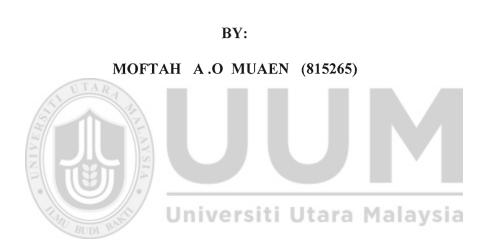
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### DETERMINANTS OF TAX ADMINISTRATION EFFICIENCY IN LIBYA



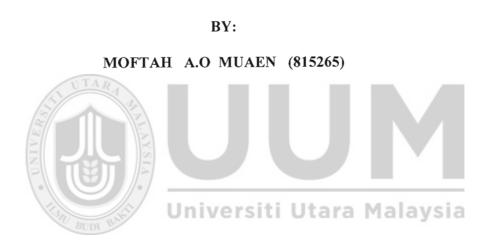
### MASTER OF SCIENCE (INTERNATIONAL ACCOUNTING)

### UNIVERSITI UTARA MALAYSIA

2016

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### DETERMINANTS OF TAX ADMINISTRATION EFFICIENCY IN LIBYA



# MASTER OF SCIENCE (INTERNATIONAL ACCOUNTING) UNIVERSITI UTARA MALAYSIA

2016



Pusat Pengajian Perakaunan Tunku Puteri Intan Safinaz

TUNKU PUTERI NTAN SAFINAZ SCHOOL OF ACCOUNTINCY

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### ABSTRACT

Tax is one major source of government revenue, however, not every national government has been able to effectively exploit this great opportunity of revenue generation. The tax is collected at very lower level because of the inefficiency of tax administration in Libya. The purpose of this study is to investigate the determinants of tax administration efficiency from the Libyan perspective. This study is based on five variables that are used to determine the factors that affect tax administration efficiency in Libya. The five variables that are measured in this current study are autonomy, motivation, information and communication technology ICT, training and leadership style. The data were collected through the distribution of questionnaires to 250 respondents in Libya. 161 out of 250 questionnaires were sufficient and a valid rate for the analysis by using the Partial Lease Square-Structural Equation Modeling (PLS-SEM) software. By using correlation and regression analyses, the outcomes of the study show that there is a positively and significant relationship between motivation, ICT training and leadership style with tax administration efficiency. On the other hand, autonomy indicates a negative and insignificant relationship with tax administration efficiency.

Keywords: autonomy, motivation, ICT, tax administration.

### ABSTRAK

Cukai adalah salah satu sumber utama pendapatan kerajaan, bagaimanapun, tidak semua kerajaan dapat mengeksploitasi peluang ini untuk menjana pendapatan dengan berkesan. Cukai yang dikutip di tahap yang sangat rendah kerana ketidakcekapan pentadbiran cukai di Libya.Tujuan kajian ini adalah untuk menyiasat penentu kecekapan pentadbiran cukai dari perspektif Libya. Kajian ini adalah berdasarkan kepada lima pembolehubah yang digunakan untuk menentukan faktor-faktor yang memberi kesan kepada kecekapan pentadbiran cukai di Libya. Lima pemboleh ubah yang diukur dalam kajian ini adalah: autonomi, motivasi, teknologi komunikasi dan maklumat , latihan dan gaya kepimpinan. Data yang telah dikumpulkan melalui pengedaran soal selidik kepada 250 responden di Libya.161 daripada 250 soal selidik yang diperolehi mencukupi dan pada kadar yang sah untuk analisis dengan menggunakan perisian separa Lease Square-Structural Equation Modeling (PLS-SEM). Dengan menggunakan analisis korelasi dan regresi, hasil kajian menunjukkan bahawa terdapat hubungan yang positif dan signifikan antara motivasi, latihan dan gaya kepimpinan dengan kecekapan pentadbiran cukai. Sebaliknya, autonomi menunjukkan hubungan yang negatif dan tidak significan dengan kecekapan pentadbiran cukai.

Kata kunci: autonomi, motivasi, ICT, pentadbiran cukai.

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### CHAPTER ONE

### INTRODUCTION

### 1.1 Introduction

This chapter includes an outline of the study and summary of key points. The chapter begins with the background of the study, followed by problem statement, research objectives, research questions, scope of the study, significant of the study, structure of the thesis and chapter summary.

### 1.2 Background of the Study

In today's world economic system, one of the key duties of the ruling regime is to ensure the wellbeing of their citizens. The developments of states are directly associated to the revenue generation, which is one of the biggest challenges for the ruling government systems. According to the figure revealed in the recent years, the world has been a victim of three trillion U.S. dollars annual tax evasion (Thomas, 2012). For instance, Feige (2009) found that more than two trillion U.S. dollars has been missing from unreported revenue in the last decade in the United States. This had resulted in a tax breach ranging from 430 billion U.S dollars to 475 billion U.S. dollars per annum. Tax evasion, as mentioned by Wenzel (2002), is an unlawful avoidance of tax by tax payers including; individuals, businesses and trusts. It involves taxpayers intentionally not telling the truth about their properties to the taxation officials to decrease their tax responsibilities including deceitful tax declaration, for instance; lower income level, earnings or than the amounts made in reality. Tax evasion is practice that is usually connected with the informal economy. The role of tax administration in maximizing revenue generation and minimizing tax evasion and the level of tax evasion is also dependent on the tax administration efficiency (Slemrod, J., & Yitzhaki, S. 2002) An overall essence of the Libyan taxation can be summarized as generation of revenue to run the governance system as required assurance towards assistance in economic enlargement and improvement ensure the even-handedness and justness in revenue distribution economic stability and correctness in market deficiencies (Abderrahmane, 2015).Taxation in Libya are imposed according to New Libya Corporate Income Tax - Law No 7 of 2010 at different rates on individuals for income from real estate, agriculture, commerce, industry, crafts, wages, salaries and commercial taxes are ranged from 20% to 60% (Libyan Income Tax And Tax Laws, 2016). Despite the tax rules and regulations in the country, it has been facing big challenges in tax collection including tax evasion. According to Libyan Audit Bureau (2015), despite of having a strict tax collection law, the collected tax amount for the years 2014 had been recorded as lesser than the amount of previous years in 2012 and 2013. The tax collection has declined, as shown in Figure 1.1, from LD 838,837,217 in 2013 to LD 660,869,213 by year 2014, which is against the expectations of general budget than the amount estimated by 27%.

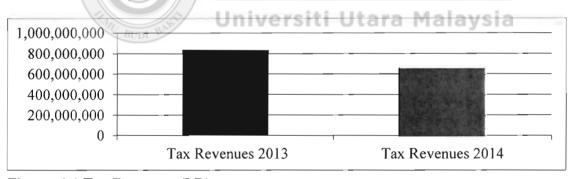


Figure: 1.1 Tax Revenues (LD) Source: (LAB, 2015)

Libyan taxation has been facing decrease in tax collection, inefficiency of the tax collecting authorities, while not following the Budget law (Libyan Income Tax and Tax Laws 2016). All the above given facts and figures show that in almost all the tax collection departments, mentioned above in Figure 1.1, the tax is collected at very lower level because of the inefficiency of tax administration in Libya. An efficient tax administration is a key determinant of investment climate; it helps to attract more investment, reduce poverty and increase growth. It also enables the government to raise revenue with lower tax rates (Rahman, 2009). This research intend to investigate the determinants of tax administration efficiency from the Libyan perspective.

### 1.3 Problem Statement

Libya, instead of having rich natural resources, is lagging far behind in generating its tax revenues. According to the Libyan audit bureau report (Bureau, 2015), issued by Libyan Audit Bureau, there are numerous internal and external reasons for poor tax collection in Libya for example, lack of power in tax department, poor leadership style as one of the factors that play important role in enhancing performance in the organization, most of the tax offices do not use ICT (Information and Communication Technology) and still use manual records in all area of revenue offices including headquarter, poor motivation of tax officials and inadequate training for employees are the main factors that reduce morale and high performance.

According to Libyan Audit Bureau (2015) collected taxes according to Law (Act. 7 of 2010) for the period from 1.1.2014 to 31.12.2014 amounted to LD 661 million i.e. lesser than the amount estimated by General Budget in LD 900 million at 27%. Tax revenue in Libya has been decreasing over the last five years; it has decreased from 2.243 billion LD to 660 billion LD from year 2009 to 2014 as showed in the Table 1.1. The Libyan revenue department generated tax revenue of 2.243 billion LD in year 2009, which decreased in year 2010 to 1.941 billion LD. It decreased in 2011 to 443 million LD and increased slightly in year 2012, reaching 687 billion LD. In year 2013, it increased slightly to 838 billion LD and decreased again in year 2014 to 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% compared to 2009. It further decreased by 77% in 2011. This trend shows that the tax revenue has been decreasing; which in turn appears as a problem for the government. This shows that there are problems in tax administration in Libya that significantly reduced the amount of tax revenue for the last five years. Table shows the tax revenues collected by tax authority from 2009 to 2014.

Year	Tax Revenue (Libyan Dinar)	Change %
2009	2,243,147,432	
2010	1,941,633,942	(13%)
2011	443,083,016	(77%)
2012	687,676,487 Universiti Uta	64%
2013	838,837,217	57%
2014	660,869,213	(21%)

Table: 1.1: Tax Revenue Collected By Tax Authority During 2009 to 2014.

Source: Libyan Audit Bureau (2015, p.34)

### 1.4 Research Questions

The study focuses on answering the following research questions:

- 1- Is there any relationship between autonomy and tax administration efficiency?
- 2- Is there any relationship between employee's motivation and tax administration efficiency?
- 3- Is there any relationship between ICT and tax administration efficiency?
- 4- Is there any relationship between employee training and tax administration efficiency?

5- Is there any relationship between leadership style and tax administration efficiency?

### 1.5 Research Objectives

This study intends to examine the following research objectives:

- 1. To examine the relationship between autonomy and tax administration efficiency.
- 2. To examine the relationship between employee motivation and tax administration efficiency.
- 3. To examine the relationship between ICT and tax administration efficiency.
- 4. To examine the relationship between employee training and tax administration efficiency.
- 5. To examine the relationship between leadership style and tax administration efficiency.

### 1.6 Significant of the Study

### 1.6.1 Theoretical Significance

This study is important and beneficial to researchers, policy setters and students of accounting and other related disciplines. The current study includes the variables that have not been tested in Libya in previous research related to tax administration efficiency. Previous studies for example Shagari (2014) in Nigeria have not included training and leadership style as one of the determinant factors of tax administration efficiency. Therefore, this research will provide an important contribution to the body of knowledge by testing these factors in Libya. This study will contribute to the literature of tax administration efficiency and the possible factors that determine tax administration efficiency.

### 1.6.2 Practical Significance

The current study is of high importance by examining the factors effecting on tax administration efficiency in Libya. The outcomes of the research will not only provide the detailed understanding of the factors that affect tax administration efficiency but also assist the Libyan tax administration in developing the relevant strategies to facilitate and assist in revenue generation. For example, if the ICT appears to be a significant determinant of tax administration efficiency, should be investing in this aspect in order to achieve its organizational objectives. Similarly, the motivation should be encouraged if it is found to have positive effect on tax administration efficiency.

### 1.7 Scope of the Study

The research is aimed at examining the determinant factors of tax administration efficiency in Libya. To consider the country as a whole is not easy due to the time constraint and other limiting factors. Therefore, the study is conducted in Tripoli city which is located in the northwestern part of the country and it is the capital city of Libya. Tripoli city also has the highest number of tax employees in Libya (Central Intelligence Agency, 2015). Therefore, this study will test the factors affecting tax administration efficiency to find out whether these factors affect the efficiency of tax administration efficiency in the perspective of Libya. The number of tax employees in the headquarter in capital city is 250 employees. Although the scope of this study is only in Tripoli city (employees of the tax administration headquarter in the capital city of Libya), the result can be useful to the country at large.

### 1.8 Structure of the Thesis

This study examines the determinant factors of tax administration efficiency. The thesis is divided into five chapters; chapter one contains an introduction under which the following is covered: background of the study, problem statement, research questions and objectives, significance and the scope of the study. Chapter two features the relevant literature reviews in the area of tax administration efficiency. It also includes empirical studies. The relationship

between tax administration efficiency and the selected variables are also discussed. Chapter three specifically consists of conceptual framework, hypotheses development ,research design, survey method, pilot test, data collection method, questionnaire design, population and sample size, data analysis, variables measurement and chapter summary. Chapter four explains the data analysis, interpretation, discussion and findings of the study. Chapter five comprises of the last part which includes the summary, conclusions and recommendations as well as a suggestions for future studies.

### 1.9 Chapter Summary

Chapter one starts by offering the general setting of the study where all the variables under study are explained. In this chapter as well, the problem statement, research objectives, research questions, significance of the study, its scope and organization of the thesis are provided. The following chapter reviews the related literature concerning tax administration efficiency.

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### **CHAPTER TWO**

### **REVIEW OF LITERATURE**

### 2.1 Introduction

This chapter reviews the related literature concerning tax administration efficiency. The chapter discusses the relationship between the dependent variable (tax administration efficiency) and the factors that influence tax administration efficiency from the tax employees' point of view. The literature includes previous empirical studies and other related literature on the issue under discussion.

In this study, five variables are to be used as independent variables (autonomy, motivation, ICT, training and leadership style), while tax administration efficiency will be the dependent variable and all these variables are very important in the perspective of Libya as mentioned by Libyan audit bureau (Bureau, 2015). Two of these variables i.e. training and leadership style have not been tested in prior studies and all the five variables have not been tested in the content of Libya.

Keeping in view the wide-ranging and importance of tax administration efficiency as a system of collecting revenue for the development of the citizens and country, the investigation on this perspective and the potential factors related to it is expected to practically contribute to improve the tax administration of the country. Similarly, the empirical study on the relationship between tax administration efficiency and the potential factors related to it will contribute theoretically and practically, by investigating five variables in one research framework i.e. autonomy, motivation, information and communication technology (ICT), training and leadership style. The following section

highlight the studies which to describe the relationship between the aforementioned variables with tax administration efficiency.

### 2.2 Tax Administration Efficiency

Diesing (1973) defines efficiency in public administration as the maximum achievement of a given end with given resources, so it includes within itself the values of maximization and achievement. Manzoor (2014) states that to be efficient simply means to take the shortest path, the cheapest means, toward the attainment of the desired goals i.e., the attainment of maximum values with limited means. Waldo (1984) defines the efficiency of an organization by measuring the ratio of the effects actually obtained with the available resources to the maximum effects possible with the available resources.

An efficient tax administration is a key determinant of investment climate; it helps to attract more investment, reduce poverty and increase growth. It also enables the government to raise revenue with lower tax rates (Rahman, 2009). Tax administration comprises of all the strategies and principles adopted by the government in order to plan, impose, collect and account for taxes, as well as to coordinate and monitor the staff those who are charged with the responsibility for taxation (Akintye & Tashie, 2013). Shagari (2015) examine the level of efficiency of tax administration in Nigeria as well as the association between autonomy and ICT with tax administration efficiency. The findings indicate autonomy and ICT has positive correlation with tax administration efficiency. Explicitly, the results suggest that in order to enhance the efficiency of tax administration in ICT. Moreover, tax administration deals with the duty and responsibility of different tax authorities as enacted by relevant tax laws (Kiabel & Nwokah, 2009). According to the OECD (2011), tax administration can be defined as

government activities, including the provision of public services, rely on taxes collected from citizens and businesses. Tax administrations perform the important functions of interpreting tax legislation collecting various taxes and social security contributions and enforcing tax laws. According to the OECD (2011), tax administration efficiency should be concerned with the relationship of employees and taxpayers. An efficient tax administration is a key determinant of investment climate; it helps to attract more investment, reduce poverty and increase growth. It also enables the government to raise revenue with lower tax rates (Rahman, 2009).

According to the OECD (2011), tax administration efficiency reduces costs while providing better services to citizens and businesses. The OECD further asserts that efficiency depends on how organizations design their internal organizational structures, how well they allocate their budgeted funds to meet their needs, how they utilize ICT to save costs and how they determine the levels and remuneration of their employees. According to Garde (2004), efficient tax administration requires reform of tax policy and administration, modern and efficient tax processes as well as competent staff. Ogbonna (2009) observed that failure of tax administration in Nigeria is a result of poor motivation of tax officials.

Tax administration efficiency hugely relies upon autonomy of the organizations, motivation, ICT, training, and leadership (Werner & Weck-Hannemann, 2006). Similarly, Ogbonna (2012) figured out that lack of motivation and training as key factors affecting the tax administration. From the above discussion, key factors in tax administration are highlighted. The following section describes more about these factors. Autonomy, according to London (2013), has a significant relationship with the efficiency of the public department administration that ultimately improves decision-making, human resources management, revenue generation and organizational infrastructure. Correspondingly, Casasnovas, McDaid and Costa-Font (2009) and Gammelgaard et al. (2012) stated that autonomy makes possible the policy and procedure making to improve customer services, employee rewards and appreciation system and inter-organizational relations that influences competence of the organization. Moreover, if the management is provided with autonomy to implement their policies in fair and free way, they can perform better using improved management skills (Demuzere, Verhoest, & Bouckaert, 2008).

### 2.3 Autonomy and Tax Administration Efficiency

According to London (2013), tax administration efficiency is affected by autonomy where the result shows that there is a significant relationship between autonomy and tax administration efficiency. Autonomy raises the usage of human resources, creates the source of capital for investments on infrastructure and make decision-making procedure easier. Moreover, autonomy can lead to both technical competency and user satisfaction. According to Casanovas, McDaid and Costa-Font (2009), autonomy can be defined as an organizational power which make easier policy making and satisfaction of needs for a consumer from public services. Likewise, Gammelgaard et al. (2012) tested the increases of organizational performance by some factors which found that autonomy assists for an administration of inter-organizational relationship. Meanwhile, they proclaim that by the increasing the performance effect of inter-organizational relationship because of the increase of autonomy necessarily can be in order to protect the inter-organizational relationship.

Goerdel and Pitts (2006) examined the relationship between performance and autonomy in public management where discover on their study that autonomy made up on various concepts, when managers know that they have a full freedom responsibility from engaging in political manipulation, they concentrating on how to improve organizational performance through executive policy efficiency, when managers have confidence that autonomy can change their policy, then will lead to know the barriers of organizational performance. Rahman (2009) confirmed that autonomy can lead to transparency of the tax administration with efficiency and effectiveness of its expenditures. Hence, reducing chances of the administration associated with corruption. Similarly, Crandall (2010) investigated that autonomy of government collection agencies can lead to better performance by eliminating problems towards effective and efficient tax administration, while maintaining appropriate transparency and accountability. Likewise, Cekmecelio and Gunse (2011) explored that autonomy bears an affirmative relationship with both the administration efficiency and creativity. Autonomy in the perspective of administration enhances the quality of services reduces bureaucracy in implementing management actions as well as improves management efficiency (Evelyn, 2004). Furthermore, successful and sustainable revenue authorities are those that have a higher level of autonomy (Manasan, 2003).

### Universiti Utara Malaysia

Another study by Goerdel and Pitts (2006) successfully establishes the relationship between autonomy and performance in public management. Their work analyzed that if the civil bureaucracy is given complete autonomy in their work, they handle the political and organizational pressure in a better way to make maintain the rule of law. With regards to the tax administration, Crandall (2010) and Rahman (2009) explored that the more is the autonomy the better will be the tax administration with good transparency and accountability. Not only that but the taxpayers also gets better services and benefits from more autonomous tax system (Mikesell J. L., 2003; Onyeukwu, 2010).

In the perspective of taxation administration, Mikesell (2003) found out that autonomy of tax administration helps making it more helpful for taxpayers to understand taxes structure, imposed by the governments maintains the transparency and accountability as well as management efficiency. Onyeukwu (2010) argues that the autonomy of tax administration has brought about multiplicity of tax burden to the taxpayer and the businesses companies are to pay different taxes by the provincial or state officials. However, Taliercio (2004) seemed more optimistic towards the semi-autonomous revenue authority arguing that the suggested set of administration can develop tax administration in developing countries in an efficient and comprehensive manner. Moreover, it is stated that autonomy can be observed as a resolution for lower rank corporate governance, for the reason that it authorize executives to have ample control over personnel, budgeting and procurement to manage tax administration effectively and efficiently. A thorough literature reveals that the organizations and institutions, in particular in developing states, have been severely suffering as the organizational authorities lacks at autonomy. For the reason, the external influences take Universiti Utara Malavsia place and that affects the performance of institutes. Keeping in consideration the main importance of autonomy in the lives of organizations, this study aims to investigate the relationship between autonomy and tax administration efficiency in Libya.

### 2.4 Motivation and Tax Administration Efficiency

Afful-Broni (2012) observed the relationship between motivation and job performance in the University of Mines and Technology. Descriptive survey design was employed with a sample of 200 respondents. According to the results of the study, lack of motivation and low monthly package are the leading elements that reduce morale and high performance. Another similar study by Croxton and Moniz (2009) on employees' motivation within the public sector; they postulated that it is very critical to recognize what motivates employees to be productive

within their workforce. Also, the overall outcome of their studies recommended that public sector employees are highly affected by intrinsic rewards such as salary.

Muogbo (2013) inspected the impact of employee motivation on organizational performance in manufacturing companies. Descriptive research design was selected as the methodology of the study and data was analysed using descriptive statistics. The outcome of the study revealed that extrinsic motivation given to employees in organizations increases efficiency and productivity. Lack of employee's motivation is one of the potential factors behind the poor tax administration. Motivation is considered one of the main incentive for employees in any organization. For example, Fisher and Hostland (2002) and Harchaoui and Morisette (2005) stated that there is an established and significant relationship between employee motivation and employee's performance. Andrew Sharpe and Jean-Francois (2008) pointed out a close relationship between salary benefits, motivation and work productivity. According to Akeel and Indra, D. (2013) and Abuhadra and Ajaali (2014), Libyan government officials have been badly suffering from lack of motivation in all public sector organizations including the department of tax collection.

Solomon et al. (2012) explored the effectiveness of motivation and organizational performance in Nigeria. According to the findings of the study satisfactory motivation enhances employee productivity. The authors proposed that in order to increase employee efficiency and productivity the organizations should harmonize continuous improvement. Manzoor (2012) observed the correlation between employee motivation and organizational effectiveness. The findings of the studies showed that motivated employees perform better in the best interests of the organizations which lead to higher growth, prosperity and productivity of the firm. Dobre (2013) inspected the motivational factors that motivate

employees towards higher levels of performance in the organization. Empowerment and appreciation of employees have been found to be key elements to enhance performance towards accomplishing organizational goals. In addition to this the author reported that involvement and empowerment of employees not only enhance efficiency, growth and innovation but also promote trust and motivation in the organization.

Marsden and Richardson (2003) examined the impact of motivation and performance among Inland Revenue staff in public sector organization in the U.K. According to the result of the study, staff motivation enhances the efficiency and effectiveness of their work. Motivated and competent personnel are crucial for improving service delivery and enhancing productivity in an organization. Keeping in view the principal importance of motivation for employees, one of the aims of this study is to investigate the relationship between motivation and Libyan tax administration efficiency.

# 2.5 Information and Communication Technology (ICT) and Tax Administration Efficiency

ICT is used to enhance performance in revenue administrations by reducing human error and processing times, providing readily accessible data for tax officers, promoting voluntary compliance thereby minimizing tax evasion and facilitating better decision making by tax authorities (Efunboade,2014). Victor-Nyambo (2009), findings revealed that, ICT help to maintain consistent record keeping, timely access of such records, fast processing of return which together improved the performance of tax revenue.

Efunboade (2014) shows clearly that, ICT plays an important role in the increase of internally generated revenue in Nigeria by ensuring compliance thereby boosting productivity and economic activities in the country. It is a change agent for accelerated growth and poverty

reduction in Nigeria and the whole of African continent at large. According to Olatunji (2015), ICT has a big influence on productivity in the SME industry in Nigeria. Chatama (2013), also found that use of ICT has minimized the administrative and tax collection expenses, minimized the personnel needs, saved time for taxpayers due to fast processing, justice and transparency in evaluation, collection, and related processes, reduced tax compliance costs, reduced communication costs, and timely access to information which results into plugging all revenue loss and improved efficiency and performance in revenue collections. Information and communication (ICT) changes at public sectors are essentially embedded in combinations of political changes and organizational reforms, designed to enact, support and drive a profound transformation in the organization of the public sector like; taxation department in Libya. Research in the field has so far prioritized the concept of ICT as a short cut to increase public sector efficiency and improve internal administration and management capabilities. The findings mostly reported positive relationship between ICT and public administrative efficiency (Andersen, Henriksen, Medaglia et al., 2010).

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The level of using ICT is low in Libyan commercial banks; in addition an analysis revealed that poor state infrastructure, especially within the fields of telecommunications and electricity, causes unattractive performance within Libyan commercial banking operation and government intervention was the main reason behind the lack implementation of ICT (Saeed & Bampton, 2013). According to Efunboade, (2014) his study shows clearly that ICT plays an important role in increase internally generated revenue by ensuring compliance thereby increasing productivity and economic activities in the country. It is a change agent for faster growth and poverty reduction in the whole of African continent at large.

With regards to the impact of globalization, Ongori and Migiro (2010) explore that many organizations has employed information and communication (ICT) in order to continue to exist in the present competitive age, particularly in the area of competing with big organizations. Likewise, Inuyo and Aregbeshola (2014), explored that the use of information and communication (ICT) has boosted up return on capital employed as well as return on resources of the banking industry of South African. Bresnahan (2002) argued that that long-lasting productivity benefits have been achieved by the enterprises due to the use of information information and communication (ICT). It is believed that the use of ICT helps organizations to fully maintain, and the data to obtain information at any given time that helps those organizations to achieve their desired target. Furthermore, ICT allows effective changes in businesses and helps to build competitive advantage hence, organizations of all types have a propensity to adopt the innovation (Apulu & Latham, 2011). According to Bakeer and Wynn (2014) and Hamdy (2007), Libyan officials working with the public sectors including the taxation department have been facing lack of use of information and communication (ICT).

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Findings of Shagari (2014) indicated that there is a significant relationship between ICT and tax administration efficiency in Nigeria. James and Buseni (2013) their results revealed that the use of ICT increases innovation, productivity, efficient practices and improves the overall performance of the public sector. Similarly, Edmead, N., Ngwu, C., Oqua, B. 1., & Pichel, F (2013), found the use of computers and other electronic gadgets enhances service delivery, and increases administration efficiency of the government business. Furthermore, they added that customers believe that the modern system can restore confidence and trust as well as transparency. With the expectations to highlight the key importance of the use of ICT for administrative purposes, one of the leading objectives of the study is empirically analyze the association between the ICT and tax administration of Libya.

### 2.6 Training and Tax Administration Efficiency

Ngirwa (2009), defined training as a learning process in which employees acquire knowledge, skills, experience and attitudes that they need in order to perform their job better for the achievements of their organizational goals. It is the bridge between job requirements and employee present specifications. A study conducted by Barrett and O'Connell (2001) on the sales enterprises in Ireland, showed a statistically significant relationship between productivity and training. Likewise training has a great impact on productivity growth. Previously a number of studies on have been conducted on the subject of employees' training in the United States, exploring that staff training can enhance productivity (Bishop, 1994).

A study conducted by Sarquis and Arbache (2002) showed that by updating the skills of the employees of a public service organization reveals that the productivity in terms of providing services to the customers can be increased. The same study found that untrained users took more than six times as compared to trained users to accomplish tasks. Sarquis study, proposed that trained staff of public dealing organizations like tax administration would accomplish their tasks efficiently in given time which eventually would lead company not to hire more staff for overtime shifts. Training plays a vital role in the workers' productivity. It is empirically analyzed that the staff training improve productivity in workers and organizational administration (Bishop, 1994). Brown (2001) highlights the importance of education and training in building more efficient and effective organization.

Furthermore, it also externally effects the company overall productivity (Sarquis & Arbache, 2002). Lynch and Black (1995), in their detailed report on the importance of training for employees stated that by increasing 10 % of staff education and training the effect in service sector and operational sector will increase productivity by 5.9 % and 4.9 % respectively.

Bishop (1994) analyzed that the employers who provide training to their employees get better productivity by 16%. However, Zanzibar (2014) noted that there is a strong positive relationship between training and employee performance in public sector organization. In conclusion, training, making the workforce more efficient and confident in their job, has been playing a vital role. It is evident from the literature that the developed countries of the developed organizations or institutions pay due attention to provide the necessary professional training to keep them strong technically, morally, legally and ethically. In the perspective of tax administration of Libya, this study aims to investigate the link between training and the tax administration efficiency.

### 2.7 Leadership Style and Tax Administration Efficiency

According to Howell, Hall-Merenda and Kathryn (1999), there are two contradictory perspectives on leadership in organizations. While followed in the theories on transactional and transformational leadership (Wright & Pandey, 2010), first perspective explains that organizational heads focus and endeavour to describe performance by looking into the specific actions leadership acquire themselves, and by associating those actions directly to the consequences. The second viewpoint on leadership is a relationship-based approach that investigates the conduct of leaders to encourage their employees. Most recent research has confronted the conventional top-down paradigm and contended that leadership is a shared course of action among individuals and networks of communities (Fernandez, Cho, & Perry,2010).

According to Fletcher and Kaufer (2003), leadership exists at various levels and relies on social synergy being a relational and collective practice. While exploring the leadership using a relation-based perspective, it examines the way leaders proposes their employees with

opportunities to corroborate and explain their actions to relevant shareholders. Ultimately it looks at the scale employees recognize that their administrators help them (as employees) to notify other stakeholders regarding the actions taken by organizations. Primarily, those employees fulfil the tasks assigned by the management across organizations (Carson, Tesluk, & Marrone, 2007). Leadership developments are carried out in the perspective of joint group memberships, where leaders, as group members ask their employees to work collectively and not as an individual. Following the aforementioned approach, leaders ability to deal with the employees as group members, plays a vital role towards leadership effectiveness. It further explores that when managers give confidence to their employees, more productivity and loyalty is observed (Knippenberg & Hogg, 2003). This research focuses on the second perspective of the leadership style. There are many researchers who examined the leadership topic especially on the discipline in the public management (Fernandez, 2005; Kim, 2002; Wright & Pandey, 2010).

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Moreover, the public management literature is more importance on research rather than psychology and business management (Trottier & Wart, 2008). According to Hansen and Lein (2010) the subject of leadership theory becomes more important, if compared with another style of knowledge in public management research. Recently, literature review on administrative leadership by Wart (2013) reveals that there is a huge progress. Also, he observes that the internal conflict leads to sharp problem in a higher level of administration efficiency of public organizations or agencies may be enhanced by inter-connecting three factors of intrinsic reward, mission and public services. The public employees would struggle more in accomplishing their job level objectives if they conceive their own jobs as significant in achieving organizational goals and objectives that can render betterment to the whole society (Wrigh, Moynihan, & Pandey, 2012). Even through there is no published study on

the relationship between leadership style and tax administration efficiency, the relationship should be similar to the one that exists in any public management area because tax administration is a part of public administration.

Leadership, as a guide to the employees and a source of inspiration, bears a big responsibility in the organizational performance. Likewise, the leaders or guide may lead the organizations in the right direction or in the wrong direction. While being responsible to implement the organizational policies in the right way, it can set a good example for the employees or it may come up as an unmotivated and unresponsive. Considering it as one of the key factors behind the poor performance of tax department in Libya as mention in previous chapter, this study aims to investigate the relationship between the leadership style and tax administration efficiency.

### 2.8 Underpinning Theories

# The literature defines performance based on how it is measured. Based on the belief that resources are never limitless, the concept of three Es' (economy, efficiency and effectiveness) has emerged and they are widely regarded as fundamental objectives for defining and measuring performance specifically in public sector organization (Hatry, 1999, Leithe, 1997). The relationship between the concept of economy, efficiency and effectiveness and

their roles in measuring performance is appropriately described by Wanna et al. (1992, p.11)

The concept of efficiency received among widespread acceptance than economy. Efficiency in generally applied at the operational or program levels because the ratio between inputs and outputs cannot often be more easily identified at those levels (Hayes, 1988). For the purpose

of this study, two theories are the most relevant to tax administration efficiency. There are these theories are goal-setting theory and control theory.

Buchner (2007) also identified these two theories underpinning performance of un organization. The goal theory emphasises on setting and agreeing objectives against which performance can be measured and managed. It supports the agreement of the objectives feedback and review aspects of performance management. On the other hand, the control theory focuses attention on feedback as a means of shaping behavior. As people receive feedback on their behavior, they appreciate the discrepancy between what they are doing and what they are expected to do and take corrective action to overcome it. These two main theories are important in this study to ensure high performance of a tax administration efficiency.

### 2.9 Summary of The Chapter

This chapter reviews the related literature based on autonomy, motivation, ICT, training, leadership style perspective and the impact on tax administration efficiency. The review of literature on tax administration efficiency has an effect on the contribution to further understanding of this study. Thus, this present study is going to add knowledge in recognizing the elements that impact tax administration efficiency of Libyan taxpayers.

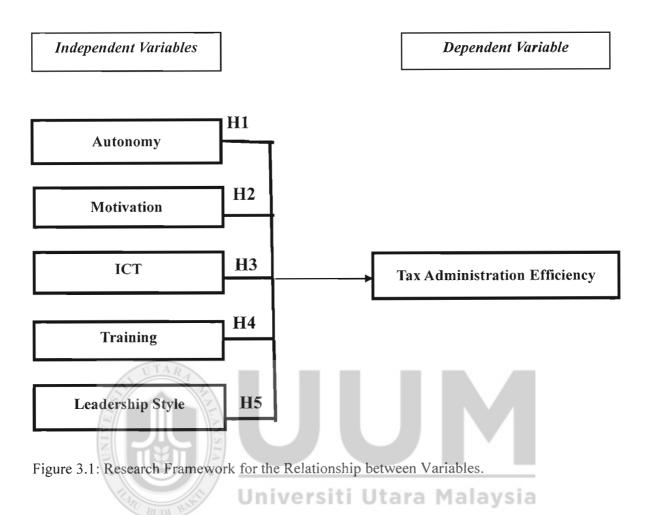
# CHAPTER THREE RESEARCH METHODOLOGY

### 3.1 Introduction

This chapter explains the methods and procedures that the study used to derive its data. The chapter specifically consists of conceptual framework, hypotheses development, research design, survey method, data collection method, population and sample size, data analysis, questionnaire design, pilot test, and chapter summary.

### 3.2 Conceptual Framework and Hypotheses Development

This study is about the tax administration efficiency and its relationship with autonomy, motivation, ICT, training and leadership style in the perspective of Libya tax employees. Moreover, autonomy, motivation, ICT, training and leadership style are studied as independent variables and the tax administration efficiency as an outcome variable. The framework, further demonstrate about the independent and dependent variables.



3.2.1 Dependent Variable

The dependent variable in this study is tax administration efficiency. Abiola and Asiweh (2012) defined tax administration as an organization of government that are vested with the responsibility of policy implementation in the country. As observed by the OECD (2011), tax administration efficiency reduces cost, while providing better services to citizens and businesses in the USA. In this study tax administration efficiency measured by adopting the measurement used by Abiola &Asiweh (2012). A good tax administration is an essential factor in the development of countries, since it encourages investors and capitalists, lessen poverty and amplify growth in all sectors. Importantly, it facilitates governments in increasing revenue generation applying lower tax rates (Rahman, 2009). The weakness in tax

administration efficiency has a negative effect on the economy of Libya as it creates problems in collecting sufficient revenue for the development of the country; hence, the government can only offer poor quality services for their citizen .This shows the severity of the weakness of tax administration efficiency in Libya that has necessitated this study.

#### 3.2.2 Independent Variables

#### 3.2.2.1 Autonomy and Tax Administration Efficiency

The goal of any organization is not only to survive, but also to sustain its existence by improving performance (Arslan & Staub 2013). Autonomy refers to the extent to which government departments or agencies are able to operate independently in terms of the law and status, human resources, administrative practices and budgeting (Aboila & Asiweh, 2012). There are numerous studies exploring the relationship between autonomy and tax administration efficiency. For instance, studies supported by Casasnovas et al. (2009), McDaid et al. (2009) Gammelgaard et al. (2012), Mikesell (2003) and Taliercio (2004) found Universiti Utara Malavsia a great positive relationship between autonomy and tax administration efficiency. Looking at the studies in detail, it is obtained that autonomy has huge potential to enable tax administration making easier policy making and satisfaction of needs for a consumer from public services (Casasnovas et al.; (2009). However, Onyeukwu (2010) argues that the autonomy of tax administration has brought about multiplicity of tax burden to the taxpayer and the businesses companies are to pay different taxes by the provincial or state officials. Therefore, these contradictory findings about the role of autonomy in organizational performance suggest that there is more need to study the role of autonomy in organizational performance. On the basis of the above discussion this study hypothesizes that:

*H1*: *There is a positive relationship between autonomy and tax administration efficiency.* 

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#### **3.2.2.2 Motivation and Tax Administration Efficiency**

Antomioni (1999) defined motivation as the amount of effort put in the place of work by employees that depends on the levels to which they feel their motivational needs would be satisfied by their employer. There are many studies found exploring the positive relationship between the motivation and organizational administration efficiency. For instance, studies supported by Solomon et al. (2012), Manzoor (2012), Dobre (2013) Fisher & Hostland (2002) and Belfield and Marsden (2010) findings show that, there is a positive relationship between motivation and the efficiency of organizational administration. Furthermore, motivation enhances employee productivity that positively affects organizational performance (Solomon et al. 2012). On the basis of the above discussion, this study hypothesizes that:

H2: There is positive relationship between motivation and tax administration efficiency.

### 3.2.2.3 Information and Communication Technology (ICT) and Tax Administration Efficiency

Information and communication technology (ICT) according to Shagari (2014) is a tool that supports the work of government institutions with the objectives of providing public services and information in a convenient, fast and cost effective. In a public sector regime, James (2013) revealed that the use of ICT increases innovation, productivity, and efficient practices and improves the overall p erformance of the public sector. Edmead et al. (2013) found the use of computers and other electronic gadgets enhances service delivery, and increases administration efficiency of the government business. Shagari (2015) examines the level of efficiency of tax administration in Nigeria as well as the association between ICT with tax administration efficiency. Explicitly, the results suggest that in order to enhance the

efficiency of tax administration, the tax authority should focus on investing in ICT. On the basis of the above discussion, this study hypothesizes that:

*H3:* There is a positive relationship between ICT and tax administration efficiency.

#### 3.2.2.4 Training and Tax Administration Efficiency

According to DeCenzo & Robbins (2000), training is a learning practice that revolutionizes individuals with enduring and everlasting change to develop their abilities to carry out their responsibilities in a better way. To fulfill the objective of training within organizations, it is important to design training sessions those may help employees or learners to improve skills, knowledge, attitudes, and social behavior. Ultimately, enrichment in employees' social behavior, attitudes, knowledge and skills will help organization to achieve their goal and to uplift team spirit and better working environment for all stakeholders. Employees training and organizational efficiency have been a subject of continual discussion among scholars for long time. Numerous studies (Aguinis & Kraiger, 2010; Davies, Taylor, & Savery, 2001; Lynch & Black, 1995; Bishop, 1994) talk about the positive relationship between training and the efficiency of different administrative organizations. On the basis of the importance of training in the perspective of tax administration, this study hypothesizes that:

*H4: There is a positive relationship between training and tax administration efficiency.* 

#### 3.2.2.5 Leadership Style and Tax Administration Efficiency

The goal of any organization is not only to survive, but also to sustain its existence by improving performance (Arslan & Staub 2013). Prior literature suggests that role of leadership is critically important for achieving the performance of organizations (e.g. Boal & Hooijberg 2000; Peterson, Smith, Martorana & Owens 2003). However, the findings of prior studies about the role of leadership in increasing organizational performance are mixed.

Some studies (e.g. Finkelstein & Hambrick, 1996; Katz & Kahn, 1978; Peterson, Smith, Martorana, & Owens 2003) suggest that the role of leadership is critically important for an organization to achieve a high level of performance. However, some other studies (e.g. Pfeffer 1977; Meindl, Ehrlich & Dukerich 1985) suggest that role of leadership is not so important in achieving the organizational performance. Therefore, these contradictory findings about the role of leadership in organizational performance suggest that there is more need to study the role of leadership in organizational performance. On the basis of the above discussion, this study hypothesizes that:

*H5*: There is a positive relationship between leadership style and tax administration efficiency.

Table 3.1 provides the summary of the hypotheses developed based on the five independent variables which includes; autonomy, motivation, ICT, training and leadership style and their relationship with the dependent variable, tax administration efficiency. Table 3.1 gives the brief summary of the developed hypotheses and the variables used in the study.

<b>N</b> 0	Independent Variable	The Hypotheses
1	Autonomy	There is a positive relationship between autonomy and tax
		administration efficiency.
2	Motivation	There is a positive relationship between motivation and tax
		administration efficiency.
3	ICT	There is a positive relationship between ICT and tax
		administration efficiency.
4	Training	There is a positive relationship between training and tax
		administration efficiency.
5	Leadership	There is a positive relationship between leadership style and tax
	Style	administration efficiency.

**Table 3.1:** Summary of The Hypotheses Developed in this Study.

#### 3.3 Research Design

This study adopts quantitative research approach to assess the structural relationships between autonomy, motivation, ICT, training, leadership style and tax administration efficiency. SmartPLS software was used in this study to test several hypotheses. A questionnaire was designed consisting of 31 questions divided into two categories. Section A consists of the demographic i.e, information age, gender, marital status, education level, position income level and years of experience of the respondents, while section **B** comprises questions regarding the independent and dependent variables under study. Both sections were duly adapted and modified from previous studies by Abiola &Asiweh (2012); Verscheure (2007); Wright (2004) and Upadhyaya (2011), Bishop (1994) and Ogbonna &Harris (2000).

#### 3.3.1 Survey Method

Questionnaires were distributed to collect the data from the respondents, by using a survey method. The researcher use survey method because a survey method has several advantages

as follows; 1) the scope and coverage are wider and more information can be obtained;2) survey research is less expensive than laboratory and feld expenments but potentially the amount of information is greater and ;3) the researchers undertake sample from which the population was initially selected. The nature and design of the questionnaire were based on the studies that have been carried out previously. The questionnaire design of this study has close-ended questions. The questions were adopted from previous studies (Abiola &Asiweh, 2012; Verscheure, 2007; Wright, 2004; Upadhyaya, 2011). The questionnaire (Appendix A) consists of two sections. Section A of the survey is on the demographic characteristics of the respondents. Section B relates to the information concerning the independent and dependent variables. In total, there are 24 items. The questionnaires were distributed to 250 tax employees in the Tripoli city.

#### 3.3.2 Data Collection Method

A survey is a way to attain self-reporting information about the assertiveness, ideas, opinions and behavior and other characters of the population (Sekaran, 2010). This study has collected data through a survey using a cross-sectional method. All independent and dependent variables measured by 4 items. Five variables, namely autonomy, motivation, ICT, training, leadership style and tax administration efficiency are measured by using a five-point Likert scale. Where the lowest scale represent strongly disagree and the highest scale represent strongly agree. This research use online questionnaire survey to collect data from tax administration as this approach has many advantages. Online survey approach offers anonymity, convenience, data completeness, data accuracy, cost saving and time. The questionnaires were sent via web survey using Google driver and survey-monkey. According to Wright (2005), these services gives advantages of such as access to individuals in far-away locations, the ability to reach those respondents that are difficult to contact, and the convenience of having automated data collection which reduces researcher's time and effort. 250 questionnaires were distributed to the respondents.

#### 3.3.3 Population and Sample Size

Due to unavailability of published data on the whole number of tax employees in Libya, this study is only limited to tax administration headquarter in Tripoli city where the number of total employees in the headquarter is 250 employees. Zikmund (2003), in the situation where the units of the population are limited, the researchers can collect data from the whole population rather than going for sampling. Hence, this study has chosen all the 250 tax employees as the respondents.

#### 3.3.4 Data Analysis

This study used SmartPLS software version 2.0 to analyze its data. The data in this study was analyzed using a multiple regression model after conducting the reliability test, multicollinearity analysis, descriptive statistics and Pearson correlation. After obtaining the results of reliability and validity for each construct, examining the structural model results is necessary in order to test the hypothesis. There are four steps of procedures in examining the structural model results; (1) examine the structural model for collinearity issues; (2) followed by examining the level of  $R^2$  values; (3) assessment of f2 effect size; and last but not least; (4) the significance of path coefficients.

#### 3.4 Questionnaire Design

This study aims to identify the factors that contribute to tax administration efficiency in Libya. To collect complete data, a questionnaire was developed. The questionnaire has three sections to be filled by the respondents i.e. officials working with the taxation department in

Tripoli, Libya. The measures used were adapted from past studies and amended to suit the present study. These measurements are explained according to the following sections:

#### SECTION A

To identify the profile of the respondents in this study, ordinal measures have been used. Questions have been asked about the age, gender, marital status, education level, position, income level and years of experience. All these were measured using multiple choice questions.

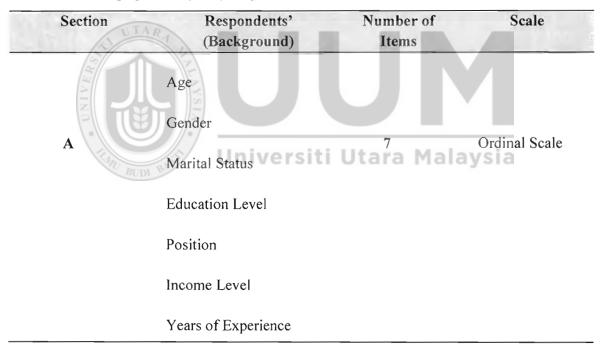


 Table 3.2: Demographic Profile of Respondents

#### **SECTION B:**

This section includes the questions that are related to the dependent and independent variables. There are 4 questions for the dependent variables and 20 questions for the independent variables A Likert Scale of five points (1= strongly disagree, 2= disagree, 3= neutral, 4= agree, 5= strongly agree) was used.

**Table 3.3:** Measurement of Tax Administration Efficiency

•

Variable	Items/Statement						
	In my view our tax system has an efficient tax collection process.						
Tax	Income generated from tax revenue by my organization has bee impressive due to efficient tax administration.						
Administration Efficiency	My organization has adequate infrastructures for efficient ta administration.						
	My organization has well-trained staff for efficient tax administration.						
apted from Abiol	a and Asiweh (2012)						
ALU	a and Asiweh (2012) ment of Autonomy Items/Statement						
ble 3.4: Measure	ement of Autonomy Items/Statement						
ble 3.4: Measure	The Board of Internal Revenue has autonomy in recruitment an dismissal of staff.						
ble 3.4: Measure Variable	Items/Statement The Board of Internal Revenue has autonomy in recruitment an dismissal of staff. The Board of Internal Revenue has autonomy in budget preparation an						
ble 3.4: Measure Variable	The Board of Internal Revenue has autonomy in recruitment an dismissal of staff. The Board of Internal Revenue has autonomy in budget preparation an implementation.						

Adapted from Abiola and Asiweh (2012) and Verscheure (2007)

 Table 3.5: Measurement of Motivation

**`** 

Variable	Items/Statement					
	l have been motivated by my organization to put my best effort my					
	job done.					
	I have been remunerated for staying beyond the working hours to					
Motivation	finish in my daily routine task.					
Monvation	Employees in my organization work as hard as employees in other					
	organization with similar remuneration.					
	I have been motivated by my organization to do extra work for my					
	job that isn't normally expected of me.					
adapted from Wrig						
Adapted from Wrig Sable 3.6: Measure	ht (2004)					
a l	ht (2004)					
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Table 3.6: Measure Variable	ht (2004) ment of ICT Items/Statement The Board provides me with useful ICT trainings in the daily workin procedures. The Board provides online facility on my desk. The Board regularly maintained our ICT infrastructures (digita					

Adapted from Upadhyaya (2011)

 Table 3.7: Measurement of Training

`

Variable	Items/Statement				
	Training procedure is effective for employees in Libyan taxation				
	department.				
	Libyan taxation department considers training as a part of				
Training	organizational strategy.				
	Libyan taxation department training enables employees to be more productive.				
	Libyan taxation department training activities help the organization				
	in identifying, analyzing and planning changes needed.				
Adapted from Bishop	p (1994)				
A	p (1994) ment of Leadership Style				
Table 3.8: Measurer Variable	ment of Leadership Style Items/Statement Universiti Utara Malaysia				
Table 3.8: Measurer	ment of Leadership Style Items/Statement Universiti Utara Malaysia				
Table 3.8: Measurer Variable	ment of Leadership Style Items/Statement Universiti Utara Malaysia				
Table 3.8: Measurer Variable	nent of Leadership Style Items/Statement Universit Universit Before making decisions, the head of my department				
Table 3.8: Measurer Variable	nent of Leadership Style Items/Statement Universit Before making decisions, the head of my department considers what her/his subordinates have to say.				
Table 3.8: Measurer Variable	Items/Statement University of Leadership Style Items/Statement University of the statement Before making decisions, the head of my department considers what her/his subordinates have to say. Before taking action, the head of my department consults with				
Table 3.8: Measurer Variable	Items/Statement Before making decisions, the head of my department considers what her/his subordinates have to say. Before taking action, the head of my department consults with subordinates.				

Adapted from Ogbonna and Harris (2000)

#### 3.5 Pilot Test

Pilot test is concerned with the stability and consistency of the measurement in order to access the goodness of a measure. It helps to determine how consistently it measures a specific perception. A sample of 30 questionnaires was distributed and duly completed by the target respondent's i.e tae tax officials working with the taxation department in Zliten city located east capital city of libya. The analysis as shown in Table 3.9 depicted that the reliability Cronbach's Alpha for all the variables are acceptable as they range from 0.673 to 0.929.

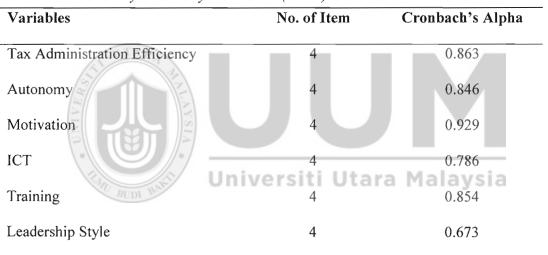


 Table 3.9: Pilot Study Reliability Test Result (N=30)

The result shows that the Cronbach's Alpha is more than 0.6 in the study which indicates that the questions are consistent and reliable in capturing the information from the respondent. According to Maslach, Jackson and Leiter (1986), the reliability analysis result will be accepted provided that the Cronbach's Alpha coefficient range is between 0.6 and 1.0 .Therefore, the questions are acceptable and no changes were made.

### 3.6 Chapter Summary

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Chapter three presents the proposed research framework for the current research. The hypotheses developed is based on the extensive literature. Also provided in this chapter, research design, survey method, data collection method, population and sample size, data analysis, questionnaire design, pilot test and chapter summary.



# CHAPTER FOUR DATA ANALYSIS AND RESULTS

#### 4.1 Introduction

The purpose of this study is to examine the relationship between autonomy, motivation, ICT, training, leadership style and tax administration efficiency. In the previous chapter, an explanation about how the methodology and data collections of this study carried out has been described. Thus, this chapter presents the results, analysis and findings from the data collected in order to meet up with the research objectives and relate with hypotheses that have been developed in this study.

Statistical analysis, such as reliability and construct validity testing were applied to answer the research questions and hypotheses. Firstly the results of the demographic profile of the respondents are described. Second, the presentation of the results of the statistical analysis of dependent (tax administration efficiency) and independent variables (autonomy, motivation, ICT, training and leadership style). Lastly, the core part of the results is the result of hypothesis testing which present correlation and regression analyses in order to determine the relationship between the independent variables on dependent variables. The chapter ended with a summary of the study relates to the findings.

#### 4.2 Response Rate

A total of 250 questionnaires were emailed of which 168 respondents answered and returned the questionnaire. Seven questionnaires were incomplete and as a result, rejected for analysis. Table 4.1 shows that out of 168 returned questionnaires, only 161 representing 64% were finally considered for the analysis, while a total of seven representing 3% incomplete questionnaires were rejected. The 161 out of 250 questionnaires were sufficient and a valid rate for the analysis because a rate of 30% and above can be considered as valid and acceptable in a cross-section study (Sekaran, 2003).

Questionnaire	Frequency	Percentage	
Total Questionnaires Emailed	250	100%	
Returned	168	67%	
Not Returned	82	33%	
Incomplete	7	3%	
Complete	161	64%	

 Table 4.1: Response Rate

#### 4.3 Demographic Profile of the Respondents

The Table 4.2 reveals that, 6.2 % of the respondents are between the ages of 20-30 years; 51.6 % are between the ages of 31-40 years; 35.4% are of the age group, 41-50 years; 5.6 % of the respondents represent the age group of 51-60 years; 1.2 % of the respondents are over the age of 60 years. There are 74% male respondents; and 26% of the respondents are female. In addition, among the respondents, 32.9 % are single; and 67.1% are married. In terms of the level of educational background, most employees have bachelor's degree, 53.8%, diploma degree, 39.1% and master's degree, 6.8 %, whereas 1.2 percent are working as belongs to the top management and 9.3% are working as middle management and the 89.4% belongs to the supporting management. In terms of monthly income, 16.8% earn between LD 600; 46% respondents belong to income group of LD 601 to 800; 6.8 % earn between LD 8001-1000; and 30.4% of the respondents earn LD 1000 and above. Regarding job experience, 43 % has working experience of 2-4 years and 19.9% of the total respondents have experience of 5-7 years with the tax department in Tripoli, 36.6% of the total

respondents have experience above 7years. Overall, all of this demography analysis has been simply illustrated in Table 4.2 below:

Description	Frequency	Percent
AGE		
20-30	10	6.2%
31 - 40	83	51.6%
41 - 50	57	35.4%
51 - 60	9	5.6%
Above 60 Years	2	1.2%
Total	161	100%
GENDER		1.41.5.5.6.660
Male	119	74%
Female	42	26%
Total	161	100%
MARITAL STATUS		
Single	53	32.9%
Married	108	67.1%
Total	161	100%
EDUCATION		
Secondary School Certificate	5	3.1%
Diploma Certificate	63	39.1%
Degree B.sc/Higher National Diploma		
Unive	rsiti Uta <sup>82</sup> a Mal	aysia
Master degree/Ph. D	11	6.8%
Total	161	100%
POSITION		
Top Management	2	1.2%
Middle Management	15	9.3%
Supporting Management	144	89.4
Total	161	100%
INCOME (monthly)		2.5.2
Less Than LYD 600	27	16.8%
LYD 601 – LYD 800	74	46.0%
LYD 801 - LYD1000	11	6.8%
Above LYD 1000	49	30.4%
Total	161	100%
EXPERIENCE		
One Year or Less	0	00.0%
2-4 Years	70	43.5%
5-7 Years	32	19.9%
More Than 7 Years	59	36.6%
Total	161	100%

 Table 4.2: Demographic Profile of the Respondent

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A further analysis on demographic profile of the respondents was carried out cross tabulations on the demographic items were conducted .The result of cross tabulation in this study as shown in Appendix B.

#### 4.4 Normality Test

PLS SEM is used for more reliable prediction. PLS path modelling permits evaluation of non-normal data (Chin, 1998), is one of the concerns in social science studies (Osborne, 2010). It (PLS SEM) provides more considerable and credible results, as compare to SPSS (Bollen, 1989).Hair et al. (2012) proposes normality test on the data obtained, whereas numerous researchers like, Reinartz et al. (2009) and Wetzels et al. (2009) state that PLS-SEM has a capability to execute very non-normal data to obtain a correct model estimations, the assumption may not be fully established. Following the suggestions of Tabachnick et al., 2007, this study used a graphical method to check for the normality of the data collected. In case of limited population, it is important and supportive to observe the shape of the distribution graphically (Figure 4.1).The residuals predicted scatter plot show that the relationship between the five independent variables, i.e., autonomy, motivation, ICT, training and leadership style and dependent variable, i.e., tax administration efficiency, attain the threshold of linearity and normality.

Figure 4.1 Histogram of Dependent Variable:

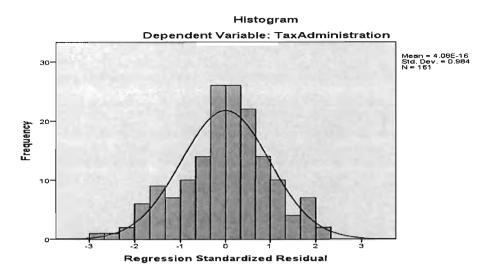
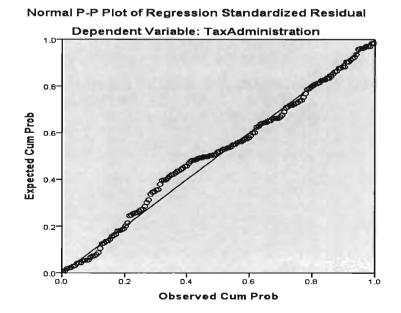


Figure 4.1 shows the normal plot of regression standardized residuals for independent variables are relatively normal distributions.



Figure 4.2 Normal P-P Plot of Regression Standardized Residual



The graph of Normal Probability Plot of our model is depicted in Figure 4-2. It advocates that the plot is close to a straight line, which is the evidence of no violation of Normality of errors assumption (Mendenhall &Sincich, 1993).

#### 4.5 Descriptive Statistic for the Independent and Dependent Variables

This section highlights the mean and standard deviation score of the variables of this study. Five variables, namely autonomy, motivation, ICT, training, leadership style and tax administration efficiency are measured by using a five-point Likert scale.

10	TAR		Std.				
Variables	N	Mean	Deviation	Skewness		Kurtosis	
variables	Statisti				Std.		Std.
E C	c	Statistic	Statistic	Statistic	Error	Statistic	Error
Autonomy	161	3.6056	.81185	257	.191	373	.380
Motivation	161	4.0280	.62873	336	.191	.346	.380
ICT	161	4.6398	.46506	-1.347	.191	1.299	.380
Training	161	4.6848	.48454	-1.795	.191	3.514	.380
L-Ship Style	161	3.2873	.74278	024	.191	301	.380
Tax Administration	161	3.6972	.71009	.006	.191	540	.380
Valid N	161						

 Table 4.3: Descriptive Statistics

Note: Skewness <=+3>=-3, Kurtosis<=+7>=-7

Table 4.3 shows that autonomy, motivation, ICT, training, leadership style and tax administration efficiency have a mean score of 3.6056, 4.0280, 4.6398, 4.6848, 3.2873 and 3.6972, respectively. The standard deviation is 0.81185 for autonomy; 0.62873 for motivation; 0.46506 for ICT; 0.48454 for training; 0.74278 for leadership style; and 0.71009 for tax administration efficiency. Based on this result, training has the highest mean score of 4.6848 above the remaining variables followed by ICT, motivation, tax administration efficiency and autonomy at 3.6056. It is relatively greater than leadership style with a 3.2873

mean value. Therefore, this result provides clear evidence that the majority the respondents strong agreement with the items.

#### 4.6 Construct Validity

Construct validity is utilized in order to test how well the results obtained (Sekaran & Bougie, 2010). The test can be examined through two subcategories of construct validity, namely convergent and discriminant validity (Hair, Samuoel, Page, & Money, 2010).

#### 4.6.1 Convergent Validity

Convergent Validity can be defined as the degree in which each construct is measured andtheoretically should be linked to each other, in fact, are observed to be related to each other. According to Hair et. Al (2010), convergent validity can be examined through factor loadings (refer to Appendix B), reliability analysis, composite reliability and Average Variance Extracted (AVE). By analyzing the convergent validity, it can ensure that the variables show a relationship well with each other within their parent the outcome variable.

#### 4.6.1.1 Reliability Analysis

Reliability analysis is performed in order to find internal consistency of the items. Cronbachs alpha is the most widely used in order to test the reliability level. According to Maslach, Jackson and Leiter (1986), the reliability analysis result will be accepted provided that the Cronbach's Alpha coefficient range is between 0.6 and 1.0. Thus, in this study, the Cronbach's Alpha that has been analyzed through Smart-PLS is described briefly in the Table 4.4 below:

Variables	Cronbach's Alpha
Tax Administration Efficiency	0.858
Autonomy	0.733
Motivation	0.920
ICT	0.601
Training	0.910
Leadership Style	0.761

 Table 4.4: Cronbach's Alpha (No=161)

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Table 4.4 shows that Cronbach's Alpha of tax administration efficiency, autonomy, motivation, ICT, training, and leadership style, are 0.858, 0.733, 0.920, 0.601, 0.910 and 0.761 respectively. The result shows that there are consistency, reliability and stability in the answers provided by the respondents. Overall, it can be concluded that of the data attained are above 0.60, showing an acceptable level of data reliability.

#### 4.6.1.2 Composite Reliability

This study also assessed composite reliability of the variables. Table 4.5 describes briefly these composite reliabilities.

Variables	Composite Reliability
Tax Administration Efficiency	0.903
Autonomy	0.820
Motivation	0.944
ICT	0.778
Training	0.937
Leadership Style	0.848
Note: Composite reliability >.70	

 Table 4.5: Composite Reliability

In composite reliability, the acceptable value of composite reliability test can be seen if it shows the value of 0.70 or greater (Fornell & Larcker, 1981). Thus, this study attached the output in the Table 4.5. From the Table above, we can see that it have great value of composite reliability. Since each of variables has value over than 0.778. Overall, it has been proved that there is slight difference between composite reliability and reliability analysis. Last but not least, the results from both of reliabilities can be concluded that all the items are reliable.

#### 4.6.1.3 Average Variance Extracted (AVE)

Average Variance Extracted (AVE) measures the level of variance captured by a construct versus the level due to measurement error. Acceptable level for average variance extracted (AVE) more than 0.5 for adequate convergent validity, meaning that a latent variable is able to explain more than half of the variance of its indicators on average (Fornell and Larcker 1981). The results of AVE in this study are attached in the Table 4.6 below.

Construct	Average Variance Extracted (AVE)		
Tax Administration Efficiency	0.701		
Autonomy	0.616		
Motivation	0.808		
ICT	0.546		
Training	0.788		
Leadership Style	0.583		
Note: AVE > .50			

**Table 4.6:** Average Variance Extracted (AVE)

Table 4.6 above have shown the value of Average Variance Extracted (AVE) of this study. Through the table, it can be seen clearly that autonomy, motivation, ICT, training, leadership style and tax administration efficiency correlate well with each other within their parent factor. However, average variance extracted (AVE) values are between 0.546 and 0.808, higher than the standard 0.5. Comply with the aforementioned scholar convergent validity of each dimension inspection standards; the various aspects of this study have convergent validity.

#### 4.6.2 Discriminant Validity

The discriminant validity is used in order to ensure that a reflective variable has the strongest relationships with its own indicators, or it simply means to analyze the relationships between latent variables (MacKenzie, Podsakoff, & Podsakoff, 2011). Discriminant validity is also simply defined by Rani (2014) as the degree to which items differentiate dissimilar constructs or measure distinct concepts. Therefore, the Fornell-Larcker criterion (please refer to Appendix B) and examination of cross-loadings are the dominant approaches for evaluating the discriminant validity.

According to Fornell and Larcker's (1981) index of the reliability of a variable must be greater than 0.70 (Netemeyer et al. 2003). However, the values in cross loadings were same with outer loadings value, the difference is in cross loadings it compares with correlation among constructs. Cross loadings offer another check for discriminant validity. If an indicator has a higher correlation with another latent variable than with its respective latent variable, the appropriateness of the model should be reconsidered. (Henseler et al., 2009). Concisely, the result of evaluating the discriminant validity of this study thru Fornell-Larcker Criterion (please refer to Appendix A) and Cross Loadings as shown in Table 4.7.



Construct	Autonomy	ICT	L. Style	Motivation	Tax Admin. Efficiency	Training
AUTO1	0.510	0.333	-0.155	0.068	-0.015	0.150
AUTO2	0.954	0.278	-0.070	-0.082	-0.105	0.073
AUTO4	0.825	0.239	-0.150	0.009	-0.051	0.019
ICT1	0.178	0.564	-0.175	0.055	0.070	0.067
ICT2	0.274	0.859	0.006	0.121	0.172	0.157
ICT4	0.223	0.762	-0.050	0.076	0.127	0.202
LS1	-0.091	-0.018	0.699	0.224	0.241	-0.093
LS2	-0.188	-0.074	0.766	0.354	0.311	0.120
LS3	-0.071	-0.119	0.807	0.362	0.314	0.003
LS4	0.006	0.039	0.776	0.292	0.279	-0.111
MOT1	-0.059	0.133	0.402	0.897	0.626	0.133
MOT2	-0.032	0.092	0.266	0.863	0.617	0.120
· MOT3	-0.044	0.070	0.390	0.942	0.655	0.111
MOT4	-0.035	0.142	0.416	0.892	0.599	0.190
TAE1	-0.077	0.118	0.277	0.501 ar	0.829	0.236
TAE2	-0.068	0.191	0.252	0.520	0.807	0.368
TAE3	-0.085	0.202	0.276	0.580	0.871	0.212
TAE4	-0.078	0.093	0.437	0.699	0.841	0.157
TR1	0.054	0.141	-0.035	0.114	0.253	0.908
TR2	0.001	0.136	-0.026	0.169	0.262	0.889
TR3	0.094	0.220	0.006	0.119	0.237	0.894
TR4	0.113	0.223	-0.004	0.139	0.259	0.859

Table 4.7: Cross Loadings

Table 4.7 shows that each question load higher on its own latent constructs than on the others. According to Hair (2011), loading low than 0.5 can be deleted the question to get a good measurement model. Thus, analysis of discriminant validity shows that each indicator is well correlated with the construct it is connected to.

#### 4.7 Structural Model Results

In Smart-PLS, after obtaining the results of reliability and validity for each construct, examining the structural model results is necessary in order to test the hypothesis. There are four steps of procedures in examining the structural model results; (1) examine the structural model for collinearity issues; (2) followed by examining the level of  $R^2$  values; (3) assessment of f2 effect size; and last but not least; (4) the significance of path coefficients.

#### 4.7.1 Structural Model for Collinearity Issues

To detect multicollinearity, two methods were used in the present study. First, the correlation matrix of the exogenous latent constructs was examined. According to Hair et al. (2010), a correlation coefficient of 0.90 and above indicates multicollinearity between exogenous latent constructs. Table 4.8 shows the correlation matrix between variables in the current study.

	Tax Admin	Autonomy	ICT	Leadership	Motivation	Training
Tax admin	1					
Autonomy	.692**	1				
ICT	.224**	.153	1			
Leadership	.373**	.402**	072	1		
Motivation	.156*	.185*	.300**	057	1	
Training	.282**	.153	.632**	025	.303**	1

 Table 4.8: Pearson's Correlation Matrix of Model

**Note:** \*\* Correlation is significant at the 0.01 level (1-tailed); \*Correlation is significant at the 0.05 level (1-tailed).

Table 4.8 shows that the correlation between autonomy and tax administration efficiency is positive and significant with a correlation value of 0.692 signifying (69.2%). Meanwhile, ICT with tax administration efficiency shows positive correlation of 0.224 (22.4%),

significant at only 1% level. Leadership style and tax administration efficiency have a positively significant correlation because the value is 0.373 (37.3%). Motivation's correlation with tax administration efficiency is positive and significant with a correlation of 0.156 (15.6%) at 5% level of significance. Training's correlation with tax administration efficiency is also positive at 0.282 (28.2%) and is significant. However, the correlation between ICT and autonomy is positive and with a correlation value of 0.153 signifying (15.3%) non-significance. In addition, leadership style with autonomy shows positive correlation of 0.402 (40.2%), significant at only 1% level. Motivation and autonomy have a positively significant correlation because the value is 0.185 (18.5%).

Training's correlation with autonomy is positive and insignificant with a correlation of 0.153 (15.3%) at 5% level of significant. The correlation between leadership style and ICT is negative and it is insignificant with a value of -0.072 representing 7.2% level of significance. Motivation's correlation with ICT is positive at 0.300 (30%), significant at only 1% level. However, the relationship between training and ICT is positive and significant with a correlation of 0.632 (63.2%) %) at 1% level of significance. Motivation correlation with leadership style is negative and it is insignificant with a value of -0.057 representing 5.7% level of significance. Similarity, training has a negative relationship with leadership style at a level of -0.025 (2.5%) at 5% level of significance. Finally, training has a positive correlation with motivation, with a correlation value of 0.303 (30.3%) at 1% significance level.

From discussed above, it can be seen that four variables have positive and significant correlation with tax administration efficiency at 1% and one variable has positive and significant correlation at 5% level of significance. From the above analysis, the current study

has no multicollinearity issues since there is no statistically strong correlation more than 90% between the studied variables Hair et al. (2010).

In the examination of correlation matrix for the exogenous latent constructs, variance inflated factor (VIF) were examined to detect multicollinearity problem. Hair, Ringle and Sarstedt (2011) suggested that multicollinearity is a concern if VIF value is higher than 5 and tolerance value is less than 0.20. Table 4.9 shows the VIF values and tolerance values.

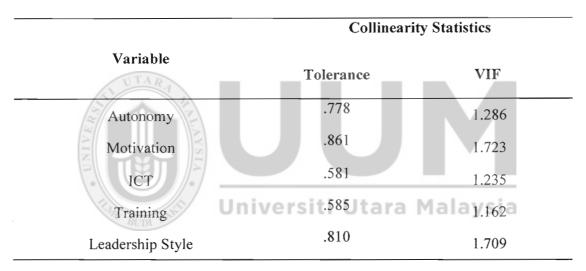


 Table 4.9: Tolerance and Variance Inflation Factors (VIF)

Table 4.9 indicates that multicollinearity did not exist among the exogenous latent constructs as all VIF values were less than 5, tolerance values exceeded 0.20 as suggested by Hair et al. (2011) .Thus, multicollinearity is not an issue in the present study.

#### 4.7.2 Level of Predictive Power R<sup>2</sup>

According to Hair et al. (2011), PLS-SEM provides R-squared ( $R^2$ ) value as an imperative standard for the assessment of structural model, also known as the coefficient of determination. Depending on the research framework, the acceptance values of R-Square varies (Hair et al., 2010). According to Falk et al. (1992), in the social science perspective,

however, recommends that 0.10 is the lowest acceptable values of R-Square. According to Chin (1998), 0.67, 0.33 and 0.19 are categorized as substantial, moderate and weak level of R-Square respectively. R-Squared value of the endogenous latent variable (tax administration efficiency) is 54 percent, as shown below in Table 4.10, which falls between the substantial and moderate, according to aforesaid criteria (Chin, 1998).

 Table 4.10: Variance Explained In the Endogenous Latent Variable

Latent Variable	Variance Explained (R <sup>2</sup> )	
Tax Administration Efficiency	54%	

Table 4.10 above shows  $R^2$  as 0.54 which indicates that the independent variables explain 54% changes in tax administration efficiency; while other variables outside the study scope accounted for 46%. Moreover, higher  $R^2$  reflects the relationship of the variables used in this study.

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# 4.7.3 Effect of F2 Size

Effect size defines the qualified effect of a particular exogenous latent variable on endogenous latent variable(s) by means of changes in the R-squared (Chin, 1998). It measures the improvement in R-squared of the latent variable connected to the path, relative to the latent variable's proportion of unexplained variance. According to Cohen (1988) values of 0.02, 0.15, and 0.35 can be interpreted as small, medium, and large effects at the structural level respectively. Table 4.11 presents the results of the effect size  $f^2$  of five hypotheses given above. Chin et al. (2003) highlighted the importance of  $f^2$  mentioning that even the smallest strength of  $f^2$  should be well thought-out because that can affect the criterion variable(s) in

their own ways. The result of f square on this study is analyzed and shown in the Table 4.11 below:

R-Square	Included	Excluded	f-Squared	Effect Size	
Autonomy	0.543	0.536	0.0153 None		
ICT	0.543	0.534	0.0197	None	
Leadership Style	0.543	0.529	0.0306	Small	
Motivation	0.543	0.264	0.6105	Large	
Training	0.543	0.516	0.0586	Small	

Table 4.11: Effect of f2 Size

As shown in Table 4.11 above, out of the five effect sizes checked, two bear none whereas the three constructs leadership style, motivation and training hold effect size as small, large and small respectively.

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# 4.7.4 Hypotheses, Significance of Path Coefficients and the Relevance of the Structural Model

In order to analyze the relevance of the structural model, the researcher examined the path loadings between constructs by using computed T-statistics. The significance of T-statistics is obtained after using 5000 bootstrap samples as recommended (Hair et al. 2011). Path analysis on the structural model is conducted in order to test the five hypotheses generated. The results of T-statistics, path coefficient (beta or  $\beta$ ), and the hypothesis is summarized in the Table 4.12 below:

Hypothesis	Path	Beta	Std. Error	T-Value	SIG
HI	Autonomy	-0.095	0.073	1.308	0.090
H2	Motivation	0.596	0.060	9.935	0.000
Н3	ICT	0.107	0.053	2.028	0.022
H4	Training	0.182	0.059	3.046	0.001
Н5	Leadership Style	0.132	0.064	2.081	0.017

#### Table 4.12: Hypothesis Testing

Note: one-tail

(T values > 1.645) \*\* p < 0.01, \* p < 0.05

Table 4.12 above, showing path co-efficient, t- values, and standard error and the decisions on either supported or not supported. The t-values, for the current study have been calculated by employing using 5000 re-sampling iterations in repetitive bootstrapping. According to Hair et al. (2012), the number of bootstrap samples should be high but must be at least equal to the number of valid observations in the data set. Further, in this study study161 observations are taken. Keeping in view the t-value, the decisions have been mentioned in the Table 4.13, given above. In the case of one-tailed, the absolute and significant value of T-statistic or t-value must be 1.645 or higher.

From Table 4.13, it can be seen clearly that, the outcome of multiple regressions shows that four out of the five variables are statistically significant; while one is not statistically significant. Firstly, considering the independent variable, autonomy in relative to tax administration efficiency, the results in current study shows that there is a negative relationship between autonomy and tax administration efficiency ( $\beta = -0.095$ , t = 1.308, and p = 0.090). Hypothesis two which states that there is a significant relationship between motivation and tax administration efficiency is supported statistically significant at 1% level of confidence ( $\beta = 0.596$ , t = 9.935, and p = 0.000). The study concludes that 1% increase in motivational rate lead to increase in tax administration efficiency by 0.596 % and vice versa.

There is a significant relationship between ICT and tax administration efficiency; the results of the current study show it is statistically significant at 5 % confidence level ( $\beta = 0.107$ , t =2.028, and p =0.022). Therefore, a 1% increase in ICT will lead to increase in tax administration efficiency by 53%. In addition, the independent variable, training in relative to tax administration efficiency, shows a statistically is supported significant at 1% level of confidence ( $\beta = 0.182$ , t = 3.046, and p = 0.001). Lastly, the finding from the multiple regressions shows a significant relationship between leadership style and tax administration efficiency, considering the value of beta, t-value and p-value ( $\beta = 0.132$ , t = 2.081, and p = 0.017).

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#### 4.8 Summary

Generally, this chapter discusses the data analysis performed in this study. For construct validity, the convergent and discriminant validity was tested. In assessing the structural model, the hypothesis was tested with the purpose to answer the research questions as well as fulfilling the research objective. Findings of the study show that motivation, ICT, training and leadership style are significant predictors toward tax administration efficiency. While autonomy is seen having insignificant relationship with tax administration efficiency.

Table 4.13 below shows the hypotheses summary where four independent variables, i.e., the relationship of motivation, ICT, training, leadership style and the dependent variable is

supported. The relationship between autonomy with tax administration efficiency is not supported.

Hypothesis	Relationship	Findings
H1	There is a positive relationship between autonomy and tax administration efficiency.	Not Supported
H2	There is a positive relationship between motivation and tax administration efficiency.	Supported
НЗ	There is a positive relationship between ICT and tax administration efficiency.	Supported
H4	There is a positive relationship between training and tax administration efficiency.	Supported
Н5	There is a positive relationship between leadership style and tax administration efficiency.	Supported

 Table 4.13 Hypothesis Summary

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# CHAPTER FIVE

#### CONCLUSION AND RECOMMENDATION

#### 5.1 Introduction

Present study examined the relationships between autonomy, motivation, ICT, training, leadership style and tax administration efficiency. This chapter provides the summary of the empirical results based on the research objectives and research questions. Moreover, the significance of the study, its theoretical, and practical and policy implications are presented. Finally, the concluding remarks are given which are followed by the recommendations for future study. This chapter discusses the relationship between autonomy, motivation, information and communication technology, training and leadership style as predictor variables and tax administration efficiency as the outcome variable.

#### 5.2 Objective 1: Autonomy and Tax Administration Efficiency

Autonomy is the first variable considered in the present study and is hypothesized to have a positive relationship with tax administration efficiency. This study found an insignificant and negative relationship between autonomy and tax administration efficiency. This study is in contradiction to previous research which found a significant relationship between autonomy and tax administration efficiency. The hypothesis in current study which proposes that autonomy will increase tax administration efficiency is not accepted. On the other hand, the finding, on relationship between autonomy and tax administration efficiency is in line with Onyeukwu (2010), where he found that the autonomy of tax administration has brought about multiplicity of tax burden to the taxpayer because the businesses have to pay different types of taxes by the provincial or state officials. This situation is probably application in the

context of Libya as well, hence contributing to the insignificant and negative relationship found in this study.

#### 5.3 Objective 2: Motivation and Tax Administration Efficiency

The present study hypothesized that there is a positive relationship between motivation and tax administration efficiency. The result obtained supports the hypothesis with a positive t-value of 9.935 and statistically significant at 5% confidence level. This shows the perception of employees of the level of motivation in the tax administration. If the level of motivation is low, then the level of tax administration efficiency will also be low. The current study also shows that if the level of motivation of employees increases by 1%, it will lead to increase in tax administration efficiency by 59.6%. In addition, the significant relationship between motivation and tax administration efficiency is also supported by prior empirical studies of Solomon et al. (2012), Manzoor (2012), Dobre (2013) Fisher & Hostland (2002) and Belfield and Marsden (2010). Studies like; Aguinis & Kraiger, (2010); Davies, Taylor, & Savery, (2001); Lynch & Black, (1995) and Bishop, (1994) which indicated that there is a significant relationship between tax administration efficiency.

## 5.4 Objective 3: Information and communication technology and Tax Administration Efficiency

Information communication and technology is hypothesized to have is a positive relationship with tax administration efficiency in the current study. The result obtained supports the stated hypothesis with a t-value of 2.028 and statistically significant at 5% confidence level. This indicate that ICT plays an important role in the increase of tax administration efficiency. The significant relationship between ICT and tax administration efficiency is also supported by prior empirical studies of Nyambo (2009), Efunboade (2014), Olatunji (2015), Chatama (2013), Bakeer and Wynn (2014), Hamdy (2007), Aregbeshola (2014), Ongori and Migiro

(2010), Shagari (2014) and Buseni (2013). Their results show that the use of ICT increases innovation, productivity, efficient practices and improves the overall performance of the public sector.

# 5.5 **Objective 4: Training and Tax Administration Efficiency**

The current study hypothesized that there is a positive relationship between training and tax administration efficiency. The result obtained supports the hypothesis with a positive t-value of 3.046 and statistically is significant at 5% confidence level. This shows that the higher level of training, the higher tax administration efficiency. The current study also shows that if the level of training of employees increases by 1%, it will lead to increase in tax administration efficiency by 18.2%. The significant relationship between training and tax administration efficiency is in line with previous empirical studies of Bishop (1994). Sarquis and Arbache (2002), Abuhadra and Ajaali (2014), Lynch and Black (1995) and Barrett and O'Connell (2001) which indicated that there is a significant relationship between training and tax administration efficiency.

# 5.6 Objective 5: Leadership style and Tax Administration Efficiency

The current study hypothesized that there is a positive relationship between leadership style and tax administration efficiency. The result obtained supports the hypothesis with a positive t-value of 2.081 and statistically significant at 5% confidence level. The significant relationship between leadership style and tax administration efficiency is also supported by prior empirical studies of Solomon et al. (2012), Manzoor (2012), Dobre (2013) Fisher and Hostland (2002) and Belfield and Marsden (2010). Studies such as; Aguinis & Kraiger (2010) Akeel and Indra (2013), Davies, Taylor and Savery (2001) Lynch & Black (1995) and Bishop, (1994) also indicated that there is a significant relationship between leadership style and tax administration efficiency.

## 5.7 Theoretical Implication of the Study

This study, while empirically examining the five literature streams and relationships between autonomy, motivation, ICT, training, and leadership style with tax administration efficiency, evidently contribute in the body of literature. Findings show that the motivation, ICT, training, and leadership style have significant relationships with the tax administration efficiency, whereas autonomy is found having insignificant relationships with tax administration efficiency. This study, therefore adjoin to the present literature available on the tax administration in the perspective of Libya. The findings of this study are very much important not only to researchers, but academics, students and all the concerned stakeholders. For the researchers, the findings of the study supply evidence from Libya regarding the factors those determine tax administration efficiency.

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The results also provide a new dimension in understanding tax administration efficiency and its determinants in the taxation department of Libya. For the students studying taxation, the study provides supplementary comprehension regarding the variables and their relationship with tax administration efficiency. Similarly, the present study offers an innovative development regarding the variables those had not been empirically investigated previously in Libya. As a pioneering study on the subject, this study provides a foundation and understanding to all the stakeholders including researchers, academics and taxation officials.

#### 5.8 Practical Implication of the Study

The study practically contributes to benefit all the stakeholders concerned with the taxation. While building empirical relationships between selected variables very well established constructs of the taxation in Libya, present study provides practical implications. It is evident that the practical implementation the findings will highly benefit for tax revenue in the country to support government officials and tax collection system. While understanding the dynamics highly influential in tax administration efficiency in Libya, the study provides practical implications to the government to understand the factors affecting tax administration efficiency of practicing motivation among employees, proper implementation of information and communication technology (ICT), providence of sufficient training to employees, looking at the an autonomous function and the leadership style. This study also provides additional confirmation on exploring the relationships between tax administration efficiency and autonomy, motivation, ICT, training, and leadership style in the Libyan perspective. In general, this study has a great assistance to the tax authorities as well as government officials. Tax authorities and government officials can utilize the outcomes to revise, review and to constitute tax laws and policies by taking into consideration the implication and effect on tax administration efficiency.

## 5.9 Limitation and Recommendation for Future Research

This study is limited in several aspects. The study was conducted in the tax department located in Tripoli city, hence it provides geographical limitation. In the future, researchers may consider other regions of the country in order to have an in-depth understanding of the issues. The data collected from the respondents working with the taxation department in the capital city of Libya cannot be generalized to the whole tax departments in Libya. Therefore,

future research should consider other sampling techniques and use other data collection method such as mixed method.

Another limitation is that, this study examined five independent variables i.e., autonomy, motivation, ICT, training and leadership in relation to tax administration efficiency. This is due to the constraints faced by the author in terms of time limit as well as financial limit. Future research may consider other potential factors related to the study in the perspective of other regions of the world.

# 5.10 Conclusion

Taxation, as one of the key sources to increase government revenue, has an enormous impact on the economic growth and development of countries. The key to the success of any plan to make tax administration more efficient and capable of bridging the huge revenue shortfalls at all levels of government is a total reorientation of the staff of these agencies as well as taxpayers. Tax employees must be encouraged to see their job as a national duty. The outcome of the study has revealed that the majority of the respondents agreed that there is a significant relationship between the tax administration efficiency and the factors discussed earlier in this study. This study examined five independent variables i.e. autonomy, motivation, ICT, training and leadership in relation to tax administration efficiency. The outcome of the study has revealed that the majority of the respondents agreed that there is a significant relationship between the tax administration efficiency and the factors discussed earlier in this study. This study examined five independent variables i.e. autonomy, motivation, ICT, training and leadership in relation to tax administration efficiency. The outcome of the study has revealed that the majority of the respondents agreed that there is a significant relationship between the tax administration efficiency and the factors discussed earlier in this study.

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