significantly influencing the economic growth. Five variables have been chosen as factors to explain the impact of corruption on economic growth. This has mainly been done in line with previous studies such as YUN et al (2015), Rana (2012), Bounoua and Matallah (2014).

Table(IV.1): Summary of Variables, Abbreviation of Data and Source of Data

	Abbreviation	Variable	Source
Economic Growth	GDPPC	GDP per capita	World Bank
Corruption Index	EFI	Economic Freedom Index (EFI)	Economic freedom index
Investment	FDI	Foreign direct investment, net inflows (current USD)	World Bank
population	PO	Population Growth (%)	World Bank
Petroleum	OP	Oil Prices (current USD)	OPEC

1. The Dependent Variable

GDP Per Capita

The dependent variable used in this study is GDP per capita expressed in current USD. This variable was gathered from the World Development Indicators.

2. Independent Variables

2.1. Economic Freedom Index (EFI)

A ranking of countries or states based on the number and intensity of government regulations on wealth-creating activity. Metrics that an economic freedom index evaluates include international trade restrictions, government spending relative to GDP, occupational licensing requirements, private property rights, minimum wage laws and other government-controlled factors that affect people's ability to earn a living and keep what they earn. Such indexes are usually produced by economic think tanks.

2.2. Foreign Direct Investment

Net inflow of foreign direct investment expressed in proportion of GDP was extracted from World Development Indicator. Net inflow of foreign direct investment is derived from new investment inflows in acquiring at least ten percent management interest of any business entities in a country deduct disinvestment. It is the total of equity capital, earnings on reinvestment, long term and short term capital in the balance of payment.

2.3. Population Growth

Population variable extracted from World Development Indicator is the rates of global population (annual %).

2.4. Petroleum

These variables extracted from OPEC, expression of annual prices of oil by current USB.

IV.3. The Methodology

In order to fulfill the study objectives, the study employs Multiple Linear regression. The Multiple linear regressions (MLR) are a statistical technique that uses several explanatory variables (independent variables) to predict the outcome of a response variable (dependent variable). The goal of multiple linear regressions (MLR) is to model the relationship between the explanatory and response variables.

IV.3.1. The Model

Following the study of CHUA HUI YUN et al (1986), the six variables are added together in a linear regression model to reach the study objectives.

The model is presented as follows:

Growth = F (Corruption, Investment, Trade Openness, Government Spending, Human Capital)

$GDPPC_t = F (EFIt, FDI_t, TRADE_t, GOV_t, HC_t)$

Log-linear model is use as it can provide more efficient results.

$$\text{LogGDPPC} = \beta_0 + \beta_1 \text{LogEFI}_t + \beta_2 \text{PG}_t + \beta_3 \text{LogFDI}_t + \beta_4 \text{LogOP}_t + \text{Err}_t$$

4.3.3. The Hypotheses

To accomplish the aim of the study, the following hypotheses are

Formulated:

(H₀) There is no statistical significant relationship between Corruption and Economic Growth.

(H₁) There is a statistical significant relationship between Corruption and Economic Growth.

IV.4. Conclusion of the Chapter

This chapter has illustrated the research method used and the methodology approved to present a convincing answer for all the study questions. The sample, data collection and the procedures that are employed to examine the impact of Corruption on Economic Growth were also discussed. The construction of the research model: Economic Growth and all the independent variables were also presented; the formulation of the hypotheses was surveyed. The next chapter shows the results of estimation and analysis.

Chapter Five

Empirical Results

V.1. Introduction

V.2. Statistical Analysis

V.2.1. Descriptive Statistics

V.2.2. Multicoliniarity Test

V.2.3. Empirical Results

V.2.4.1. (OLS) Regression

V.3. Conclusion of the Chapter

V.1. Introduction

This chapter aimed to: first, to see if the independent variables are influence to each other to effect on economic growth. Second, to see how corruption affect on economic growth, and how much it's bad for the growth of Algeria in each period. Third, to see if there is positive effect of corruption and what are conditions to be positive on the growth of the country. This chapter contain: statistical analyzes which conclude descriptive statistics, and multicollinearity test, and Pearson correlation between the explanatory variables, also the empirical results. Finally, a summary of the chapter.

V.2. Statistical Analysis

This section contains four sub-sections, the first one shows the descriptive statistics, the second provides the multicollinearity test between the independent variables, the third present the correlation between the independent variables, the last one provides the empirical results.

V.2.1. Descriptive statistics

Taking Algeria as a sample, the descriptive statistics listed through the period 1990-2015, the data contains of 300 annual observations about Algeria during the above-mentioned period.

The results of the table (5.1) down showed that the average of GDPPC achieved the highest value among the variables of (3,410), and standard

deviation of (0,206), with a minimum value of (3,159), and a maximum value of (3,747) which are the highest values. While the data observation showed that the smallest value of the mean was the FDI with a negative number is (-0,342) which has the highest value for the standard deviation with (0,521). In addition, FDI has the lowest values of (0,301) as the maximum value with (-1,523) as the minimum value.

The lowest value for standard deviation was the EFI of (0,019), with (1,781) as a mean, and ranging from (1,744) to (1,806) minimum and maximum values respectively. Another note showed that PG and OP have no deviation where the average score of (0,230) and (1,553) respectively, (0,092) and (0,316) standard deviation, and the minimum and upper values of (0,099) to (0,408) and (1,089) to (2,039) in that order.

These deviations cannot be taken randomly, while they can be interpreted. In the beginning, the high value of average GDP can be explained by the increase in economic growth, especially in the recent years from 2009 to 2015.

A deviation in FDI was also observed due to the significant decline in foreign direct investment in previous years from 1990 to 2000, also recorded a deviation in EFI which refer to the rise in classification of Algeria in previous years and then gradually decrease.

Table (V.1): Descriptive Statistics of the Variables of the Study

Variables	Obs	Mean	Std.Dev	Min	Max
GDPPC	26	3.411	0.207	3.16	3.747
EFI	26	1.781	0.0197	1.74	1.806
PG	26	0.23	0.092	0.099	0.408
FDI	26	-0.342	0.521	-1.523	0.301
OP	26	1.552	0.316	1.089	2.039

Note: **GDPPC:** Gross Domestic Product, **EFI:** Economic Freedom Index, **PG:** Population Growth, **FDI:** Foreign Direct Investment, **OP:** Oil Prices

Source: prepared by the research using Stata12

V.2.2. Multicoliniarity Test

This test aims to examine whether the regression model found a correlation between the independent variables. The VIF should not exceed 10 and the tolerance should not be less than 0,1. Then it can be declared multiple linear regression model is free from assumptions multicollinearity.

Through the results shown in the table (5.2) below, we found that the average of the variables of the model is (4,26). The Variance Inflation Factor (VIF) of the variables ranged between the highest value of (5,71) and the lowest value of (3,02). While the values of tolerance ranged between (0,175) and (0,331) which is more than (0,1) and reached an average of (0,247). Thus, the model does not suffer the Multicoliniarity problem.

Table (V.2): Variance Inflation Factor (VIF) and Tolerance (1/VIF) for the Independent Variables

Variables	VIF	1/VIF
OP	5.71	0.175
EFI	4.16	0.24
FDI	4.16	0.24
PG	3.02	0.33
Mean VIF	4.26	

Source: prepared by the research using Stata12

V.2.3. Pearson correlation between the independent variables

The table (5.3) shows the Pearson correlation between the independent variables:

As mentioned down, table (5.3) describes in details the correlation between all the independent variables employed in this study. Generally, the independent variables should not correlate between each other, or at least the correlation should be low. From here, the correlation between variables is low.

The results of this study show a correlation between economic freedom index (EFI) and percentage changes in population growth (PG), also economic freedom index has negative significant correlation with foreign direct investment (FDI) and changes of oil prices (OP). For population growth (PG) it has negative significant correlation with both foreign direct investment (FDI) and the changes of oil prices (OP). Finally, foreign direct investment (FDI) has positive significant correlation with the changes of oil prices (OP).

Table (V.3): Pearson Correlation between the explanatory variables

	EFI	PG	FDI	OP
EFI	1.0000			
PG	0.3877**	1.0000		
FDI	-0.7062***	-0.5792***	1.0000	
OP	-0.7905***	-0.0305	0.6668***	1.0000

***correlation is significant from zero to 1% **correlation is significant from zero to 5%

*correlation is significant from zero to 10%

Source: prepared by the research using Stata12

V.2.4. Empirical Results

According to the output reported in table (5.4), the economic freedom index (EFI) has the highest coefficient with a value of (-2,481), which means that it has a statistically significant negative effect on gross domestic product per capita, that the reduction of economic freedom index (EFI) rates drives to higher growth rates.

In addition, there is a statistically significant positive effect of population growth (PO) on gross domestic product per capita (GDPPC) with a value of (0,778), as Doa (2012, P.8) mentioned that population growth may have had a positive impact on per capita GDP growth in the long run through improvement of productivity through the contribution of new ideas and the learning-by-doing resulting from increased production volume.

Also foreign direct investment (FDI) has statistically significant positive effect on gross domestic product per capita (GDPPC) with a value of (0,108), while this value is not big that shows that foreign direct investment has weak

effect in local economy, because foreign direct investment depends on the human capital available in the host economy Borensztein et al (1998). Also the positive weak effect of (FDI) is on long-run which mean that if the study was in short-term the effect could be negative on economic growth.

Oil prices (OP) has also statistically significant positive effect on gross domestic product per capita (GDPPC) with a value of (0,386), it is really positive that oil returns are very useful and increase significantly on economic growth rates specially when the oil was in highest price in 2011, 2012, 2013, however, (0.386) seemed low according to a country counts on oil by 99% which understand that the decline in the level of oil prices in recent years effects significantly on economic growth rates. As well, the positive effect in this results on table (5.4) shows that Algeria is just still resistant in the face of the crisis, cause as many countries who counting on oil by large percent affected negatively on economic growth with the time, and that what we see today in this current crisis.

According to the table (5.4), Breusch-Pagan has been done which leads to find out heteroskedasticity problem in the model. This test counts on the employment of Ordinary Least Square (OLS) residuals regression under the null Hypothesis which means the variance of the residuals is not homogeneous or constant, unlike the alternative hypothesis Lefilef (2016, P.89). the findings of breusch-Pagan test shows that Chi-square has K degree of freedom in (1) in

values of (5.37), and P-value in (0.0205) which is below an appropriate threshold ($p < 0.05$), and that mean the null hypothesis is rejected, where for variance of the residuals is not homogenous. In the end, in this model the R-squared value is (0.9377) which mean that 93.77% of changes that occur on the dependent variable (GDPPC) are caused by the independent variables.

Table (V.4): The pooled Estimation Result of Corruption Model

LogGDPPD _t = $\beta_0 + \beta_1 \text{LogEFI}_t + \beta_2 \text{LogPG}_t + \beta_3 \text{LogFDI}_t + \beta_3 \text{LogOP}_t + \text{Err}_t$		
variables	Coefficient	T-test
EFI	-2.481**	-2.12
PG	0.778***	3.67
FDI	0.108***	2.46
OP	0.386***	4.53
Constant	7.088***	3.29
R-squared	0.9377	
Ajusted-R ²	0.9259	
F-Ratio	Value	Prob
	79.07***	0.00
B/P test	Chi2 (1) = 5.37 Prob > Chi2 = 0.0205	

¥: Data Analysis. *** Significant different from zero at the 1% level. ** Significant different from zero at the 5% level. * Significant different from zero at the 10% level.

Source: prepared by the research using Stata12

V.3. Conclusion of the Chapter

In this chapter, we examined the possibility of interaction of economic growth with changes in independent variables. Through the results we concluded that the variables identified are statistically significant and therefore affect economic growth. In addition, all variables studied positively affect the fixed variable except corruption, it affects negatively and significantly. These results proved the validity of the previously mentioned assumptions, and support the view that corruption sands the wheels of economic growth.

Chapter Six

Conclusion

VI.1. Introduction

VI.2. Findings and Implications

VI.3. Recommendations for Further Research

VI.1. Introduction

The objective of this study is to investigate the effect of corruption on economic growth in Algeria during the period 1990-2015. This study aimed to achieve tow main goals. Firstly, to examine the effect of corruption on economic growth in Algeria over the period 1990-2015, and determine the extent to which this phenomenon influence the growth of the state. Secondly, to find out the main macroeconomic variables that explain variations in gross domestic product per capita in Algeria.

In this chapter, the study discusses the most important results proved in chapter five; also the study presents recommendations for further research.

VI.2. Findings and Implications

In the light of the outcomes of the study analysis, the results can be summarized as follows:

1. The pooled (OLS) test showed that, the (EFI) has the highest coefficient statistically significantly and negatively affect on the economic growth, which mean corruption has a big effect of decreasing the growth of the state.
2. Also, there is a statistically significant relationship between foreign direct investment (FDI) and economic growth.

3. Population growth (PO) has positive statistic significant relationship with economic growth, through the improvement of productivity through the contribution of new ideas and labor.
4. Oil prices (OP) has significant statistic positive relationship with economic growth, even it seemed low according to a state counts on oil by 96%, which mean that the current crisis of decline in oil prices is the reason of the low effect on economic growth.

In general, the model can explain the variation in economic growth in Algeria, (R-square =0.9377), this means that 93.77% of the variation in economic growth is explained by the significant independent variables. Therefore, the study summarizes the weak of economic growth in the face of corruption in Algeria over the period covered. Furthermore, no one can count on this model to predict the value of corruption in this state, because it's more complicated to see how much the country is corrupted especially when corruption classified with top-corruption.

VI.3. Recommendations for Further Research

According to the results found, the study recommends the following:

1. This study found that corruption is fully negative on economic growth in Algeria; therefore, it's recommends the country must establish strict regulations and laws to monitor in all sectors especially the public sectors.

2. The state must end the bureaucratic system and contribute to establish a system capable of avoiding corruption and employing officials according to their competence.
3. The state find a away to avoid the almost total reliance on oil, and go to diversification in product, although it's late for this recommendation because of the current crisis, but it still possible to avoid this latter.
4. The state should pay a great attention to foreign direct investment if she wants to reduce corruption, because high level corruption means less foreign investment, which mean decrease on the growth of the country.

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