

**EXAMINING THE INFLUENCE OF TAX FAIRNESS ON TAX  
COMPLIANCE IN LIBYA**

**By:**



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## ABSTRACT

The purpose of this study is to investigate the influence of tax fairness on tax compliance in Libya. Mansour, Mitra, Sdrilevich and Jewell (2015) mentioned that the tax system in Libya is not fair and there is a need to design a tax system based on the principle of fairness. Therefore, this study puts emphasis on determining the impact of tax fairness dimension, such as general fairness, tax rate, exchange with government, attitude towards taxes of the wealthy and self-interest on tax compliance in Libya. This study will add to the body of knowledge related to tax compliance behaviour of taxpayers in Libya, especially since very little is known about this in the context of Libya. This study can help policy-makers to device a fair tax system that can help taxpayers as well as tax collection agency to make the system more efficient. The sample of the study comprises of taxpayers in Tripoli city. Data was analysed using SPSS. The findings of the present study show a significant relationship between tax fairness dimensions and tax compliance. This finding means that fairness of the tax system can enhance the level of tax compliance by a significant level. The government should hence device a fairer tax system to increase the level of tax compliance.

**Keyword:** tax fairness, tax compliance, Libya.

## **ABSTRACT**

Tujuan kajian ini adalah untuk menyiasat pengaruh keadilan cukai terhadap pematuhan cukai di Libya. Mansour, Mitra, Sdrlevich dan Jewell (2015) menyebut bahawa sistem cukai di Libya tidak adil dan terdapat keperluan untuk merekabentuk satu sistem cukai yang berdasarkan kepada prinsip keadilan. Oleh itu, kajian ini memberikan penekanan kepada menentukan kesan cukai dimensi keadilan cukai seperti keadilan umum, kadar cukai, pertukaran dengan kerajaan, sikap terhadap cukai golongan berpendapatan tinggi dan kepentingan peribadi yang mempengaruhi pematuhan cukai di Libya. Kajian ini menambah ilmu berkaitan dengan tingkah laku pematuhan pembayar cukai di Libya, terutamanya kerana sangat sedikit yang diketahui tentang perkara ini dalam konteks Negara Libya. Kajian ini boleh membantu penggubal dasar untuk merekabentuk sistem cukai yang adil yang boleh membantu pembayar cukai serta agensi pungutan cukai untuk membuat sistem yang lebih cekap. Sampel kajian ini terdiri daripada pembayar cukai di bandar Tripoli. Dapatan kajian ini ada menunjukkan terdapat hubungan yang signifikan di antara dimensi keadilan cukai dan pematuhan cukai. Dapatan ini bermaksud bahawa keadilan sistem cukai boleh meningkatkan tahap pematuhan cukai dengan signifikan, Justeru, kerajaan harus merekabentuk sistem cukai yang lebih adil dan saksama untuk meningkatkan tahap pematuhan cukai.

Kata Kunci : keadilan cukai, pematuhan cukai, Libya.

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## TABLE OF CONTENTS

Title	Page
CHAPTER ONE INTRODUCTION	1
1.1 Background of the Study	1
1.2 Problem Statement	4
1.3 Research Questions	7
1.4 Research Objectives	8
1.5 Significance of the Study	8
1.5.1 Theoretical Significance	8
1.5.2 Practical Significance	9
1.6 Scope of the Study	10
1.7 Organization of the study	11
1.8 Chapter summary	11
CHAPTER TWO LITERATURE REVIEW	12
2.1 Introduction	12
2.2 Review of Literature	12
2.2.1 Tax Compliance	12
2.2.2 Tax Fairness	14
2.2.2.1 General Fairness and Tax Compliance	15
2.2.2 Tax Rate and Tax Compliance	18
2.2.3 Exchange with Government and Tax Compliance	19
2.2.4 Attitude towards Taxes of the Wealthy and Tax Compliance	20
2.2.5 Self-Interest and Tax Compliance	22
CHAPTER THREE RESEARCH METHODOLOGY	23
3.1 Introduction	23
3.2 Research Framework	23

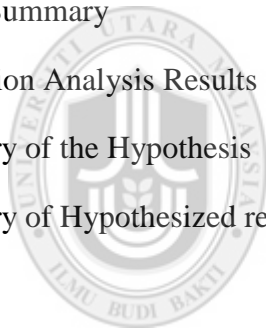
3.3 Hypotheses Development	24
3.3.1 Dependent Variable	24
3.3.2. Tax Fairness	25
3.3.2.1 General Fairness	25
3.3.2.2 Tax Rate	26
3.3.2.3 Exchange with Government	26
3.3.2.4 Attitude Towards Taxes of the Wealthy	27
3.3.2.5 Self-Interest	28
3.4 Summary of Hypotheses	29
3.5 Research Design	29
3.6 A survey Method	30
3.6.1 First Section: Profile of Respondents	30
3.6.2 Second Section:	30
3.6.2.1 Tax Fairness Dimensions	30
3.6.2.2 Tax Compliance	30
3.7 Source of Data	31
3.8 Population and Sample Size	31
3.9 Sampling Technique	31
3.10 Data Collection Method	31
3.11 Variables Measurement	32
3.12 Reliability and Validity	37
3.13 Method of Data Analysis	38
3.14 Chapter Summary	38
CHAPTER FOUR RESULTS	39
4.1 Introduction	39
4.2 Response Rate	39

4.3 Respondents' Profile	40
4.4 Reliability Test	41
4.5 Descriptive Statistics	42
4.6 Correlation Analysis	42
4.7 Regression Analysis	45
4.8 Chapter Summary	48
CHAPTER FIVE DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS	50
5.1 Introduction	50
5.2 Discussion of Results	50
5.2.1 General Fairness and Tax Compliance	50
5.2.2 Tax Rate and Tax Compliance	51
5.2.2 Exchange with Government and Tax Compliance	53
5.2.4 Attitude towards Taxes of the Wealthy and Tax Compliance	54
5.2.5 Self-Interest and Tax Compliance	55
5.3 Summary and Conclusion	55
5.4 Implication of the Study	56
5.4.1 Theoretical Implications	56
5.4.2 Practical/Policy Implications	57
5.5 Limitations and Recommendations for Future Researchers	57
5.5.1 Limitations	58
5.5.2 Recommendations for Future Researchers	58
REFERENCES	59
APPENDIX	67



## **List of Tables**

1.2 Tax revenue collected during years 2009 – 2014	5
3.1 The independent variables and the hypotheses	28
3.2_Demographic Profile of Respondents	32
3.3 Independent variables	33
3.4 Dependent variable - tax compliance	35
4.1 Response Rate	38
4.2 Respondents' Profile	39
4.3 Reliability Test of the Study	41
4.4 Descriptive Statistics	42
4.5 Correlation analysis	43
4.6 Model Summary	45
4.7 Regression Analysis Results	46
4.8 Summary of the Hypothesis	47
4.9 Summary of Hypothesized relationships	49



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## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background of the Study**

Tax compliance can be described as the level to which taxpayers obey or fail to obey the rules of taxation of their country. This is an admitted fact that the aim of an effective administration of tax is to enhance the voluntary compliance of tax with the use of all possible approaches that may include penalties as well (Sakarnor, Marziana and Norkhazimah, 2012).

The attitude of the taxpayers on tax compliance is affected by several factors, leading to an effect on the behaviour of the taxpayers. The factors affecting compliance or non-compliance of taxation rules and regulations vary from country to country and individual to individual as well (Kirchler, 2007). These factors include, but are not limited to, perception of the taxpayers about the Revenue Authority and tax system (Atawodi, and Ojeka, 2012); attitudes of peers and subjective norms, understanding of taxpayers regarding taxation laws and system of taxation (Keen, M., 2014); reward system for motivation (Feld, Frey and Targler, 2006); penalties as punishment for non-compliance (Martínez-Vázquez, and Moreno-Dodson, 2012); compliance cost (Laffer, A. B, 2014); efforts to enforce tax laws, audit, detection possibility, cultural differences and perceived behavioural control (Benk, Budak, and Cakmak, 2012); and morality and ethical values of the tax collectors and taxpayers, tax system equity and some demographic determinants, such as age, sex, income and level of education (Murphy, 2004).

Tax compliance is a global phenomenon, hassling both developed and developing countries, though the level of noncompliance on average is much more in developing and

transition countries than developed countries (Kim, 2008). Moreover, less than 5% of the population in developing countries pay personal income tax compared to about 50% in developed nations (International Monetary Fund, 2011). Furthermore, only about 15% of taxpayers' income in developing countries is taxable compared to about 57% in developed countries (International Monetary Fund, 2011).

Tax non-compliance is a subject of concern for all tax authorities and government agencies, and this remains a significant issue that needs to be addressed. The major challenge faced by all tax authorities, regardless of place and time, is the compliance with the rules and regulations of the taxation system by the taxpayers.

In order to understand taxpayers' behaviour and willingness to comply with tax requirements, there is a need to understand taxpayers and take a closer look at tax payment from the point of view of taxpayers (Hadler and Hewitt, 2009). The tax compliance behaviour in the longer time span is affected by the fiscal psychology and its non-economic variables. According to (Berhane, 2011), tax fairness is considered most vital variable in the non-economic prospect. Previously there was much work done, by researching on the developed countries (Reuter, 2012). Yet in developing nations like Libya and revenue authorities all over the world have been facing serious issues regarding tax fairness and non-compliance with tax laws.

The fiscal policy in Libya has not hitherto depended in general on the use of taxes as a financing tool for several reasons, such as the abundance of oil resources, which meant that increases in the size of public spending have been financed through monetary issuance (new currency notes). In the meantime, because the Libyan general budget has mainly depended on one resource, which is oil revenue, this has led to instability in the

Libyan economy and poor distribution of income and wealth among the members of the society. Therefore, the Libyan government's effort to diversify its revenue sources since the mid-1980s has included the development of the tax system (Abdalaziz, 2012).

Feld and Frey, (2007) claimed that the tendency to avoid the payment of tax by the taxpayers increases if they think that the system of taxation is unfair. This reveals the importance of fairness of tax system in a country as this is a significant factor affecting the tax compliance behaviour of taxpayers (Brainyyah and Rusydi, 2013).

Tax fairness has induced much interest for wide-ranging empirical research as researchers accentuated the importance of taxpayers' perceptions of fairness on compliance level. A fair tax can be described as one where the greater burden of the tax is borne by individuals who are more financially well-off and capable of paying the tax (Saidi, and Prasad, 2014). Since taxes affect the tax bearer, it is important to understand how taxpayers will respond to adjustments in fiscal policies. The perceptions of taxpayers' on the burdens and benefits associated with tax decisions allow for more effective functioning of the tax system and can help increase tax compliance. Therefore, understanding behavioural or cultural issues is essential to ensure more content residents (Saad, M, 2011).

Where the issue of tax fairness has received great attention around the world. Tax fairness is essential because tax systems should be perceived as fair in order to obtain a high degree of voluntary tax compliance. In other words, a good understanding of taxpayers' fairness perceptions is important for the tax authority to improve the tax system and consequently encourage taxpayers' compliance (Natrah Saad, 2010).

There is significant room to improve the fairness of the tax system. Personal income tax in the Middle East region lacks progressivity due to low top tier rates that often apply relatively to high income level and exclusion of non-wage earnings (Abdalaziz, 2012). The tax administration is inefficient and exercises insignificant discretion in many countries of the Middle East, including Libya, which leads to unfair treatment of citizens and businesses. Personal Income taxes are rare and where present, only apply to foreigners. The need to develop a tax system that supports the diversification of these economies provides an opportunity to design it with an emphasis on fairness (Mansour, Mitra, Sdravovich, and Jewell, 2015).

Several studies from different countries around the globe have examined various factors that have influence on tax compliance. The tax fairness dimensions, such as general fairness, tax rate, exchange with government, attitude towards taxes of the wealthy and self-interest, have not been studied in Libya as far as the researcher's knowledge is concerned. Mansour, Mitra, Sdravovich and Jewell, (2015) mentioned that the tax system in Libya is not fair and there is need to design a tax system based on the principle of fairness. Therefore, this study puts emphasis on determining the impact of tax fairness dimensions, such as general fairness, tax rate, exchange with government, attitude towards taxes of the wealthy and self-interest that influence tax compliance in Libya.

## **1.2 Problem Statement**

Taxation is a very important economic tool for the government to regulate the economy in Libya (Mohamed, 2013). Tax is an effective tool to stimulate growth and income distribution and to accomplish economic stability. In addition, it is an important source of government revenue.

In the field of economic psychology, tax compliance has developed as a crucial topic of research. The topic has been addressed from different perspectives, focusing on various aspects of the behaviour of taxpayers. The measurement of attitude, the dominant social norms and the lay theories have been explored (Kirchler, 2007). Tax revenue in Libya has been decreasing over the years. Over the last five years, it has decreased from 2.243 billion Libyan Dinar (LD) to 0.660 billion LD from year 2009 to 2014. The Libyan Revenue Department generated tax revenue of 2.243 billion LD in year 2009, which decreased in year 2010 to 1.94 billion LD. It decreased in 2011 from 1.19 billion LD to 0.43 million LD and increased slightly in year 2012, reaching 0.687 billion LD. In year 2013, it increased slightly to 0.838 billion LD and decreased again in year 2014 to 0.661 billion LD. If we compare it with the tax revenue in 2009 to assess the upward or downward trend in tax revenue, the estimation shows that tax revenue has a decreasing trend for the period. For instance, the tax revenue of 2010 decreased by 13.44% compared to 2009. It further decreased by 80.25% in 2011. This trend shows that the tax revenue has been decreasing, which in turn appears as a problem for the government. This shows there are problems in the tax system in Libya that significantly reduced the amount of tax revenue for the last five years, Mansour, Mitra, Sdrlevich and Jewell, (2015) stated that the tax system in Libya is not fair and probably it is one of the reasons which lead to taxpayers non-compliance, thus decreasing the tax revenue. The details are shown in Table 1.1.

**Table 1.1 Tax revenue collected during years 2009 – 2014**

Year	Tax Revenue (Libyan Dinar)	Change %
2009	2,243,147,432	-
2010	1,941,633,942	13.44%
2011	443,083,016	80.25%
2012	687,676,487	69.60%
2013	838,837,217	62.60%
2014	660,869,213	70.54%

**Source:** Libyan Audit Bureau (2014)

Empirical research has revealed that the increased income and audit rates are the result of tax compliance and it leads to a decrease in the rate of tax non-compliance (Barbuta-Misu, 2011). Compliance can also be increased in case of perceived benefits by the taxpayer from a public good funded by the tax payments; this may significantly affect the tax compliance behaviour of individuals (Fenochietto and Pessino, 2013). Therefore, there is a need for additional taxation policies, such as fairness and efficiency, more than the usual standard implementation of tax rules and regulations by the government for achieving the target level of tax compliance. The fact is that some of those traditional instruments may be ineffective now for tax compliance (Fenochietto and Pessino, 2013). Briefly stating, the government should execute a wide variety of approaches for the promotion of tax compliance (Fenochietto and Pessino, 2013).

Many studies in the existing body of literature on the subject of taxation have shown that a lot of effort has been undertaken to investigate taxpayers' compliance. But tax

compliance factors vary from study to study. Nicoleta, (2011) categorized tax compliance factors as economic and non-economic factors. Tax fairness is one of the non-economic factors. Jackson and Milliron, (1986) also used tax fairness perception as one of the non-economic determinants of tax compliance behaviour of taxpayers. Atawodi, O.W. and Ojeka, (2012), claimed that taxpayers have a tendency to avoid tax payment if they think that the system of taxation is unfair. This reveals the significance of tax fairness as one of the determinants of compliance behaviour of taxpayers.

Oil producing countries have contributed a lot towards growth of the economies around the globe. Hence, it is imperative to study the viewpoints of these countries in the context of international economic problems, such as tax non-compliance. Libya, as one of the oil producing countries, is categorized as one of the least developing countries suffering from huge corruption problems, including administrative and financial corruption and tax non-compliance behaviour of taxpayers (Transparency International's Quarterly Newsletter, 2014). Majority of the studies on tax compliance behaviour have been conducted in the developed countries. In the oil producing region, this area of study has been neglected, particularly in the context of tax fairness.

Under the conditions described above, this study analyses the tax fairness factors, such as general fairness, tax rate, exchange with government, attitude towards taxes of the wealthy and self-interest that influence tax compliance in Libya.

### **1.3 Research Questions**

The current study aims to determine the relationship between tax fairness dimensions and tax compliance in Libya by answering the following research questions:



- 1- What is the relationship between general fairness and tax compliance?
- 2- What is the relationship between tax rate and tax compliance?
- 3- What is the relationship between exchange with government and tax compliance?
- 4- What is the relationship between attitude towards taxes of the wealthy and tax compliance?
- 5- What is the relationship between self-interest and tax compliance?

#### **1.4 Research Objectives**

The objective of the current study is to examine the relationship between five dimensions of tax fairness and tax compliance. The sub-objectives are as stated below:

- 1- To examine the relationship between general fairness and tax compliance.
- 2- To examine the relationship between tax rate and tax compliance.
- 3- To examine the relationship between exchange with government and tax compliance.
- 4- To examine the relationship between attitude towards taxes of the wealthy and tax compliance.
- 5- To examine the relationship between self-interest and tax compliance.

#### **1.5 Significance of the Study**

The significance of the study is discussed under two categories. These include both the theoretical significance and practical significance.

##### **1.5.1 Theoretical Significance**

This study adds to the body of knowledge related to tax compliance behaviour of the taxpayers in Libya. This is specifically important since very little is known about this area of study related to the economy of Libya (Abdalaziz, 2012).

For example Mas'ud, Aliyu, Gambo, Al-Qudah and Al Sharari, (2014) studied the effect of tax rate on tax compliance in Africa and not Libya. Ali, Cecil and Knoblett, (2001) studied the effects of tax rates and enforcement policies on taxpayers' compliance; while Alabede, Ariffin and Idris, (2011) studied the determinants of tax compliance behaviour in Nigeria. These studies, however, do not focus on the relationship between tax fairness dimensions on tax compliance.

The important tax fairness dimensions used in this study are general fairness, tax rate, exchange with government, attitude towards taxes of the wealthy and self-interest. These dimensions are presented as central dimensions in this study because only a few studies have been conducted in developing countries, for example in Nigeria (Mustapha, 2010; Alabede, Ariffin and Idris, 2011); Jordan (Abdulahdi K.M., Obeidat M., and Abdullah Al-Momani, 2008); and Indonesia (Brainyyah and Rusydi, 2013). Therefore, the current study contributes to tax compliance literature in the context of Libya, as very little has been documented in Libya as far as the researcher's knowledge is concerned. Finally, this study can be beneficial to researchers, standard- setters and students in the taxation and psychology fields. This research provides an important contribution to the body of knowledge for Libya, in particular, and other countries, in general, specifically oil producing countries. These tax fairness dimensions can help policy-makers device a fairer tax system that can help taxpayers as well tax collection agencies to make this system better and more efficient.

### **1.5.2 Practical Significance**

This study is concerned with the dimensions of tax fairness that affect tax compliance in Libya. The behaviour of the taxpayers is an important topic to be assessed, especially tax

compliance behaviour, in order to increase the tax collection and revenue of the Libyan government. When tax non-compliance is addressed, this may lead to an increase in tax revenue and consequently, the provision of social amenities and other infrastructure for the welfare of citizens of Libya.

One of the keys to effectively decrease tax non-compliance behaviour is through the assessment of tax fairness dimensions, such as general fairness, tax rate, exchange with government, attitude towards taxes of the wealthy and self-interest that influence tax compliance in Libya. The outcome of studying determinant factors can have significant impact on taxpayers' attitude towards tax compliance. The findings of the study can assist the tax authority in setting new and adjusting existing policies and procedures on tax collection to make the tax policies fairer; this will lead to increased compliance behaviour. This study therefore takes into consideration the factors that induce all levels of taxpayers to evade taxes.

### **1.6 Scope of the Study**

This study only focuses on tax fairness dimensions, such as general fairness, tax rate, exchange with government, attitude towards taxes of the wealthy and self-interest that influence tax compliance behaviour of taxpayers in Libya. The respondents, comprising individual taxpayers, are an important source of revenue for the Libyan government. Due to time constraints, this study's respondents comprise a sample of 403 taxpayers to represent the population of 16,543 taxpayers in Tripoli city. The reason is that Tripoli is a capital city that has a major portion of taxpayers from all over the country. This region as per population is important and can be representative of the whole country.

## **1.7 Organization of the study**

The thesis comprises of basically four significant parts or chapters. After this chapter, the second part is chapter 2 the literature review, explaining in detail the determinants of tax compliance. Followed by next chapter 3, which include the research methods, research design with the sampling techniques as per the population, size of the sample. Also analyses the sources of data, the process of data collection and instruments used for this and critical analysis of the techniques to answer the proposed research questions of chapter 1. Chapter 4 elaborate the results from the analysis of data from the respondents. In the last part, Chapter 5 explains the results and explains significance of the study for the policymakers and recommendations for future researchers.

## **1.8 Chapter summary**

Chapter one starts by offering the general setting of the study and a discussion of the variables, i.e., general fairness, tax rate, exchange with government, attitude towards taxes of the wealthy and self-interest that influence tax compliance behaviour of taxpayers in Libya. This chapter contains the problem statement, research objectives, research questions, significance, scope and organization of the study.

## **Chapter 2**

### **Literature Review**

#### **2.1 Introduction**

This chapter covers a comprehensive study of the literature written in the published journals to explain the need and significance of tax fairness in the countries like Libya, which is one of the struggling developing countries on the globe. According to Sekaran, (2003), literature review or in other words literature survey is the systematic and synchronised documentation or the review of both published and unpublished works which are collected from both primary and secondary sources. Here the chapter is divided among tax compliance as dependent variable and five dimensions of tax fairness: general fairness, tax rate, exchange with government, attitude towards taxes of the wealthy and self-interest and their link with tax compliance.

#### **2.2 Review of Literature**

##### **2.2.1 Tax Compliance**

Tax compliance has long been an issue for governments throughout the world and there is a large and rich research literature in this field. Whichever specific aspect the research focuses on regarding the level of and reasons for individuals, companies and other entities to avoid or meet their legal tax obligations, the overall objective is effectively the same, namely to shed light on government and tax authority policies in raising revenue in order to finance government expenditure (Atawodi, O.W. and Ojeka, S.A, 2012).

According to James, (2011), tax compliance refers to the willingness of individuals to act in accordance with in both the spirit and the letter of the tax law and administration

without the application of enforcement activity. In this study, tax compliance is assumed to take place when the taxpayer files all required tax returns at the proper time and that returns accurately report tax liability in accordance with the tax law applicable at the time the return is filed. This definition is adopted from Erdoardo et al, (2013), as it provides a better definition when compared to the definition used by). As there are various definitions of noncompliance, previous studies have also developed different measures of noncompliance behaviour.

The tax compliance literature has provided evidence suggesting that compliance is influenced by numerous factors (Reuter, 2012). Scholars identified these factors as economic, social and psychological (Joseph, M, 2008; Saad, Natrah, 2010; Kirchler, 2007). To mitigate the challenge of tax non-compliance, it is necessary to understand factors influencing an individual's decision to comply with tax laws.

Therefore, by identifying the dimensions that affect tax fairness perceptions, tax administrators can improve the equity of the tax system which may promote greater tax compliance (Atawodi, and Ojeka, 2012).

### **2.2.2 Tax Fairness**

Perception of tax fairness is an important component of tax compliance. Taxpayers tend toward to non-compliance if they perceive unfairness on the taxes (Laffer, 2014). However, when the tax fairness literature is reviewed we notice that problem is; the concept of tax fairness is often not well defined. For example according to Berhane, Zelalem, (2011), a tax system is defined as being fair when taxpayers are taxed based on their ability to pay. In this definition, Smith emphasizes the vertical fairness of taxation.

But, this definition does not include the comprehensive tax fairness perception. On the other hand, Christensen et al, (1994) emphasized that the concept of tax fairness is difficult to define because:

- (I) Tax fairness is multidimensional.
- (II) The concept of tax fairness can be defined both individual and societal levels.
- (III) Tax fairness and tax complexity are inseparable.
- (IV) Lack of tax fairness can be perceived as a justification for a cause for non-compliance.

Several studies have been conducted in western countries such as Australia and United States to observe how taxpayers' perceive tax fairness Gilligan and Richardson, (2005) and Richardson, (2006). According to study Gerbing, (1988) conducted a survey on identifying the dimension of tax fairness and found five fairness dimensions:

- (I) General fairness.
- (II) Exchange with government.
- (III) Attitude towards taxes of the wealthy.
- (IV) Tax rate.
- (V) Self-interest.

In other words, a good understanding of taxpayers' fairness perceptions is important for the tax authority to improve the tax system and consequently encourage taxpayers' compliance.

#### **2.2.2.1 General Fairness and Tax Compliance**

The nature of literature studied on the concepts of tax fairness and compliance with laws, policies and uniform procedures are mainly conceptual, having very few researches

supporting the practical field work backup. According to Sakarnor, M., Marziana., and Norkhazimah, (2012), the five dimensions of tax fairness including : general fairness, exchange with government, attitude towards taxes of the wealthy, progressive versus flat tax rate (tax rate) and self-interest have been explained.

Many researchers (Hammar, Jagers and Nordblom, 2009; Wilson, Breusch and Sheffrin, 1993; Hite and Roberts, 1991) have studied similar issues regarding the perceptions of individuals of tax fairness in their own countries. But, all these countries have been developed countries, thereby creating a gap for further research in the context of developing countries. Such research may reveal some differences in findings regarding the tax fairness dimensions and the perceptions of the taxpayers in the developing countries. This is supported by Andreoni et al, (1998) who felt the need for further research in developing and under-developed countries to obtain comparative results and a more balanced view.

In continuation, Richardson, (2006) takes the five dimensions tax fairness given by Brainyyah and Rusydi, (2013) and conduct a thorough research to find their significance. The research conducted by the two approaches, factor analysis and ordinary least square (OLS) multiple regression analysis, which described that general fairness, middle-income earners' tax share or burden and exchange with the government were statistically significant in influencing the behaviour of taxpayers' morale, which in turn, had an impact on tax compliance behaviour.

Gilligan and Richardson, (2005) investigated the impact of various dimensions of tax fairness on tax compliance while making a comparison between Hong Kong and Australia. They revealed a significantly different response of individuals in the two



countries. General fairness, structure of tax rate, the ability to pay and self-interest varied significantly. The tax compliance behaviour means score of Australians was slightly lower than that of respondents of Hong Kong. They claimed that there is no universally accepted relationship between various aspects of tax fairness perceptions and tax compliance behaviour.

By applying a multi-cultural approach, Chittenden and Foster, (2008) investigated the simplicity of the tax system, tax burden and tax transparency. They studied Australia, the United Kingdom (UK), the United States (US), Canada, Singapore and Hong Kong. The respondents, on average, had a consensus on the fairness of the tax system in their respective countries. For Singapore and Hong Kong, they found that the general perception of taxpayers regarding the tax system is that it is simple, easy to understand and fair. In case of Canada, the mean score of respondents' rating was below 3, i.e., 2.74. The same held true for the US, UK and Australia, i.e., an average score of 2.93, 2.55 and 2.46, respectively. The rating of taxpayers from Singapore and Hong Kong about the transparency and simplicity of the tax structure remained consistent while the rating for the UK and Australia was very low.

Azmi and Perumal, (2008) investigated the significance of the dimensions of tax fairness in Malaysia. The mean scores revealed a moderately fair tax system as the perception of Malaysians taxpayers. They applied principal component factor analysis and claimed that only three dimensions, i.e., self-interest, exchange with government and general fairness were statistically significant for Malaysian taxpayers. Saidi and Prasad, (2014) argued that there are five dimensions in tax fairness: tax rate structure, general fairness, special provisions, middle income tax earners' share/burden and tax system of

equality/inequality. They claimed that there is no universally accepted relationship between various tax fairness perceptions and tax compliance behaviour. It can thus be concluded on the basis of existing literature that there is mixed relationship between the various general tax fairness perceptions and tax compliance behaviour of taxpayers.

#### **2.2.2.2 Tax Rate and Tax Compliance**

Fair and equitable tax rate of a country determines the level of commitment from taxpayers from the aspect of general contribution to the national budget. The argument of tax rate is always in contradiction with general fairness, but the type of tax influences general fairness itself. Some countries impose tax for different reasons, for instance, to protect certain industries from foreign competitors. Some industries are specially taxed, like the banking sector and there are countries that impose no tax at all (Charles-Coll, 2011). The major problem identified by Abdulhadi and Obeidat, (2008) is finding an adequate balance between the differentiation of tax burden and equal treatment of different income types. The argument suggests that fair tax rate influences the tax compliance behaviour of taxpayers.

A mixed prediction regarding marginal equitable tax rate effects on tax compliance is provided by the economic models of rational compliance decisions. These models predict an increased compliance with tax (Somaya, 2012). On the other hand, mixed results or a negative relationship between tax rate and tax compliance is found in empirical literature. Some research studies, such as by (Nicoleta, 2011), has found a positive relationship between tax evasion and marginal tax rates. Abdalaziz, (2012) found a significant impact of marginal tax rate on under-reporting, while Barbuta-Misu, (2011) found no significant effect of marginal tax rate on under-reporting and evasion (Keen, M, 2014).

In the theoretical model of tax compliance there is an uncertain effect of fair tax rate on tax compliance, which largely depends on the taxpayers risk attitude. Whereas the empirical studies have explored conflicting findings on the impact of fairness tax rate on the tax compliance level.

Hence, according to Hammar, Jagers and Nordblom, (2009) the comparative analysis of influence of fair tax rates on tax compliance is very hard to be done. Talking about different countries and there income tax systems on individual bases, they may have quite similar structures, like in case of statutory tax rate: they have flat tax system or mainly progressive tax system having multiple rates and instalments. Similarly Hoek, (2008) continued that if two countries have silent difference in the tax rates, the assumed compliance will be have negligible effect on the fair tax rate.

It is found in many empirical researches that there exists a negative relationship between high tax burdens and tax compliance. However, to draw a final conclusion about the relationship between the income and the tax rate is difficult (Andreoni, Erard, Feinstein, 1998). The two proposed counteracting effects are: a high rate of tax decreases effective income leading to lower compliance of tax; on the other hand, with a reduction in the effective income, the tax evasion and aversion may increase. As a result, tax compliance will be reduced. There have been found an empirical support in about both of the prediction of models regarding impacts of tax rates on tax compliance, although the large part of the literature supports that the compliance is lower at high tax rates.

#### **2.2.2.3 Exchange with Government and Tax Compliance**

Tax fairness, in terms of so-called exchange with governmental measures, is operationally defined in previous research studies as the benefits from the government in

exchange for tax dollars (Azmi and Perumal, 2008). Wilson and Breusch, (2003) argued that the exchange for government is based on the direct equity theory application, since taxpayers usually make a comparison between the compliance benefits and tax payment. The equity theory states that there is more probability of tax compliance by the individuals when they perceive a fair system of taxation (Fadjar, 2012).

The focus of the research is on the perceived fairness of taxation and the compliance behaviour to understand the relationship between exchange with government and the taxpayer. As the satisfaction level of individuals with the government increases, the tax compliance also increases. Jeffrey, S, (2008) investigated the relationship between the tax system evaluation criteria and the perception of tax provision fairness. He made a comparison of two groups, i.e., taxpayers and tax preparers and found that taxpayers perceive an unfair tax system and an unfair exchange with the government. Increased perceived benefits from the government increase the declaration of income by the individuals.

#### **2.2.2.4 Attitude towards Taxes of the Wealthy and Tax Compliance**

Attitude towards taxation of the wealthy refers to special deduction and provision (specific rate) for the wealthy taxpayers and is a result of differences among social classes (Nicoleta, 2011). According to Berhane, (2011), the class of tax payers in the United States are differentiated in the tax system which includes special provisions where there are some explicit privileges for the wealthy people in the US. Kamala, (2008) has indicated that due to social classification, the taxation of the wealthy is regarded as positive element of taxation system. Therefore, the level of compliance among the lower income class is ensured by imposing higher rate of tax on the higher income.

In taxation systems where the rate of tax is flat, the difference between income levels results in differences in the taxed amount, as well as the total tax contribution. The negative and positive assessments of individuals are represented in their attitudes towards taxation of the wealthy. Attitudes towards taxation of the wealthy are supposed to encourage individuals to act according to them. Therefore, negative attitude towards taxation of the wealthy of taxpayers leads to tax evasion and less compliance with tax rules and regulations; while positive attitude towards taxation of the wealthy results in less tax evasion and more compliance. Generally, a positive attitude towards taxation of the wealthy is found towards tax evasion (Fenochietto and Pessino, 2013). Many research studies have found a significant but weak relationship between tax compliance and attitude towards taxation of the wealthy (Thomas, 2012).

The importance of attitude towards taxation of the wealthy is crucial for both the trust and the power dimension. Positive and favourable attitude towards taxation of the wealthy leads to increased trust in authorities; consequently, it will increase voluntary tax compliance. Generally, tax attitude towards taxation of the wealthy depends on the perceived use of collected money; therefore, it is linked to knowledge (Fenochietto and Pessino, 2013).

Saad, (2011) found that under-reporting is usually seen among self-employed taxpayers, but, government employees have more tendencies towards tax compliance. The wealthy taxpayers may have high claims on child insurance policies and on medical claims due to their status and life style. These excessive claims reduce the amount of tax paid by the wealthy taxpayers. In this sense, they receive more tax relaxation and claims than poor taxpayers, which create tax unfairness perception among poor and middle taxpayers.

But in reality, general deductions and provisions are meant for all who really qualify for it, not only for wealthy taxpayers.

#### **2.2.2.5 Self-Interest and Tax Compliance**

Hite and Roberts, (1992) explained the Tax Reform Act 1986 of the US and showed how the variable of self-interest explains assessment of the tax system by the taxpayers. Saidi, N. and A. Prasad, (2014) asserted that some people negatively affected by taxation laws perceive the tax system to be unfair compared to their not-affected counterparts. Hite and Roberts, (1992) used 10 tax reforms for understanding the relationship between fairness of the tax system and self-interest. They found a significant relationship between self-interest and fairness in case of tax changes and tax reforms. Brainyyah and Rusydi, (2013) argued that several research studies have found a significant relationship between self-interest and the attitude of taxpayers. It can be stated that self-interest is not fairness but self-interest influences the attitudes of the taxpayers in such a manner that builds the taxpayers' interest for getting benefit from the rules and regulations of taxation. According to Alabede, Ariffin and Idris, (2011), non-compliance is an example of significant connection between self-interest and tax cheating.

## **CHAPTER THREE**

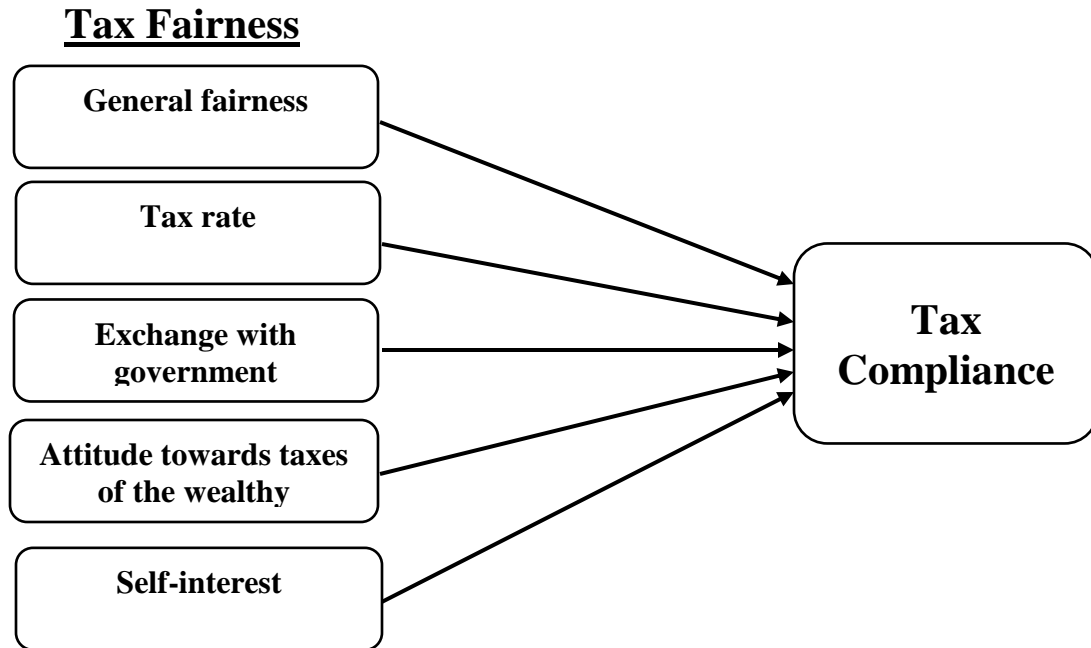
### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter discusses the research methodology and procedures undertaken by this study. Specifically, this chapter covers the theoretical framework, hypotheses of the study, research design, population of the study, sample size, sampling technique, data collection and data analysis techniques.

#### **3.2 Research Framework**

The framework was developed through an extensive review of the literature and based on research problems. This model emphasizes on the significant determinants that affect tax compliance in Libya. The framework is divided into two: the independent variables and the dependent variable. On the left, are: tax fairness dimensions (general fairness, tax rate, exchange with government, attitude towards taxes of the wealthy and self-interest). On the right, is the dependent variable which is tax compliance. The model of the study is illustrated in Figure 3.1.



**Figure 3.1**

*The Impact of tax fairness dimensions on Tax Compliance*

### **3.3 Hypotheses Development**

Five hypotheses are developed for empirical testing and validation. This study's constructs are tax fairness dimensions and tax compliance. The five hypotheses tested the relationship between the independent and dependent variables.

#### **3.3.1 Dependent Variable**

In this study, as shown in Figure 3.1, tax compliance is the dependent variable. Tax non-compliance can seriously harm the economy of Libya as it creates problems in collecting sufficient revenue for the development of the country. This means the government can only offer poor quality services. Zain, (2003) explains the influence of other contributing factors in developing a taxation environment by the help of which tax compliance can be provoked, and that is far behind the controls of administration, which is now termed as "state of mind" which plays influential role in tax payers motivation to meet tax obligations. Secondly One of the critical elements that could impact the of "state of



mind" is confidence of the taxpayer that the legislature has been reasonable and sensible on account of burden on every taxpayer, or at the end of the day, the taxpayer is persuaded that the tax they pay has been adequately tended to, so that the taxpayers can see the taxation system to be reasonable and justified (Brainyyah and Rusydi, 2013).

### **3.3.2. Tax Fairness**

Tax fairness is a key factor for a successful taxation system. There are many opinions of and different approaches to tax fairness. A fair tax rate is the most favoured taxation system, in which each and every citizen bears the same amount of tax.

#### **3.3.2.1 General Fairness**

General fairness of tax is the perception towards taxation system perceived by the distribution of taxation's impact on the economy and taxpayers themselves. The equal share of the taxation burden is a key factor for taxpayers to determine whether or not the taxation system is fair. General fairness perception among taxpayers is not limited to individuals, but also includes corporate taxpayers. The main feature of determining general fairness contradicts low tax rate. General fairness does not necessarily come with low tax rate, but it is the rate of tax that the taxpayers deem to be fair, according to return in the form of services from the government (Organization for Economic Co-operation and Development, 2001).

Mukasa, (2011) claimed that improved tax fairness leads to enhanced compliance behaviour. The fairness of tax affects the tax compliance behaviour. The knowledge of the taxpayers regarding taxation is another factor that affects the relationship between tax fairness and its compliance. The taxpayers' knowledge about taxation and its complexity

also affects tax fairness (Saad, 2010). The following hypothesis is formulated on the basis of the above discussion:

*H1*: There is a significant relationship between general fairness and tax compliance.

### **3.3.2.2 Tax Rate**

The tax rate refers as the amount of tax a taxpayer is going to pay according to the taxable item be it tangible or intangible in nature (Jonathan, and Linda, 2013). According to them, a significant number of studies to investigate the relationship between fair tax rate and tax compliance have been conducted both in developed and developed countries.

Tax rate is investigated as one of the independent variables in the current study as it is thought that the rate of tax levied affects tax compliance. Jeffrey, (2008) found a positive and significant relationship between tax rate and tax compliance. Bayer asserted that greater tax rates lead to tax non-compliance behaviour among taxpayers. He argued that lesser tax rates might be a good policy measure to decrease tax compliance. Therefore, the next hypothesis is developed as follows:

*H<sub>2</sub>*: There is a significant relationship between tax rate and tax compliance.

### **3.3.2.3 Exchange with Government**

The existing body of literature regarding tax has already defined fairness operationally in terms of exchange with government measures, which refer to the exchange of benefits from government received for paying tax (Christenson et al, 1994). Gerbing, (1988) stated that governmental exchange is considered as a direct application of the equity theory because taxpayers generally make comparison between the benefits of compliance

and tax payment. The equity theory envisages a higher probability of tax compliance when benefits equate the tax payments by the individuals (Erdoardo et al, 2013).

The focus of this research is on the compliance behaviour and the perceived tax fairness in order to have an in-depth understanding of the association between the governmental exchange and tax compliance. The satisfaction level achieved by the individuals is associated with governmental exchange. Porcano, (1992) investigated the relationship between the evaluation criteria of a tax system and the perception of fairness about the tax provisions. He made a comparison between two groups: the taxpayers and the tax preparers, and found that taxpayers perceive an unfair tax system and exchange with government. The declaration of income increases in case of perceived benefits from government by the individuals through the tax paid. The present study hence proposes the following hypothesis on the basis of the above discussion:

$H_3$ : There is a significant relationship between exchange with government and tax compliance.

#### **3.3.2.4 Attitude towards Taxes of the Wealthy**

Attitude towards taxation of wealthy refers to special deduction and provision (specific rate) for the wealthy taxpayers, is a result of differences among social classes (Nicoleta, 2011).

Berhane, (2011) revealed explicit provision by the Internal Revenue Service (IRS) of the US for wealthy taxpayers. However, in Nigeria and some other parts of Africa, no such provision can be seen in “Personal Income Tax Act (PITA) 1993”. Higher claims are made by wealthy taxpayers on child insurance and medical claims due to their status and

life style. Some provisions and deductions of a general nature should be given to all who qualify and not just for the wealthy. In this regard, this study formulates the fourth hypothesis as follows:

$H_4$ : There is a significant relationship between attitude towards taxes of the wealthy and tax compliance.

### **3.3.2.5 Self-Interest**

Hite and Roberts, (1992) explained how the Tax Reform Act 1986 of the US showed self-interest as a determinant to assess tax fairness by taxpayers. Wartick, (1994) established that people experiencing loss or who are worse off due to the tax laws and regulations, consider the tax system as unfair; the opposite holds true for people getting benefit from the tax system. Hite and Roberts, (1992) used 10 specific tax reform changes to understand the relationship between tax fairness and self-interest and found a significant relationship between both in case of tax changes and tax reforms. McGowan, (2000) pointed out several research studies that found a significant relationship between self-interest and attitude of the taxpayers. Christensen et al, (1994) revealed a significant relationship between non-compliance with the tax system and self-interest. An individual who believes the tax system to be unfair considers non-compliance as justified. Based on the above discussion, the following hypothesis is proposed:

$H_5$ : There is a significant relationship between self-interest and tax compliance.

### 3.4 Summary of Hypotheses

Table 3.1 provides the summary of hypothesis developed for the current study. The five dimensions of tax fairness and their relationship with tax compliance tested through the developed hypotheses are as in Table 3.1

**Table 3.1**

*The independent variables and the hypotheses*

No	Tax fairness dimensions	The hypothesis
1	General Fairness	There is a significant relationship between general fairness and tax compliance.
2	Tax Rate	There is a significant relationship between tax rate and tax compliance.
3	Exchange with Government	There is a significant relationship between exchange with government and tax compliance.
4	Attitude towards taxes of the wealthy	There is a significant relationship between attitude towards taxes of the wealthy and tax compliance.
5	Self-interest	There is a significant relationship between self-interest and tax compliance.

### 3.5 Research Design

The objective of the present research is to determine the tax fairness dimensions that affect tax compliance behaviour of taxpayers in Libya. A questionnaire was designed consisting of 41 questions divided into two categories. The first section of the questionnaire contains personal information as well as demographic characteristics of respondents, which include age, gender, marital status, education level, income level and length of being a taxpayer; and the second section is regarding the tax fairness

dimensions: general fairness, tax rate, exchange with government, attitude towards taxes of the wealthy, self-interest and tax compliance as the dependent variable.

### **3.6 A survey Method**

The questionnaire was the primary tool for data collection from the respondents in this study. The nature and design of the questionnaire employed relied on studies that have been carried out previously.

#### **3.6.1 First Section: Profile of Respondents**

This section used ordinal measures to identify the profile of the respondents. All questions were in a close-ended form on age, gender, education level, marital status, income level and length of being a taxpayer.

#### **3.6.2 Second Section:**

##### **3.6.2.1 Tax Fairness Dimensions**

The second section of the questionnaire includes 20 questions on the independent variables: general fairness, tax rate, exchange with government, attitude towards taxes of the wealthy and self-interest. Based on the 20 questions, the five-point Likert was applied to retrieve respondents' perception about tax fairness (1 = strongly disagree, 2= disagree, 3= neutral, 4= agree and 5= strongly agree). The items to measure tax fairness dimensions were adopted from the study of Richardson, (2006).

##### **3.6.2.2 Tax Compliance**

The tax compliance construct was measured by using 15 items. The measurement was adopted from Juhi, (2011). Attitudes are generally measured using the Likert scale that

provides a range between '1' and '5' for responses to every statement. Generally, '5' represents strongly disagree and '1' represents strongly agree.

### **3.7 Source of Data**

As per Sekaran and Bougie, (2010), the data sources are researches required group of people, events or things of interests. In this study the population is the taxpayers from Tripoli City of Libya.

### **3.8 Population and Sample Size**

The population of the study are the taxpayers in Libya, particularly in Tripoli city. The population in this research consists of individuals taxpayers 16,543 taxpayers (Libyan Tax Authority, 2015). Based on the size of the population, the appropriate sample size for this study are 313. This is in accordance to the sample size proposed by Sekaran,(2013).

An appropriate or good sample is crucial to minimize the sampling error, thus indicating the need to get a good and appropriate sample size. Received only 560 respondents, out of which 403 respondents returned the questionnaire.

### **3.9 Sampling Technique**

According to Sekaran, (2013), sampling is the procedure of selecting an adequate number of elements from the people so that it would be probable to simplify the characteristics of the population based on simple random sampling techniques. By using random sampling technique, 1327 sample from subscribers of the Tripoli tax authority website (incometax.gov.ly) were randomly selected from the entire population of Tripoli city in Libya, using Microsoft Excel. Detail explanation of data collection method is discussed in section 3.10.

### **3.10 Data Collection Method**

Using a cross-sectional study design, this study employed a field study design. Cross-sectional study comprises data collection to answer the research questions (Cavana et al, 2001). Cross-sectional survey method was selected for the present study rather than face-to-face interview with respondents due to time constraints (Sekaran and Bougie, 2010). This research used online questionnaire survey to collect data from taxpayers. The advantages and disadvantages of such an approach were examined before deciding to use it for data collection. The key reasons that led to the selection of an online survey method were anonymity, convenience, data completeness, data accuracy and cost advantages that online surveys have over the traditional approaches. As mentioned by Hogg, (2003), rather than being annoyed at an inconvenient time with a telephone survey for example, respondents can complete online surveys at their own convenience and comfort.

The questionnaires were distributed to subscribers of the website of the Tripoli Tax Authority. The questionnaire were sent via web survey using Google drive by application of survey-monkey, which is easy to use and saves time and effort, keeping in minds the response rate. Google document is a free web service to develop online questionnaire and to create a data-based output in the form of an excel data sheet. Due to the weakness of the country's internet services, only 560 questionnaires reached the respondents, out of which only 403 respondents returned the questionnaire.

### **3.11 Variables Measurement**

This study aims to outline the factors that contribute to tax compliance behaviour of taxpayers in Libya. The questionnaire used has two sections to be filled by the respondents. The measures used were adapted from past studies conducted by Richardson



(2006), and were amended to suit the present study. These measurements are explained below:

**Part A:**

To identify the profile of the respondents the ordinal measures have been taken. Close ended questions have been asked: age, gender, marital status, education level, annual gross income and years of being a taxpayer. All these were measured using multiple choice scales.

**Table 3.2**

***Demographic Profile of Respondents***

Section	Respondents' (Background)	Number of items	Scale
A	Age Gender Marital Status Annual Gross Income Years of being a taxpayer Education Level	6	Ordinal Scale

Source: Richardson (2006)

**Part B:**

This section includes the questions that are related to the independent variables, i.e., factors that influence tax compliance of taxpayers in Libya. There are 20 questions on the independent variables: general fairness, tax rate, exchange with government, attitude

towards taxes of the wealthy and self-interest. In this section, a Likert Scale of five points (1= strongly disagree, 2= disagree, 3= neutral, 4= agree, 5= strongly agree) was used.

**Table 3.3**

***Independent variables***

**GENERAL FAIRNESS**

<b>No</b>	<b>The Statement</b>
<b>1</b>	For the average taxpayer, I think that the income tax system is fair
<b>2</b>	Generally, I feel that the income tax system is a fair tax system.
<b>3</b>	On the whole, the burden of income taxes is fairly distributed
<b>4</b>	The share of total income taxes paid by middle income earners is much too high

Source: Richardson (2006)

**TAX RATE**

<b>No</b>	<b>The Statement</b>
<b>1</b>	High income earners have a greater ability to pay income taxes, so it is fair that they should pay a higher rate of tax than low income earners.
<b>2</b>	It is fair that high-income earners pay proportionately more than low-income earners.
<b>3</b>	A fair tax rate should be the same for everyone, regardless of their income; whether they are wealthy or poor.
<b>4</b>	The share of the total income taxes paid by high-income earners is much too high.

Source: Richardson (2006)

### EXCHANGE WITH GOVERNMENT

No	The Statement
1	I get my fair value in terms of benefits received from the government, for example, education, medical and infrastructure benefits.
2	The income taxes that I have to pay are reasonable considering the benefits provided by the government.
3	The benefits I receive from the government in exchange for my income tax payments are reasonable.
4	I believe the government is providing me the appropriate level of facilities against the amount I paid for my tax.

Source: Richardson (2006)

### ATTITUDE TOWARDS TAXES OF THE WEALTHY

No	The Statement
1	Special provisions in the income tax law that apply only to a few people are unfair.
2	Some perfectly legal tax deductions are not fair because only the wealthy are in a position to use them.
3	People whose income is about the same as mine should pay the same amount of income tax regardless of what kind of investments they make.
4	As compared to the amount paid by more wealthy taxpayers, I pay more than my fair share of income tax.


Source: Richardson (2006)

## SELF INTEREST

No	The Statement
1	Current tax laws require me to pay more than my fair share of income taxes.
2	Compared to other taxpayers, I pay less than my fair share of income taxes.
3	Middle income earners pay more than a fair share of the income tax burden.
4	Compared to the amount paid by more wealthy taxpayers, I pay more than my fair share of income taxes.

Source: Richardson (2006)

**Table 3.4 Dependent variable - tax compliance**

 <b>TAX COMPLIANCE</b>	
No	The Statement
1	I used to trade or exchange goods and services with a friend or neighbor and not report in my tax returns.
2	I used to report my income fully, but not include a small amount of outside income from my income sources.
3	I usually do not report my cash income from a job in my tax returns.
4	I do not report my earnings from interest or investment that is not registered with government.
5	I add a little more than my actual spending when I report my business expenses.
6	I usually add my self-education expenses that are not really self-education expenses.
7	Since many rich people do not pay taxes, I also like to underpay a little.
8	If tax rates are high, it is not really cheating to pay less tax.
9	When you are not really sure whether or not you deserve a tax deduction, it makes sense to take a chance and take a deduction anyway.
10	With what things cost these days, it is fine to cut a few corners on your tax returns just to help pay the bills.

11	It is not wrong to hold back a little bit on taxes since the government spends too much anyway.
12	When you are not really sure about a tax deduction, it makes sense to record it somewhere hidden from the government.
13	It is not wrong to under-report certain income.
14	If the chances of getting caught by the government are low, it is worthwhile to pay less tax.
15	It is alright to occasionally under-report certain income or claim an overpaid tax.

Source: Richardson (2006)

### 3.12 Reliability

Reliability and validity tests are of crucial importance in order to confirm the consistency and accuracy of the instruments measuring the variables. Hair et al, (2007) claimed that a reliable scale must have questions that are consistently answered by the respondents in such a way that they are highly correlated. If they are not correlated, the scale is said to be unreliable. Cronbach's Alpha test was used to determine the reliability of the questionnaire for the present research. The value of  $\alpha$  coefficient was calculated in this test and one variable was removed from the original set of variables, making it possible to identify the subset that has the highest reliability  $\alpha$  coefficient. The scales are said to be reliable if all the results are greater than or equal to 0.7 (Sousa et al, 2006). However, Hair et al, (2007) argued that based on the research objectives, lower values of the coefficient may also be accepted. For example, Nunnally, (1978) proposed 0.50 to 0.60 value of the coefficient as acceptable. The study established that all the variables measurement reached average reliability of 0.733, 0.690, 0.676, 0.558, 0.686 and 0.919, for general fairness, tax rate, exchange with government, attitude towards taxes of the wealthy, self-interest and tax compliance, respectively. In this study, the reliability of attitude towards taxes of wealthy is 0.558 which is close to 0.60 and is acceptable as per

Nunnally, (1978). He mentioned that Cronbach's alpha coefficient of 0.50-0.60 is generally considered as acceptable.

### **3.13 Method of Data Analysis**

The collected data was analysed using SPSS 20.0. The data collected in this study was used to generate descriptive statistics, and the hypotheses were tested using multiple regression analysis technique. The descriptive measure that was used was frequency distribution. Frequency distributions display the number of responses associated with each value of a variable in the questionnaire. Hypothesis testing was done to assess the relationship between tax fairness dimensions (general fairness, tax rate, exchange with government, attitude towards taxes of the wealthy and self-interest) and tax compliance using correlation and multiple regression analysis.

### **3.14 Chapter Summary**

Chapter 3 presents the proposed research framework for the current research. The hypotheses development is based on the extensive literature. Also provided in this chapter are research design, population and sampling methods to collect the data from the taxpayers. Furthermore, the measurement of the constructs for this current research is given, including the items and procedure for analysing the data in detail.

## **CHAPTER FOUR**

### **RESULTS**

#### **4.1 Introduction**

This chapter discusses the results generated from the data analysis. The chapter comprises introduction and explanation of response rate of survey. The chapter later discusses respondents' profile. It also mentions descriptive statistics of demographic variables and results of data reliability test. This chapter also discusses data screening, correlation analysis and regression analysis and ends with the summary of findings.

#### **4.2 Response Rate**

A total of 560 questionnaires were sent through online survey, out of which 403 respondents returned the questionnaire, representing a response rate of 72%, which is considered as a good response rate, as shown in Table 4.1. Therefore, the 403 questionnaires were used for further analysis.

**Table 4.1**  
*Response Rate*

<b>Questionnaire</b>	<b>Frequency</b>	<b>Percentage</b>
Returned	403	71.96%
Not Returned	157	28.03%
Total Questionnaires Distributed	560	100%

#### **4.3 Respondents' Profile**

This sub-section presents the description of the respondents involved in this research,

including the age of the respondents, gender, marital status, annual gross income, education level and years of being a taxpayer.

**Table 4.2**

***Respondents' Profile***

<b>Demography</b>	<b>Frequency (n=403)</b>	<b>Percentage (%)</b>
<b>Age (years)</b>		
18-24	57	14.3%
25-31	61	15.3%
32-38	90	22.6%
39-45	73	18.3%
46-52	77	19.3%
52 and above	45	11.2%
Total	403	100%
<b>Gender</b>		
Male	232	57.6%
Female	171	42.4%
Total	403	100%
<b>Marital Status</b>		
Single	112	27.7%
Married	291	72.3%
Total	403	100%
<b>Annual Income</b>		
LD10,000 -15,000	133	33.00%
LD15,001-20,000	75	18.60%
LD 20,001-25,000	108	26.80%
LD 25001 and above	87	21.60%
Total	403	100%
<b>Years of being a taxpayer</b>		
0-5	127	31.5%
6-10	117	29.3%
11-15	90	22.3%
16-20	38	9.4%
21 and above	31	7.5%
Total	403	100%



The result in Table 4.2 above shows that 403 respondents answered the questions. About 14.3 % of the respondents are between the age of 18-24 years; 15.3 % are between the age of 25-31 years; 22.6% are of the age group, 32-38 years; 18.3% of the respondents represent the age group of 39-45 years; 19.3% of the respondents are from the age group of 46-52 years; and the remaining 11.2% of the respondents are over the age of 52 years.

There are 57.6% male respondents; and 42.4% of the respondents are female. In addition, among the respondents, 27.7 % are single; and 72.3% are married. This is because the Libyan economy structure constitutes majority of married individuals in the labour force.

In terms of annual income, majority or 33.0% earn LD 10,000 to 15,000; 18.60% respondents belong to income group of LD15,001 to 20,000; 26.80% earn between LD 20,001-25,000; and 21.60% of the respondents earn LD 25,001 and above.

A total of 403 respondents responded to the question about years of being a taxpayer. The results presented in Table 4.2 depict that 31.5% of the respondents are paying income tax for 0-5 years; 29.3% are paying tax for 6-10 years; 22.3% for 11-15 years; 9.4% are paying for 16-20 years; and 7.5% of the respondents are paying tax for more than 21 years.

#### **4.4 Reliability Test**

Reliability test was employed in the study in order to explain the reliability test used by the study. According to Litwin, (1995), internal consistency reliability test is the most common technique employed by many studies in testing reliability of variables. Table 4.3 shows the results of the reliability test.

**Table 4.3**

**Reliability Test of the Study**

Variables	No. of Items	Cronbach's Alpha
General Fairness	4	0.733
Tax Rate	4	0.690
Exchange with Government	4	0.676
Attitude toward taxes of the wealthy	4	0.558
Self-Interest	4	0.686
Tax Compliance	15	0.919

From Table 4.3 above, the study establishes that all the variables have average reliability of 0.733, 0.690, 0.676, 0.558, 0.686 and 0.919, for general fairness, tax rate, exchange with government, attitude towards taxes of the wealthy, self-interest and tax compliance, respectively. Literature shows that 0.70 coefficient signifies high reliability while 0.60 is generally considered sufficient and satisfactory for further analysis (Nunnally, 1978; Sekaran and Bougie, 2010). As for Cronbach's alpha for attitude towards taxes of the wealthy, the value is 0.558, which is questionable in general but Nunnally, (1978) suggested that alpha coefficients of 0.50 to 0.60 can be deemed acceptable for exploratory research. Hence, the Cronbach alpha values for all independent and dependent measures are acceptable.

**4.5 Descriptive Statistics**

Descriptive statistics is the discipline of quantitatively describing the main features of a collection of information, or the quantitative description itself. Descriptive statistics are

distinguished from inferential statistics (or inductive statistics), in that descriptive statistics aim to summarize a sample, rather than use the data to learn about the population that the sample of data is thought to represent (George and Mallery, 2003).

**Table 4.4 Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
GF	398	1.00	5.00	3.8606	0.73614
EW	398	1.00	5.00	3.9181	0.78605
TW	398	1.00	5.00	4.2670	0.54824
TR	398	1.00	5.00	4.2104	0.54157
SI	398	1.25	5.00	4.2381	0.52370
TC	398	1.60	5.00	4.2990	0.62634
Valid N (list wise)	398				

Note: GF= General Fairness; EW= Exchange with Government; TR= Attitude towards Taxes of the Wealthy; SI= Self-Interest.

Table 4.4 above indicated that the dependent variable i.e. tax compliance and independent variable i.e. general fairness, exchange with government, attitude towards taxes of the wealthy, tax rate, self-interest, recorded a mean score of 4.2990, 3.8606, 3.9181, 4.2670, 4.2104, and 4.2381 respectively. In addition, the standard deviation stood at 0.62634 for independent variables, general fairness 0.73614, exchange with government 0.78605, attitude towards taxes of the wealthy 0.54824, tax rate 0.54157, self-interest 0.52370. Based on the above table attitude towards taxes of the wealthy has a highest mean score 4.2670 far above the remaining variables; whereas, general fairness has reached 3.8606 mean score which is the lowest amongst the independent variables.

#### 4.6 Correlation Analysis

This section explains the level at which one variable correlates with another. According to Asteriou and Hall, (2007), correlation analysis is used to explain independent and Table 4.4 presents the correlation matrix among the variables.

**Table 4.5**

##### Correlation analysis

	General Fairness	Tax Rate	Exchange with government	Attitude towards taxes of wealthy	Self-Interest	Tax Compliance
General Fairness	1					
Tax Rate	0.043	1				
Exchange with government	0.545**	0.039	1			
Attitude towards taxes of wealthy	0.057	0.111	0.509**	1		
Self-Interest	0.223*	0.197*	0.038	0.049	1	
Tax Compliance	-0.108**	0.618**	0.360**	0.729**	0.688**	1

\*\* Indicates correlation is significant at the 0.01 level (2-tailed).

\* Indicates correlation is significant at the 0.05 level (2-tailed).

Table 4.5 shows that general fairness and tax compliance have a significantly positive relationship with a correlation value of -0.108 ( $p < 0.01$ ). Meanwhile, tax rate and tax compliance indicate a significant correlation with correlation coefficient ( $r$ ) = 0.618 ( $p < 0.01$ ) which is a strong significant relationship at less than 1% level. Exchange with government and tax compliance have significant correlation with tax compliance with

$r=0.360$  ( $p<0.01$ ). There is strong positive and significant correlation of 0.729 at  $p<0.01$  between attitude towards taxes of wealthy and tax compliance. Self-Interest has significant correlation with tax compliance at value of  $r=0.688$ , significant at  $p<0.01$ .

From the above, it can be seen that all variables have significant correlation with tax compliance, significant at less than 1% level of confidence. These are general fairness, tax rate, exchange with government, attitude towards taxes of wealthy and self-interest.

#### **4.7 Regression Analysis**

Regression analysis is divided into simultaneous or standard, sequential multiple or hierarchical regression, and stepwise regression (Pallant, 2013). Statistical Package of Social Science (SPSS) used due to it is appropriateness technique to address this study's research questions. Multiple regressions were employed by the present study to explore the relationship between independent variables and the dependent variable using SPSS version 20.0. The variables included in the regression analysis are the tax fairness dimensions of this study: general fairness, tax rate, exchange with government, attitude towards taxes of the wealthy, self-interest and tax compliance (dependent variable).

Table 4.6 below summarizes and demonstrates the analysis of the multiple regression result carried out by the present study, where tax compliance is the dependent variable while tax fairness dimensions (general fairness, tax rate, exchange with government, attitude towards taxes of the wealthy and self-interest) are used as predictors.

**Table 4.6**

***Model Summary***

Model	R	R square	Adjusted R Square	Stand. Error of the Estimate	Durbin Watson
1	0.853 <sup>(a)</sup>	0.728	0.724	0.32898	1.576

a. Predictors: General Fairness, Tax Rate, Exchange with Government, Attitude towards Taxes of Wealthy, Self-Interest.

Table 4.6 above shows  $R^2$  as 0.728 which indicates that the independent variables explain 73% changes in tax compliance; while other variables outside the study scope accounted for 23%. Moreover, higher R square reflects the relationship of the variables used in this study Hilke, et al, (2014) conducted a study on tax fairness in Australia and for their study was 0.65. The high R square for the model in tax fairness. Study is normal, which is also the case for present study.

As mentioned by Kumar et al. (2013), a t-value greater than 1.645 indicates that the association between the independent and dependent variables is significant; therefore, the hypothesis can be accepted or rejected. In Table 4.8, the coefficients indicate that the influence on the dependent variable of unit increases or decreases in any of the independent variables. The probable model can be designated as:

**Tax Compliance** = 0.453 -.362 General Fairness +. 071 Exchange with Government +.359 Attitude towards Tax of the Wealthy +.338 Tax Rate +.280 Self-Interest

**Table 4.7*****Regression Analysis Results***

Model	Unstandardized Coefficient		Standardized Coefficient	t	Sig.
	B	Std. Error			
Constant			Beta	2.751	0.006
General Fairness	-.309	.027	-.362	-11.444	0.000
Tax Rate	0.391	0.45	0.338	8.777	0.000
Exchange with Government	.057	.032	.071	1.786	0.075
Attitude towards taxes of the Wealthy	.410	.049	.359	8.384	0.000
Self-interest	.355	.046	.280	7.321	0.000

Dependent Variable: Tax Compliance

Table 4.7 indicates that the result of multiple regression shows that all five dimensions of the tax fairness variable are found to be statistically significant. Firstly, considering the independent variable of general fairness in relation to tax compliance, the results of this study support the hypothesis that there is a significant relationship between general fairness and tax compliance because ( $\beta = -.309$ ,  $t = -11.444$ , and  $p = 0.00$ ). This outcome concurs with the majority of prior researches which examined the effect of general fairness on tax compliance and found that general fairness has a strong effect on tax compliance behaviour of taxpayers.

**Table 4.8*****Summary of the Hypothesis***

Hypothesis	Variable	Beta	SE	t-value	P-value	Sig
H <sub>1</sub>	General Fairness	-.309	.027	-11.44	.000***	Supported
H <sub>2</sub>	Tax Rate	.410	.049	8.384	.000***	Supported
H <sub>3</sub>	Exchange with Government	.057	.032	1.786	.075*	Supported
H <sub>4</sub>	Attitude towards taxes of Wealthy	.391	.045	8.777	.000***	Supported
H <sub>5</sub>	Self-Interest	.335	.046	7.321	.000***	Supported

\*\*\* p<0.01, \*\* p<0.05, \* p<.10

Similarly, hypothesis 2 which states that there is a significant relationship between tax rate and tax compliance is proven to be statistically significant at less than 1% level of confidence ( $\beta = .410$ ,  $t = 8.384$ , and  $p = .000$ ); therefore, this finding supports the second hypothesis and concludes that 1% increase in tax rate will lead to increase in tax compliance by 41% in tax compliance behaviour.

The third hypothesis that exchange with government has a positive relationship with compliance is statistically significant at 10% confidence level ( $\beta = .057$ ,  $t = 1.786$ , and  $p = .075$ ); this shows that exchange with government leads to tax compliance and hence hypothesis 3 is supported. Hence, a 1% increase in exchange with government will lead to increase in tax compliance by 5.7%.



In addition, the independent variable, attitude towards taxes of wealthy in relation to tax compliance, shows a statistically positive relationship at less than 1% level of confidence ( $\beta = 0.391$ ,  $t = 8.777$ , and  $p = .000$ ). As a result, hypothesis 4 of this study is supported. The present result means that 1% increase in attitude towards taxes of wealthy leads to increase in tax compliance behaviour. This is because the taxpayers are satisfied with the provisions by the government in return for the tax paid by them.

Finally, the result from the multiple regression on whether self-interest has a significant relationship with tax compliance is statistically significant ( $\beta = 0.335$ ,  $t = 7.321$ , and  $p = .000$ ). This implies that self-interest is significant at less than 1%. A 1% change in self-interest of tax-payers will enhance tax compliance by 35%. This, hypothesis 5 is also supported.

#### **4.8 Chapter Summary**

The chapter discusses the result obtained from multiple regression and data screening in order to establish the relationship between tax fairness dimensions (general fairness, tax rate, exchange with government, attitude towards taxes of the wealthy, self-interest) in relation to the dependent variable (tax compliance). The study used primary method of data collection (questionnaire) covering the five independent variables that explain 73% of changes in tax compliance. The data is free from multicollinearity and normality problem, and the variables are proven to be statistically significant.

**Table 4.9**

***Summary of Hypothesized relationships***

<b>Hypothesis</b>	<b>Relationship</b>	<b>Findings</b>
H1	There is a significant relationship between general fairness and tax compliance	Supported
H2	There is a significant relationship between tax rate and tax compliance	Supported
H3	There is a significant relationship between exchange with government and tax compliance	Supported
H4	There is a significant relationship between attitude towards taxes of the wealthy and tax compliance	Supported
H5	There is a significant relationship between self-interest and tax compliance	Supported



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## **CHAPTER FIVE**

### **DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Introduction**

The previous chapter discusses the empirical findings of the present study. This chapter presents the discussion or implication of the study findings grounded on the research questions, hypotheses and literature review. The chapter begins with the discussion of the results after which a summary is presented, followed by the conclusion and finally the recommendations for future researchers and policy-makers.

#### **5.2 Discussion of Results**

This section discusses the direct relationship that exists between tax fairness dimensions (general fairness, tax rate, exchange with government, attitude towards taxes of the wealthy, self-interest) and tax compliance. Variables covered by the present study are discussed in the context of the Libyan economy. The following discussion is derived from the results of correlation analysis and regression analysis results.

##### **5.2.1 General Fairness and Tax Compliance**

$H_1$ : There is a significant relationship between general fairness and tax compliance.

General fairness is hypothesized to have a significant relationship with tax compliance in the present study. The study accepts the findings since there is a significant relationship as hypothesized. This shows that general tax fairness plays a vital role in determining taxpayers' attitude toward tax compliance. The more general fairness perception someone has, the more will be the compliance with the tax. For instance, a fairer tax system will lead to compliance voluntarily, thus increasing government tax income. The results of

this study show that there is negative relationship between general fairness and tax compliance.

Since the 1970s, various studies have been study to watch the part of impression of tax fairness in tax consistence conduct (Efebera et al, 2004; Etzioni, 1986). However, these studies provided mixed and inconclusive findings. While some researchers have found a positive association between the two variables (Harris 1989; Roberts, 1994), others have not been able to support such findings (Coleman 1997; Porcano, 1988). In fact, some studies have indicated that there is a negative relationship between of tax fairness and compliance behaviour (Lempert, 1992). Richardson and Sawyer, (2001) contended that such mixed findings are probably due to the different definitions of perception of tax fairness used in these studies. Notwithstanding that, a universal pattern appears to exist cross-culturally in relation to the manner in which taxpayers formulate their judgments about whether or not to comply with their tax obligations. Similarly, the cultural difference between perception of Libyan taxpayers and perception of fairness of tax system in Libya can be the one of the reasons for the negative relationship found in this study between general tax fairness and tax compliance behaviour in Libya. Saad, (2012) mentioned that findings of her study also provide support to the view that the perception of tax fairness and compliance behaviour could differ across countries.

### **5.2.2 Tax Rate and Tax Compliance**

$H_2$ : There is a significant relationship between tax rate and tax compliance.

From the regression analysis obtained in this study, tax rate is significantly related to tax compliance. This shows that in Libya the higher the tax rate, the higher will be the tax compliance. From the regression analysis got in this study, tax rate is altogether identified

with tax compliance. This demonstrates that in Libya the higher the tax rate, the higher will be the tax compliance. Since Hai and See, (2011) suggest that majority of the studies found that the higher tax rate has higher influence on tax noncompliance. On the other hand, large part of the empirical studies finds the higher the tax rates minimize the compliance or give mixed results. Pommerehne and Weck-Hannemann, (1996) show that avoidance increases with expanding marginal tax rates. Additionally Clotfelter, (1983) and Slemrod, (1985) found that the marginal tax rate significantly affects under reporting. Allingham and Sandmo, (1972) discovered a positive and critical relationship between tax rate and tax compliance. Allingham and Sandmo, (1972) suggested that mainly the rational compliance economic models provide decisions in two forms either in the form of mixed predictions having effect of marginal tax rate on compliance or on the other hand the increased tax rates which would also increase compliance.

In Porcano's, (1988) study, the tax rate had no impact on avoidance and underreporting. The consequences of this present concentrate additionally in accordance with investigation of Mas'ud et al, (2014), Imobhio and Izedonmi, (2015) likewise discovered positive relationship between tax rate and tax compliance conduct. This study has positive relationship between tax rate and tax compliance in accordance with past studies. In this manner, in a latest study in one of the African country, which demonstrate that tax rate don't have any positive or negative impact on tax compliance (Modugu, Eragbai, and Izedonmi, 2012). Different studies have discovered a negative relationship between tax rate and tax avoidance or positive relationship between tax rate and tax compliance (Alm, Sanchez, and De Juan, 1995; Feinstein, 1991).

From the previous analysis, it is obvious that there are mixed results on the relationship between tax rate and tax compliance. Despite the fact that larger part of writing demonstrated that the high tax rate is decidedly identified with tax avoidance and contrarily identified with tax compliance, different studies results either no relationship or truth be told even positive relationship between tax rate and tax compliance.

### **5.2.3 Exchange with Government and Tax Compliance**

$H_3$ : There is a significant relationship between exchange with government and tax compliance.

The present study hypothesized that exchange with government and tax compliance has a significant relationship. The result obtained support the stated hypothesis with a t-value of 8.384 and statistically significant at less than 1% confidence level. This shows that perception of individuals about exchange with government can have significant impact on tax compliance behaviour. For instance, if the government is providing their taxpayers with fair value in terms of benefits, such as education, medical and infrastructure facilities, this will have significant impact on tax compliance behaviour of taxpayers. Hence, taxpayers' impression of the legislature significantly effects on individual income tax compliance. So this finding backs the findings of Modugu et al, (2012); and Uadiale et al, (2010). The finding on taxpayers' impression of the government is of course and coherent. It proves that the legislature has notoriety to upkeep and what taxpayers make of that notoriety is a key element when considering tax compliance. So we can say, taxpayers' appraisal of the government as far as responsibility, fidelity, legitimate administration, transparency and different excellences, rises to the level of compliance that ought normal. The results of this study are in accordance with the findings of

(Aronmwan, Imobhio and Izedonmi (2015); Modugu et al, (2012); and Uadiale et al, 2010).

#### **5.2.4 Attitude towards Taxes of the Wealthy and Tax Compliance**

$H_4$ : There is a significant relationship between attitude towards taxes of the wealthy and tax compliance.

Attitude towards taxes of the wealthy is the fourth dimension of tax fairness considered in the present study and is hypothesized to have a significant relationship with tax compliance. This is because when the special provisions in the income tax law that apply only to a few people are unfair, the behaviour of taxpayers will significantly impact on compliance with tax payment. Many studies on tax compliance have found significant, but weak relationships between attitude towards taxes of the wealthy and tax compliance (Trivedi, Shehata, and Mestelman, 2004). The studies of Chan et al, (2000); and Mustapha, (2010) also found that taxpayer attitude (fairness) has a positive relationship with tax compliance.

The philosophy or approach towards taxes of the wealthy is as important for power and the trust aspect. From one perspective, a great disposition will add to confide in powers and thus will upgrade deliberate tax compliance. Then again, state of mind towards the powers (authorities) will be pertinent for the understanding of the utilization of force as big-hearted or noxious. This study affirms that there is a positive relationship between mentality towards taxes of the wealthy and tax compliance, as likewise found by (Chan et al, (2000); and Mustapha, 2010).

### **5.2.5 Self-Interest and Tax Compliance**

$H_5$ : There is a significant relationship between Self-interest and Tax Compliance.

This aspect explores the amount of tax the individual personally pays being too high generally and in comparison to others (Richardson, 2006). Regarding self-interest, it is hypothesized a significant relationship exists between self-interest of taxpayers and tax compliance behaviour. The results of this study are in line with McGowan, (2000); and Christensen et al, (1994). McGowan, (2000) explains that many studies have found that self-interest (defined as direct personal benefit) significantly affects taxpayers' attitude. The findings of Azmi and Perumal, (2008); and Barbuta-Misu, (2011) support the results of this current study that self-interest has a significantly positive relationship with tax compliance. Christensen et al, (1994) found a significant relationship between self-interest and tax compliance. If an individual believes that the tax system is fair, then he or she thinks compliance itself is justified.

### **5.3 Summary and Conclusion**

The study is motivated by the problem of tax non-compliance. It is based on the need to investigate factors that influence tax compliance in Libya. The study used available empirical evidence to examine five dimensions of tax fairness, namely general fairness, tax rate, exchange with government, attitude towards taxes of the wealthy and self-interest and their impact on tax compliance. Five hypotheses were formulated based on extensive literature review. The population of the study were taxpayers of Libya, and the sample was drawn to represent the population. Data was collected using questionnaire and analysed using multiple regressions analysis, and tested for multicollinearity and normality. The results show that the five dimensions of tax fairness (general fairness, tax



rate, exchange with government, attitude towards taxes of the wealthy and self-interest) explain 72% of the changes in tax compliance.

Based on the findings, discussion and summary, the present study concludes that there is a significant relationship between general fairness, tax rate, exchange with government, attitude towards taxes of the wealthy and self-interest and tax compliance. All the dimensions and proposed relationships are supported.

#### **5.4 Implication of the Study**

From the aforementioned discussion, the findings have significant contribution to the theoretical as well as practical/policy implications, which is discussed in the following sub-sections.

##### **5.4.1 Theoretical Implications**

The findings of this study demonstrate that tax compliance can be measured with general fairness, tax rate, exchange with government, attitude towards taxes of the wealthy and self-interest. More so, the result of the present study contributes to existing literature as well as theoretical development in several ways: (i) the present study tested the five dimensions of tax fairness (general fairness, tax rate, exchange with government, attitude towards taxes of the wealthy and self-interest) and their impact on tax compliance; and (ii) most of the previous studies have been conducted in developed countries to assess the impact of tax fairness on tax compliance and only a few studies have been undertaken in developing countries. Therefore, the current study contributes to tax compliance literature in the context of Libya.

### **5.4.2 Practical/Policy Implications**

The present study contributes practically to developing economies' tax system, in general, and Libya, in particular. Policy-makers should enhance tax compliance behaviour to increase government revenue and boost socio-economic standard and quality of life of citizens. For instance, the present findings show a significant relationship between tax fairness dimensions (general fairness, tax rate, exchange with government, attitude towards taxes of the wealthy and self-interest) with tax compliance. The findings mean that transparency and fairness of the tax system will enhance the level of tax compliance by a significant level. As a result, the government should device a fairer tax system to increase the level of tax compliance.

The tax rate demonstrates a significant relationship with tax compliance. This shows that the government should consider reducing tax rates, which will enhance tax compliance behaviour, and in turn, increase government revenue, since taxpayers will voluntarily comply. In addition, the government should consider introducing a fairer tax system to boost the tax compliance behaviour of taxpayers, since the higher the tax fairness perception, the more positive is the tax compliance behaviour.

## **5.5 Limitations and Recommendations for Future Researchers**

There are various limitations of the present study, giving future researchers, gaps to be improved.

### **5.5.1 Limitations**

- (i) The study is restricted to specific sample size of 403 respondents who are residents of Tripoli. Thus, generalizing the result may not be valid to other

regions of Libya.

- (ii) The anticipated limitations of questionnaires, such as misunderstood or avoided questions, could affect the validity of the results.
- (iii) The present study the present study using survey method data collection. Future studies can use other methods of data collection such as interviews to set more information from the taxpayers.

### **5.5.2 Recommendations for Future Researchers**

- (i) The variables of this study have positive relationship with tax compliance and are statistically significant. Future researchers can confirm or disconfirm this finding.
- (ii) Future researchers should consider other parts of Libya in their sample, especially areas with highest business opportunities to represent opinions of taxpayers from different geographical regions.
- (iii) The results of this study can help researchers or other parties interested in the tax system, since this research highlights the most significant factors that influence tax compliance in the Libyan context.
- (iv) The findings of this study can be compared to other Arabic or developing countries, which share a similar socio-economic environment, as well as with other developed countries.

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