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The Role of Double Taxation Treaties in Addressing the Phenomenon of International Double Taxation and Attracting Foreign Direct Investment

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Abstract: For attracting more Foreign Direct Investment (FDI), the Developing Countries sign (DDTs), double taxation treaties. They surrender to existed limitations regarding their capability to tax income from the Foreign investors that just can pay off only if the reward is more FDI. However, do DTTs can attract more FDI toward the developing countries or not? There are many reasons revealing that FDI can be increased by DTTs. The current study has been structured as follows. First part defines the understood fact of rising critical role of foreign investment in developing countries and shows the DTTs advancement. Later, it reviews the current empirical investigations, describes the design of study and presents the results. The last section provides the conclusion. To sum up, this research demonstrates that DTTs have a key role to attract FDI.

Key words: Investors, limitations, structured, attract, developing countries

INTRODUCTION

Double taxation takes place only if a multinational organization (MNC) pays its taxes on a same earned corporate income from economic operations in Foreign countries twice for one time to authorities of taxation of a foreign country that is considered as the host to economic operations and another time to those authorities of taxation in home country where the organization is located. Through, imposing the economic operations twice in a Foreign country, then the double taxation can act as a barrier or obstacle regarding foreign investment, hence mutilating the proper allocation of rare financial resources within countries globally. Also DTTs can moderate FDI since the decrease the tax evasion, tax avoidance and other less or more legal strategies of tax saving for instance transfer pricing through multinational organizations (MNCs) (Egger and Merlo, 2011). The 2003 (OECD), revision to commentary to treaty model of organization for economic cooperation and development, clearly states tax avoidance prevention as one of the DTTs objectives (Arnold, 2004). But, this should be assumed within the context of "rising opportunities regarding tax avoidance" (Arnold, 2004) made it possible through growing as well as increasingly complex DTTs web across the first place countries. There has been no doubt of the absolute sovereignty that each country has for determining the extent of the tax and each individual country's practice of its rights of tax sovereignty may exceed the extent of its territory in accordance with the requirements of national interests. This in turn would lead to international double taxation (Lang, 2014). According to this, each country can impose tax on all income that arises in its territory without thinking about the nationality and home of the person. In fact, this gives rise to a strong incentive for investors to evade taxes or to not invest within the borders of the countries. As such the needs have arisen to face the phenomenon of International Double Taxation (IDT).

Several economists have suggested techniques and procedures to eliminate this phenomenon, especially with the inability of tax legislation in certain countries to find an appropriate solution for it (Christians, 2005; Olson, 2008). They consider the Double Taxation Treaty (DTT) to be more effective in controlling the problem of (IDT) compared to unilateral measures that have been taken by the countries because this topic requires countries to abandon their resources for the benefit of another country and abandoning the right to impose the tax while maintaining the rest of this right where contracting parties can negotiate with each other to grant an acceptable amount of the rights to each party in order to resolve the problem of international double taxation (Ahmed and Giafri, 2015). Implementing a double taxation treaty is not

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something that happens overnight. In fact, less Developed countries have spent years' efforts and other very scarce resources to discuss, implement and finalize these treaties with Developed nations. In addition, less Developed nations also forgo potential tax revenues. Most often, these treaties are residence-based favors over source-based taxation. The forgone tax incomes and the money invested in negations with Developed nations in addition to other implementation cost can only make sense if the expected benefits in terms of Foreign Direct Investment (FDI) out-weigh such costs (Egger and Merlo, 2011; Yazdani and Aris, 2015). Regardless of increasing and broad amount of concluded DTTs, there are a few evidences on the mentioned question of this research. It would be surprising considering that question is very critical for the developing countries. In addition, these kinds of treaties usually point to a non-trivial restriction toward their authority to foreign investors' tax corporate income. If such FDI increase could be expected so the spent efforts of DDTs will be wasted and the imposed costs and expenses could not be recovered. The question that arises is how does tax treatment affect people and funds when they move to another country for work or residence in that they are often subjected to double taxation: one in the country of income and the other in their country of origin which leads to difficulty in moving their capital from one country to another (Jamshidi *et al*., 2012).

In this context, Libya has strived to increase its stock of international tax agreements because it recognizes the importance of foreign investments, especially after the tax reforms carried out in 2006. It then penetrated in a broad tax treaty network in many different countries such as Malta in 1972, Pakistan in 1975, Italy in 1976, Tunisia in 1978 india and Kuwait in 1980, Morocco in 1984, Algeria in 1988, Egypt and Sudan in 1990, Saudi Arabia in 1991, France in 2005, Germany in 2006 and Britain in 2009. Furthermore, there are agreements still under negotiations with the Russian Federation, Malaysia, Portugal, Spain, Austria, Jordan, Serbia and Iran (according to the Libyan Tax Department, 2010). Hence, tax legislators have tried to solve this problem by adjusting some tax legislation or resorting to international conventions whether through the signing of agreement between individual countries or by entering into a collective agreement. This drew the attention of researcher to identify the role of double taxation treaties in addressing International Double Taxation (IDT) and attracting direct Foreign Direct Investment (FDI) in Libya.

Double Tax Treaties (DTTs): A properly designed tax system is a corner stone of every country's sovereignty. Therefore, no two countries may tax the same incomes arising from a cross-border transaction (Lang, 2014) which is called (IDT). To preclude International Double Taxation (IDT), countries enter into treaties known as Double Taxation Treaties (DTTs). The DTTs preclude (IDT) in one of two ways allocating taxation rights exclusively to one signatory country or providing mechanisms where both signatory countries are granted taxation rights. In cases where both signatory countries are granted taxation rights, DTTs provide some exemptions and credits as a mechanism to sidestep double taxation.

The benefits of DTTs: To avoid such a hardship to individuals and also with a view to seeing that national economic growth does not suffer, a country may enter into a DTT with other countries. The object of a DTT is providing claims of taxation for two governments for which both of them are legitimately interested in tax claim on a specific income source through assigning one of these two claims or according to a basis by which taxes will be shared between both of them. The main goal of tax treaties was summarized by the Organization for Economic and Cooperation Development (OECD) and the United Nations (UN) in the 'Model Tax Convention on Income and on Capital' in the following words:

- They help in avoiding and alleviating the adverse burden of (IDT) by
- Laying down rules for division of revenue between two countries
- Exempting certain incomes from taxes in either country
- Reducing the applicable rates of tax on certain incomes taxable in either country
- By tax treaties a tax payer in one country can understand clearly the existing limitations of tax liabilities in another country

Besides, DTTs at least serve four other critical functionalities: First, they will make sure that different countries apply similar definitions for determining factors of taxable events and taxing rights. One of these important factors is a permanent establishment definition. Secondly, also most of the treaties have a Mutual Agreement Procedure (MAP) that is used when interpretations regarding provisions of a treaty are challenged. Third in order to avoid treaty concessions being abused, treaties remarkably incorporate different rules and restrictions; for instance, the General Anti-Avoidance Rule known as (GAAR) Gives permission to tax authorities to demonstrate if a transaction is solely done for avoiding taxes or not. In addition, rules such as Controlled Foreign

Corporation (CFC) or benefit limitations tests provide other limitations for residence claims in eligible countries for treaty concessions. Fourth, tax information exchange as a routine or responding to specific requests is available for most of the treaties to help countries deal with tax evasion (Yazdani and Aris, 2015).

DTTs and FDI: Dramatically, FDI has increased during many past decades in order to become a main force in global allocation of technology and funds. Before 1970, global trade typically grew at a higher pace compared to that of FDI but somehow in decades after that time the FDI flew experienced a growth more than twice the growth of exports globally. In early 1990s, the global sales of exports have been outshined by foreign affiliate's sales of MNCs. Not only the FDI flow enhanced across the world but the critical role of FDI as a funding source to developing countries particularly also remarkably increased. Private global financial resources flows have become significantly crucial to the developing countries. During the 1980s when there were tight budgets, the overall reduced interest and also debt crisis in bringing the traditional development aid resulted in decrease in official development assistance from developed countries. At the time that capital flows to developing countries started to again increase in last years of that decade such flows would significantly could be included FDI. Just very recently the aid flows slowly have again increased because of the Monterrey Consensus. Buts the FDI 2003, was the biggest feature of net resource flows toward developing countries and it will remain as a subject for another time to rise. Even though, developed countries are still the big FDI recipient as well as dominating source, their significant dominance encountered a decline during the time in 2003 with developing countries receiving 31% of the FDI almost in opposite to just about 20% in 1980s. In fact inflows of FDI per GDP unit are much more in a lot of developing countries compared to developed countries. During that same time the DTTS among the developing and developed countries grew and because if the FDI's importance, specifically to developing ones, the degree to which these two facts are related causally so it requires exact scrutiny.

In order to improve inflows of FDI, the developing nations have relied on bilateral treaties for signaling their commitment to correct, stable and usually preferred treatment of foreign investors. Through signing the DTTs, developing nations bring foreign investors stability and security regarding the taxation issues and also releasing from double taxation. Through signing the BITs, bilateral investment treaties, developing nations will become committed to providing exact related standards for instance national treatment (foreign investors might not be treated worse than the investors nationally but might also face with better treatment and it can be said that usually are and the best favored type of nation treatment) (the granted privileges to a foreign investor should be later granted to all of the foreign investors). In addition they agree to provide absolute and certain treatment standards for instance equitable and fair treatment regarding foreign investors in compliance with global standards after the investment has occurred. In general, BITs prevent discriminatory treatment in opposite to foreign investors and bring compensation guarantees for expropriated funds or properties and also repatriation and transfer of profits and capitals freely. Moreover, BIT partners agree to sign binding dispute settlement, an argument regarding such provisions initiates.

Many attempts tried to prevent double taxation to be returned after a long time and first DTTs have been concluded long before first signed BITs. As mentioned by Easson (2000), the existed treaty between Austria-Hungary and Prussia demonstrates first modern DTT and also the very first BIT has been signed between Pakistan and Germany in 1959. The multilateral firms for example League of Nations (later known as United Nations) as well as Organization for European Economic Cooperation (later the Organization for Economic Cooperation and Development) promoted DTTd too from early stages. Until late of 1960 decade the DTTs were remarkably concluded between developed nation but after that time a rising amount of treaties were concluded among the developing and developed nations and to a smaller level, between developing nations) (Easson, 2000). This demonstrates the diffusion and spread of BITs globally (FitzGerald, 2002; Neumayer and Spess, 2005). At the end of 1960s, there were 322 treaties overall that increased to 674 at the end of 1970s and then to 1143 in 1980s. The amount of DTTs globally increased very fast in 1990s and in year 2002 there were 2255 DTTs across the world. China in 2002 was in the first place among developing countries and concluded total 21 DTTs with the OECD countries and other countries in the list respectively were Czech and Slovak Republics india, Poland and South Korea and each of them had 20 treaties, Hungary and Romania (FitzGerald, 2002), Russia, Bulgaria indonesia, Malaysia, Mexico, Philippines, South Africa and Thailand (Easson, 2000), Argentina, Latvia and Pakistan (Egger, 2014), Brazil, Estonia, Lithuania, Morocco and Tunisia (Egger and Merlo, 2004). A lot of these countries are key FDI hosts. But also in middle range are some countries including Zambia (Giovanni, 2005), Bangladesh (Collins and Shackelford, 1995), Barbados, Cote d'Ivoire and Zimbabwe (Chisik and Davies, 2004)

which all is not specifically considered as key FDI recipients. Then there are a lot of countries at bottom end which have concluded few or even zero DTTs. The provided appendix lists the amount of DTTs with the OECD countries in year 2002 for all of the existed countries in sample. Because of many reasons that later will be explained, these countries are classified as middle and low income developing countries.

Of course there are some differences regarding the approach various developed countries would tax their multinational organizations in other countries, unfortunately, it is a detailed explanation of what is beyond the scope of this study. For instance, Collins and Shackelford (1995) contrast and compare the imposed taxation burden by Japan, Canada, Germany, United States and United Kingdom on their MNCs. In addition, there are many differences between developing nations regarding their typical concluded DTTs. For instance a lot of developed nations include arrangements of "tax sparing" to be discussed in next part of this study, with the poor developing nations in their DTTs, while US does not. Besides, Vogel in 1997 presented a detailed analysis of American and German DTTs and also the way they make comparison between UN and OECD model conventions.

A few of them believe that double taxation is a big barrier to FDI in developing nations. Still, all of the other aspects are equal and preventing the double taxation could make a country very appealing to foreign investors that usually have a right to choose from many different locations. According to Egger one of the remarkable barriers toward the cross border investment is double taxation from foreign earned incomes. Investors such as stability as well as fiscal and legal certainty which comes along with DTT is able to ensure foreign investors that the achieved profits from investment would not be reduced doubly by means of taxation in both residence and host countries. Similar case for BITs, the DTTs conclusion also initiates a specific signal to foreign investors which is above the taxation mere issue letting the developing nation party to obtain "global economic recognition" (Dagan, 1999) or as noted by Rosenbloom (Reese, 1987), " a sign of global economic respectability". Obviously, policy makers of developing nations should agree that DTTs conclusion can improve inward FDI or they will not penalize to negotiations and signing even more treaties. The reason is that as mentioned before, a lot of DTTs concluded among developing and developed countries can limit source-based taxations that shows developing nations only can acquire a limited extent of taxation revenues from foreign investors. For DTTs between developed nations, it is not a serious issue; flows of FDI equally more or less in both of the directions. The economic relationships among developing and developed countries are significantly unequal but the developed nation is usually the residence country and developing nation is almost particularly the host nation. The tax revenue reduction followed by limitations on source-based taxes obviously is considered as a cost for developing nations. Since developing countries usually have remarkably unfair income distributions which governments prevented from financial resources would encounter with some issues to address through transfer payments (FitzGerald, 2002). In addition Dagan (1999) explained that DTTs fulfill the cynical objective of redistribution of taxation revenues from poorer toward richer signatory nations.

But the losses of taxation are mitigated somehow if the conclusions of Chisik and Davies (2004) to be considered true beyond the included seven developing nations in sample of study. They demonstrated that country-pairs with significantly asymmetric patterns of FDI, typical for developing and developed country pairs, assume to discuss more withholding taxes. More critical, any tax revenue losses could be properly justified only if broader economic advantages of attracting higher FDI levels, for example technology and knowledge spill over, more economic growth, living and employment standards go beyond such expenses (Reese, 1987). For materializing, more levels of FDI in fact have to be attracted along with contribution of DTTs. Some scholars for example Figueroa noted that taxes will not enter the investment decisions of foreign investors that means through implicating the DTTs is not effective in increasing the FDI flows. According to the studies conducted by Gastanaga *et al.* (1998) on FDI flows to developing nations and also Desai on investment decisions by American foreign affiliates abroad, it was revealed that taxes can have a significant negative effect on investment. So if taxes are critical for foreign investors and also DTTs will decrease double taxation so could it be said that DTTs have a positive impact on FDI? The conducted researches which will be reviewed later represent a pessimistic image.

Review of studies on the effect of DTTS on FDI: In a study conducted on bilateral outflows of FDI and also outbound stocks from OECD nations to other nations from 1982-1992 by Blonigen and Davies, it was revealed that DTTs existence is dependent on more bilateral FDI flows as well as Ordinary Least Squares (OLS) estimations. But if older DTTs that often have been concluded long before initiating the studies are differentiated from new DTTs that all have been concluded while conducting the research, then it seems

that such newer treaties do not have any positive impact on FDI in OLS estimation. Regarding the estimation of fixed-effects, according to within-variation of data just in a way that old treaties have been concluded before the sample starting to be irrelevant, the impact is negative too. In addition in a study conducted by Blonigen and Davies on US outbound and inbound FDI during 1980-1999, they realized that the concluded treaties by US in that time had not significant impact at best and negative impact at worst on outbound and inbound FDI stocks. In addition, Davies confirmed the negative and not significant results of both researches and in addition revealed there is no significant outcome if explicitly looking at the treaty renegotiations. Besides, Egger realized that there is a negative impact of new-implemented DTTs in difference-in-difference studies of two years before and two years after conclusion of treaty utilizing dyadic FDI data during 1985-2000.

In opposite to mentioned outcomes above, another two studies indirectly showed that DTTs could be appropriate. First, Hines in 1998 considered the impacts of "tax sparing" agreements instead of DTTs on FDI location of Japan. "Tax sparing" takes place when the capital exporting nations exempt from the extra income taxation its companies achieve from incentives of tax reduction in other countries. The DTTs in a lot of developed nations with the considerable exception of United States with many and not all developing nations have such kind of agreement. In making comparison between US and Japanese investment methods back in 1990, Hines assumed that FDI in developing nations in which a "tax sparing" agreement is almost 1.4-2.4 times more than what it could have been. Secondly, Giovanni (2005) studies merger and acquisition (M and A) copes instead of FDI from 1990-1999. He made an interesting conclusion that existence of DTT is relevant to higher flows of cross-border M and A. The big problem of current studies which directly points out the impacts of DTTs on FDI includes: first, the simultaneous existence of developing nations and OECD in sample as in Egger and Blonigen and Davies could be challenging since FDI decisions on allocation are generally based on dramatic varied motivations in both types of countries. Secondly, using dyadic FDI data that is strength otherwise, results in a sample which is not representative and also restrictive for OECD countries excluding United States. It will not be of great importance if sample of the countries with available data, was random. However, due to bilateral FDI data does exist for all of the OECD countries practically but for the developed countries only when their per capita income is almost high or the size of their population is large.

This also does not include those highly poor with low-income level and also small to medium sized developing nations in which the DTT conclusion could be a critical tool to scare foreign investors. There is only one exception to this issue that is US for which a well comprehensive dyadic data for many developing nations are available. The design of this study aims to deal with both issues. First, we utilize a sample which includes only the developing nations to consider the fact that allocation decisions of FDI in such category of countries is probably to be driven by various motivations compared to FDI allocation inside OECD nations. Second, for the developed nation in which there is the outbound data of FDI, we mean US, a more representative sample should be created from developing nations which also includes a longer time horizon compared to case of Blonigen and Davies. The bigger sample to some extent is because of the extension of the sample backwards between years 1980-1970 and then forwards between years 1999-2001 and at some point due to our control factors seems to have lower levels of missing data compared to variables employed by Blonigen and Davies. Thirdly as previously mentioned, for the developed nations there is no exact representative and dyadic sample to be initiated since there is limited dyadic FDI data. For solving such issue, we utilize non-dyadic FDI data that are existed for large samples. This creates the immediate issue that we are not able to infer directly anymore whether the DTT is covering the FDI or not. In order to encounter with such issue indirectly, we will utilize weighted cumulative DTTs measure a developing nation has signed with the OECD nations where each single DTT will be weighted by outward FDI flow share that the OECD nation considers relevant to overall global outward FDI flow. Also weighting emphasizes on existed differences regarding the size of the potential FDI share that the developing nation has double taxation provisions. Obviously in an ideal universe it is much better to obtain comprehensive and dyadic FDI data for the OECD nations other than United States, thus one can do with no weighting. But, when there is not this type of data so it is believed that advantages of deriving outcomes from more representative and larger sample outweighs the expenses of considering the potential flow of FDI that is covered indirectly by DTTs through weighting procedure mentioned above.

MATERIALS AND METHODS

This study describes the research design and methodology used to collect and analyze the data required to address the research questions posed in this

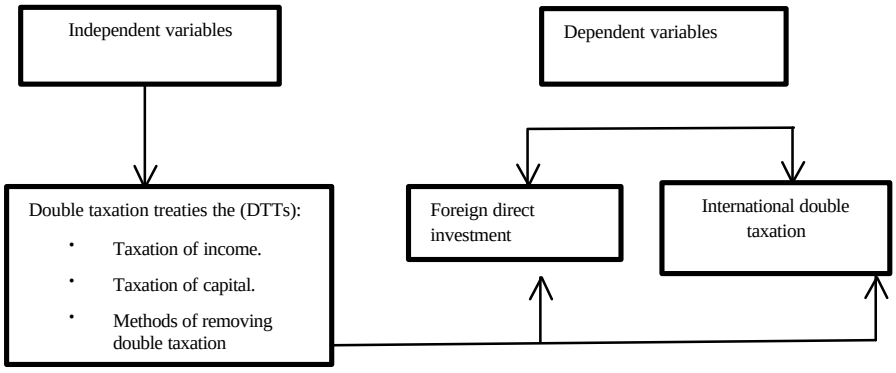

Fig. 1: The frame work of study

study. The research aims to gather empirical evidence capable of providing an overview of current influence of double taxation treaties items in the Libyan economy and also seeks to understand how double taxation treaties assist the Libyan Tax Department (LTD). This section also attempts to establish if double taxation treaties help to improve the number of Foreign Direct Investments (FDI) in the Libyan economy.

Hypothesis development: Based on the previous discussions, the subsequent paragraphs shall discuss the hypotheses of the study. The hypotheses which show the relationship between independent variables and dependent variables, formulated using double taxation treaty items as Independent Variables (IVs) and these include three items according to Blonigen and Davies:

- Taxation of income
- Taxation of capital
- Methods of removing double taxation

Based on the discussion above, the hypotheses of this study are given below in order to guide the discussions; a figure identifying the key constructs used in this study is provided (Fig. 1). Based on review of literature, double taxation and FDI used as Dependent Variables (DV) according to Moosa. These areas of inquiry are classified into two specific research questions:

- To what extent does the Libyan tax legislation successfully address international double taxation through the conclusion of the DTTs?
- Do double taxation treaties (that have been concluded by Libyan tax legislation) lead to higher foreign direct investment?

The above research questions lead to the immersion of the following hypotheses, specifically aimed at resolving the research questions listed before.

- H_1: There are a significant positive relationship between taxation of income and IDT
- H_2: There are a significant positive relationship between taxation of capital and IDT
- H_3: There are a significant positive relationship between methods of removing IDT and IDT
- H_4: There are a significant positive relationship between taxation of income and FDI
- H_5: There are a significant positive relationship between taxation of capital and FDI
- H_6: There are a significant positive relationship between methods of removing IDT and FDI

Research design and data source: A correlational design used for this study because the aim of the study is to determine whether there is a statistically significant relationship among the independent and dependent variables. Moreover, the survey is based on primary data. To take in primary data, 2 options were available: complete enumeration or using a sample. Sampling means a comprehensive operation which involves extraction of the sample, collecting information needed and eventually drawing an inference about double taxation and foreign direct investment. Since, it is too difficult and impractical to cover the entire the foreign direct investment of the study area, a sample will use to represent of the employees in LTD.

However, the methods used to collect primary data for double taxation treaties items assessments can be grouped into two categories, bottom-up and top-down approaches. Bottom-up approaches solicit active participation of the managers, employers at Libyan Taxes Department (LTD). Top-down approaches rely more on questionnaires, collecting information via a survey and tend to be more quantitative in nature (Bhimani *et al*., 2008).

Research Population and Sample: The population refers to the employee list in the Libyan Taxes Department which the research wishes to investigate (Sekaran and Bougie, 2011). According to the Libyan Tax Department (2014), the population of the study consisted of 456 employees in the Libyan Tax Department. The research questions in this study concern the influence of double taxation treaties on international double taxation and foreign direct investment by the Libyan Tax Department. The target population was identified for gathering information regarding employees in the Libyan Tax Department. Members of the population will be derived from (LTD). From this source, 70 employees work in Management of International Tax Agreements, Management of Foreign Tax Revenue and Management of Monitoring and Rating (Researcher has distributed 73 copies and received 70 of them). The Libyan Tax Department (LTD) directory consists of comprehensive profiles of 70 employees. This database available in records (LTD) is frequently used in survey research which involves the employees of LTD.

Questionnaire design: The use of the questionnaire technique is a common method used to collect numerical data needed for statistical analysis when utilizing a quantitative research approach to a study. The questionnaire design has been modified by choosing only variables that suit the employees in (LTD) and also those that can be easily understood by the target respondents. The objective of the questionnaire is to seek information only on mainstream double taxation treaties items within double taxation and the foreign Direct Investment Items (FDI) Through the employees in (LTD). The final version of the questionnaire is comprised of 87 main questions covering 8 specific items. Questions were put into four sections so as to gather data on the key topics in an organized way. Because all respondents were Arabs, the questionnaire was translated from English into traditional Arabic using the reverse-translation method, with an official endorsement from an expert who is fluent in both the Arabic and English languages to ensure the consistency of the questionnaire.

RESULTS AND DISCUSSION

This study explains five different types of techniques that used for analysis data. These are frequency, descriptive, ANOVA, correlation and multiple regressions. This section starts with frequency test because it helps researcher to gain more knowledge about the respondents, followed by descriptive to understand perception of respondents; ANOVA to examine the behavioral differences among different demographics of respondents; correlation to investigate relation among different independent and dependent variables and finally, multiple regression to test the effect of independent on dependent variables.

Result showed that most of the respondents in this study were completed their bachelor degree (44.3%) followed by master (22.9%) and other qualification (20%). Additionally, there were 12.8% respondents who completed their doctorate degree. Frequency results revealed that most of the respondents had work experience between 5-10 years. More specifically, 42.9% respondents indicated that they have work experience between 5-10 years. In addition, 25.7% respondents in this study had work experience for >10 years followed by <1 year. Results showed that 45.7 % respondents agreed that qualification, experience and specialization are the three important criteria for selecting staff in these Managements. However, 22% respondents mentioned that experience alone is the most important criterion for selecting staff in these Managements followed by specialization and qualification. Based on the frequency results, it is clear that 7o% participants of administration department comes from the administration of Foreign Tax Revenue followed by administration of International Tax Convention (17.1%) and administration of Monitoring and Rating (12.9%). Results presents that 42.9% agreed that tax subjugation in Libya is controlled by social dependency followed by economy dependency (37.1%) and lastly political dependency (20%).

Clashes between DTTs and domestic tax law: This question has been measure based on the five point Likert scale and frequency results showed that most of the respondents were strongly disagree that there is clashes between DTTs and domestic tax law. More specifically, 41.4% respondents were strongly disagreed with this statement followed by 28.6% were disagreed. However, one respondent was strongly agreed with this.

Domestic Tax Laws can be adjusted to fit with DTTs: On the other hand in relation with domestic tax adjustment, 51.4% respondents strongly agreed that domestic tax law could be adjusted to fit with DTTs. Moreover, 41.4% respondents were agreed too with the possibilities of this adjustment. In contrast, 4 respondents or only 5.7% respondents were strongly disagreed with this possible adjustment (Table 1-7).

Specific Model for Signing the DTT: In relation with specific model for signing the DTTs in Libya, findings showed that 100% respondents agreed that there is a specific model that Libyan government follow (OECD

Table 1: ANOVA test

Groups	Sum of squares	df	Mean square	F	Sig.
Between	43.458	3	14.486	60.734	0.000
Within	15.742	66	0.239	--	--
Total	59.200	69	--	--	--

Table 2: Tukey test of multiple comparisons

Dependent variable:						95% Confidence interval	
Taxation of capital	(I) Qualification	(J) Qualification	Mean difference (I-J)	SE	Sig.	Lower bound	Upper bound
Tukey HSD							
	Doctorate	Master	-1.66667*	0.20349	0.000	-2.2030	-1.1303
		Bachelor	-2.15054*	0.18492	0.000	-2.6379	-1.6631
		Other	-2.66667*	0.20866	0.000	-3.2166	-2.1167
	Master	Doctorate	1.66667*	0.20349	0.000	1.1303	2.2030
		Bachelor	-0.48387*	0.15034	0.011	-0.8801	-0.0876
		Other	-1.00000*	0.17873	0.000	-1.4711	-0.5289
	Bachelor	Doctorate	2.15054*	0.18492	0.000	1.6631	2.6379
		Master	0.48387*	0.15034	0.011	0.0876	0.8801
		Other	-0.51613*	0.15726	0.009	-0.9306	-0.1016
	Other	Doctorate	2.66667*	0.20866	0.000	2.1167	3.2166
		Master	1.00000*	0.17873	0.000	0.5289	1.4711
		Bachelor	0.51613*	0.15726	0.009	0.1016	0.9306

*The mean difference is significant at the 0.05 level

Table 3: Tukey test of taxation of capital (Tukey HSD[a,b])

		Subset for alpha = 0.05			
Qualification	N	1	2	3	4
Doctorate	9	2.3333	--	--	--
Master	16	--	4.0000	--	--
Bachelor	31	--	--	4.4839	--
Other	14	--	--	--	5.0000
Sig.	--	1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed; a) Uses Harmonic Mean Sample Size = 14.425; b) The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed

Table 4: ANOVA test for in diffrent variables

Groups	Sum of squares	Df	Mean square	F	Sig.
Between	31.610	3	10.537	195.746	0.000
Within	3.553	66	0.054	--	--
Total	35.163	69	--	--	--

Table 5: Tukey test of multiple comparisons according to FDI

Dependent variable:						95% Confidence interval	
Taxation of capital	(I) Qualification	(J) Qualification	Mean difference (I-J)	SE	Sig.	Lower bound	Upper bound
Tukey HSD							
	Doctorate	Master	-0.85359*	0.09667	0.000	-1.1084	-0.5988
		Bachelor	-1.51807*	0.08785	0.000	-1.7496	-1.2865
		Other	-2.21594*	0.09913	0.000	-2.4772	-1.9547
	Master	Doctorate	0.85359*	0.09667	0.000	0.5988	1.1084
		Bachelor	-0.66448*	0.07142	0.000	-0.8527	-0.4762
		Other	-1.36235*	0.08491	0.000	-1.5861	-1.1386
	Bachelor	Doctorate	1.51807*	0.08785	0.000	1.2865	1.7496
		Master	0.66448*	0.07142	0.000	0.4762	0.8527
		Other	-0.69787*	0.07471	0.000	-0.8948	-0.5010
	Other	Doctorate	2.21594*	0.09913	0.000	1.9547	2.4772
		Master	1.36235*	0.08491	0.000	1.1386	1.5861
		Bachelor	0.69787*	0.07471	0.000	0.5010	0.8948

*The mean difference is significant at the 0.05 level

Table 6: Tukey test FDI

		Subset for alpha = 0.05			
Qualification	N	1	2	3	4
Tukey HSD[a,b]					
Doctorate	9	2.7037	--	--	--
Master	16	--	3.5573	--	--

Table 6: Continue

		Subset for alpha = 0.05			
Qualification	N	1	2	3	4
Bachelor	31	--	--	4.2218	--
Other	14				4.9196
Sig.	--	1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed; a) Uses Harmonic Mean Sample Size = 14.425; b) The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed

Table 7: ANOVA test ratio between 48-45

Groups	Sum of squares	Df	Mean square	F	Sig.
Between	48.359	3	16.120	156.707	0.000
Within	6.789	66	0.103	--	--
Total	55.148	69	--	--	--

Table 8: Tukey Test of international double taxation

		Subset for alpha = 0.05			
Qualification	N	1	2	3	4
Tukey HSD					
Doctorate	9	2.1528	--	--	--
Master	16	--	3.0469	--	--
Bachelor	31	--	--	4.1089	--
Other	14	--	--	--	4.7321
Sig.		1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed; a) Uses Harmonic Mean Sample Size = 14.425; b) The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed

Table 9: ANOVA test with in groups

Groups	Sum of squares	Df	Mean square	F	Sig.
Between	29.822	3	9.941	68.413	0.000
Within	9.590	66	0.145	--	--
Total	39.413	69	--	--	--

model) in order to signing the DTT. More specifically 58.6% respondents strongly agreed that Libyan government is based on specific model to sign the DTT and 41.4% respondents agreed. Table 8 presents frequency result related with DTT in Libya.

Tax reforms on taxation of income and taxation of capital could lead to treat IDT: In relation with tax reform, 42.9% respondents strongly agreed that tax reforms on tax income and tax capital could treat as IDT. Similarly, 27.1% respondents had similar perception on this issue. In contrast, 22.9% respondents did not perceive in this way. They were disagreed with this issue. More specifically in this 22.9, 12.9% respondents were strongly disagreed and 10% were disagreed. Lastly, 7.1% respondent had no view in this issue. Table 9 presents frequency findings in this regard.

Libyan Tax Legislation is based on DTTs as tool to remove IDT: Total 80% respondents strongly believed that Libyan tax legislation is based on the DTTs as a tool for removing IDT. Moreover, 17.1% respondents also feel the same. However, only 2.9% respondents were neutral in this view. But in a nutshell, it is clear that 97.1% has positive view toward this question. Table 10 presents frequency findings related with Libyan tax legislation.

Number of Qualified Staff for preparation and negotiation of DTTs is specified: In relation with specifying qualified staffs for preparation and negotiation on tax convention, only 10% respondents were strongly agreed and 25.7% were agreed. In contrast 22.9 were disagreed and 18.6% were strongly disagreed. Result also indicated that significant number respondents were neutral in this view (22.9 %). Therefore, it is clear that respondents had mixed confidence in relation with qualified staff. Table 11 presents frequency findings related with qualified staff.

Staff in tax department knows the polices and procedure that must be followed to compact in DTTs: Results indicated that most of the respondents agreed that staff in tax department knows the policies and procedures that must be followed to compact in DTTs. In contrast results also indicated that only 4.3% respondent disagreed in this view. Moreover, 8.6% respondents were neutral in this view. Hence, it is clear that policies and procedures are not clear to all the staff in tax department which certainly encourages training among employees who are not aware

Table 10: Tukey test of multiple comparisons

Dependent Variable:						95% Confidence Interval	
Taxation of Income	(I) Year of Experience	(J) Year of experience	Mean difference (I-J)	SE	Sig.	Lower bound	Upper bound
Tukey HSD	>10 years	5-10 years	-1.14854*	0.11365	0.000	-1.4481	-0.8490
		1-5 years	-1.56433*	0.17970	0.000	-2.0380	-1.0907
		<1 year	-1.76279*	0.13097	0.000	-2.1080	-1.4176
	5-10 years	>10 years	1.14854*	0.11365	0.000	0.8490	1.4481
		1-5 years	-0.41579	0.17047	0.080	-0.8651	0.0335
		>1 year	-0.61425*	0.11801	0.000	-0.9253	-0.3032
	1-5 years	>10 years	1.56433*	0.17970	0.000	1.0907	2.0380
		5-10 years	0.41579	0.17047	0.080	-0.0335	0.8651
		<1 year	-0.19846	0.18248	0.698	-0.6794	0.2825
	<1 year	>10 years	1.76279*	0.13097	0.000	1.4176	2.1080
		5-10 years	0.61425*	0.11801	0.000	0.3032	0.9253
		1-5 years	0.19846	0.18248	0.698	-0.2825	0.6794

*The mean difference is significant at the 0.05 level

Table 11: Tukey test of taxation of income

		Subset for alpha = 0.05		
Year of experience	N	1	2	3
Tukey HSD[a,b]				
>10 years	18	3.1813	--	--
5-10 years	30	--	4.3298	--
1-5 years	6	--	--	4.7456
<1 year	16	--	--	4.9441
Sig.	--	1.000	1.000	0.563

Means for groups in homogeneous subsets are displayed; a. Uses Harmonic Mean Sample Size = 12.576; b) The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed

Table 12: ANOVA test

Groups	Sum of squares	Df	Mean square	F	Sig.
Between	33.333	3	11.111	28.351	0.000
Within	25.867	66	0.392	--	--
Total	59.200	69	--	--	--

Table 13: Tukey test of multiple comparisons

Dependent Variable:						95% Confidence interval	
Taxation of capital	(I) Year of experience	(J) Year of experience	Mean difference (I-J)	SE	Sig.	Lower bound	Upper bound
Tukey HSD	>10 years	5-10 years	-1.06667*	0.18665	0.000	-1.5586	-0.5747
		1-5 years	-1.83333*	0.29512	0.000	-2.6112	-1.0555
		<1 year	-1.83333*	0.21510	0.000	-2.4003	-1.2664
	5-10 years	>10 years	1.06667*	0.18665	0.000	0.5747	1.5586
		1-5 years	-0.76667*	0.27997	0.039	-1.5046	-0.0287
		<1 year	-0.76667*	0.19380	0.001	-1.2775	-0.2559
	1-5 years	>10 years	1.83333*	0.29512	0.000	1.0555	2.6112
		5-10 years	0.76667*	0.27997	0.039	0.0287	1.5046
		<1 year	0.00000	0.29969	1.000	-0.7899	0.7899
	<1 year	>10 years	1.83333*	0.21510	0.000	1.2664	2.4003
		5-10 years	0.76667*	0.19380	0.001	0.2559	1.2775
		1-5 years	0.00000	0.29969	1.000	-0.7899	0.7899

*. The mean difference is significant at the 0.05 level

about the policies and procedures in this tax department in Libya. Table 12 presents frequency findings in this regard.

Staff that responsible for preparation and discussion is professionally qualified to do work: In relation with staffs' professionalism in order to perform the task related with preparation and discussion of a DTT, results indicated that there were mixed view among respondents. More specifically, 54.3% respondents were agreed that staffs are qualified to do work. In contrast, 25.7% respondents were not agreed with this view. Hence, it is clear that staff in this department required more training for being more professional in handling this critical task. Table 13 presents frequency findings related with staff professionalism.

Purpose of entry double taxation treaties: The primary aim of this section is to identify what are the main purposes of entering DTTs. Among five purposes, 17

Table 14: Tukey test of subset

		Subset for alpha = 0.05		
Year of Experience	N	1	2	3
Tukey HSD[a,b]				
>10 years	18	3.1667	--	--
5-10 years	30	--	4.2333	--
1-5 years	6	--	--	5.0000
<1 year	16	--	--	5.0000
Sig.	--	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed; a) Uses Harmonic Mean Sample Size = 12.576; b) The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed

Table 15: ANOVA of sum

Groups	Sum of squares	Df	Mean square	F	Sig.
Between	31.185	3	10.395	172.477	0.000
Within	3.978	66	0.060		
Total	35.163	69	--	--	--

Table 16: Tukey test multiple comparisons

Dependent Variable:						95% Confidence Interval	
Taxation of capital	(I) Year of experience	(J) Year of experience	Mean difference (I-J)	SE	Sig.	Lower bound	Upper bound
Tukey HSD	>10 years	5-10 years	-.97546*	0.07319	0.000	-1.1684	-.7825
		1-5 years	-1.48380*	0.11573	0.000	-1.7888	-1.1788
		<1 year	-1.85966*	0.08435	0.000	-2.0820	-1.6373
	5-10 years	>10 years	.97546*	0.07319	0.000	.7825	1.1684
		1-5 years	-.50833*	0.10979	0.000	-.7977	-.2190
		<1 year	-.88420*	0.07600	0.000	-1.0845	-.6839
	1-5 years	>10 years	1.48380*	0.11573	0.000	1.1788	1.7888
		5-10 years	.50833*	0.10979	0.000	.2190	.7977
		<1 year	-.37587*	0.11752	0.011	-.6856	-.0661
	<1 year	>10 years	1.85966*	0.08435	0.000	1.6373	2.0820
		5-10 years	.88420*	0.07600	0.000	.6839	1.0845
		1-5 years	.37587*	0.11752	0.011	.0661	.6856

*. The mean difference is significant at the 0.05 level.

respondents agreed that attracting foreign capital is one of the main purposes of entering the DTTs. Similarly, 31 respondents agreed that both elimination of IDT and attracting foreign capital are the two main purposes of entering the DTTs. Last but not least, 22 respondents agreed that political reason is also one of the main purposes for entering the DTTs in Libya.

Definition of Terms in in Libyan DTTs: There are 12 important terms have been identified under the DTTs for the clear definition. Results indicated that three terms are clearly defined in Libyan DTTs. These were person, citizen and resident. Rest of the terms had mixed view. More specifically, for instance in relation with permanent establishment, 60 respondents agreed that it has clear definition and 10 mentioned not. Similarly, 52 respondents out of 70 agreed that immovable property has been clearly defined under the DTTs. Table 14-16 preseants the frequency results of definition of terms under double taxation. Though most of the terms are clearly defined in Libya the DTTs but still few respondents were disagreed. Hence, it is advisable to provide clear definition for all terms under Libyan DTTs.

Taxation of income: There were 15 items for this variable which had been transform into one variable and named as 'taxation of income' (The tax on immovable property income, the profit of institutions, The maritime and air transportation, dividends, royalties, The capital gains the interest, the independent professions, wages, pension and social payments, artists and athletes, students and trainees, public jobs, dependent personal services, reward managers and senior official wages, The other income). The proposed hypothesis related with the variables is stated below.

Null hypothesis: There is no significant difference between the four different qualifications in the context of important items of taxation of income included in Libyan DTTs.

Alternative hypothesis: At least one group is significantly different in the context of important items of taxation of income included in Libyan DTTs than other.

Arithmetic expression:

- H_0: $\mu1 = \mu2 = \mu3 = \mu4$
- H_1: at least one $\mu1$ is different in the context of important items included in the double taxation treaties in Libya

Table 17: Tukey test subset of alpha

		Subset for alpha = 0.05			
Year of experience	N	1	2	3	4
Tukey HSD[a,b]					
>10 years	18	3.0440	-	-	
5-10 years	30	4.0194	-	-	
1-5 years	6	4.5278	-	-	
<1 year	16	4.9036	-	-	4.9036
Sig.	1.000	1.000	1.000	1.000	1.0000

Means for groups in homogeneous subsets are displayed.a. Uses Harmonic Mean Sample Size = 12.576. b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed

Table 18: ANOVA test

Groups	Sum of squares	Df	Mean square	F	Sig.
Between Groups	45.883	3	15.294	108.947	0.000
Within Groups	9.265	66	0.140		
Total	55.148	69	-	-	-

Table 19: Tukey test multiple comparisons

Dependent Variable:						95% Confidence Interval	
Taxation of capital	(I) Year of experience	(J) Year of experience	Mean difference (I-J)	SE	Sig.	Lower bound	Upperbound
Tukey HSD	>10 years	5-10 years	-1.25139*	0.11171	0.000	-1.5458	-0.95700
		1-5 years	-2.03472*	0.17662	0.000	-2.5003	-1.56920
		<1 year	-2.19097*	0.12874	0.000	-2.5303	-1.85170
	5-10 years	>10 years	1.25139*	0.11171	0.000	0.9570	1.54580
		1-5 years	-0.78333*	0.16756	0.000	-1.2250	-0.03417
		<1 year	-0.93958*	0.11599	0.000	-1.2453	-0.63390
	1-5 years	>10 years	2.03472*	0.17662	0.000	1.5692	2.50030
		5-10 years	0.78333*	0.16756	0.000	0.3417	1.22500
		<1 year	-0.15625	0.17936	0.820	-0.6290	0.31650
	<1 year	>10 years	2.19097*	0.12874	0.000	1.8517	2.53030
		5-10 years	0.93958*	0.11599	0.000	0.6339	1.24530
		1-5 years	0.15625	0.17936	0.820	-0.3165	0.62900

*The mean difference is significant at the 0.05 level

Table 20: Tukey test

		Subset for alpha = 0.05		
Year of experience	N	1	2	3
Tukey HSD[a,b]	>10 years	18	2.5278	-
	5-10 years	30	-	3.7792
	1-5 years	6	-	4.5625
	<1 year	16	-	4.7188
	Sig.	-	1.000	1.000
		-	-	0.723

Means for groups in homogeneous subsets are displayed.a. Uses Harmonic Mean Sample Size = 12.576. b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed

Here:

- μ1 = Doctorate
- μ2 = Master
- μ3 = Bachelor
- μ4 = Other qualification

ANOVA results presents in Table 17-20. Results indicated that significant value is >0.05 which eventually indicated that there is significant difference in perception among different group based on qualification in order to include important items in the DTTs. However, ANOVA test is not capable to identify which group is different than others. Hence, this study applied Tukey test to identify the group (s) different than others. Tukey results presents in Table 21. Tukey results indicated that every group has different answer than others. In other words, every group has their own point of view. For instance, doctorate group is not agreeing that all these items included in Libyan DTTs; master group had neutral view toward this. In contrast bachelor group was agreeing that most of items included in the DTTs. On the other hand, group with other qualification was strongly agreed that all these items included in the DTTs (Table 22).

Taxation of capital: There were 2 items for this variable which had been transform into one variable and named as 'taxation of capital'. The capital owned by a resident in a

Table 21: ANOVA table (taxation of income)

Groups	Sum of squares	Df	Mean square	F	Sig.
Between	35.300	3	11.767	188.838	0.000
Within	4.113	66	0.062		
Total	39.413	69			

Table 22: Tukey test

Dependent variable:						95% Confidence interval	
Taxation of incom	Qualification (I)	Qualification (J)	Mean difference (I-J)	SE	Sig.	Lower bound	Upper bound
Tukey HSD	Doctorate	Master	-1.24525*	0.10401	0.000	-1.5194	-0.9711
		Bachelor	-1.89455*	0.09452	0.000	-2.1437	-1.6454
		Other	-2.33500*	0.10665	0.000	-2.6161	-2.0539
	Master	Doctorate	1.24525*	0.10401	0.000	0.9711	1.5194
		Bachelor	-.64930*	0.07684	0.000	-.8518	-0.4468
		Other	-1.08976*	0.09135	0.000	-1.3305	-0.8490
	Bachelor	Doctorate	1.89455*	0.09452	0.000	1.6454	2.1437
		Master	0.64930*	0.07684	0.000	0.4468	0.8518
		Other	-.44046*	0.08038	0.000	-0.6523	-0.2286
	Other	Doctorate	2.33500*	0.10665	0.000	2.0539	2.6161
		Master	1.08976*	0.09135	0.000	0.8490	1.3305
		Bachelor	0.44046*	0.08038	0.000	0.2286	0.6523

*the mean difference is significant at the 0.05 level

Table 23: Tukey test taxation of income

		Subset for alpha = 0.05			
Year of experience	N	1	2	3	4
Tukey HSD[a, b]					
Doctorate	9	2.6199			
Master	16		3.8651		
Bachelor	31			4.5144	
Other	14				4.9549
Sig.		1.0000	1.0000	1.0000	1.0000

Means for groups in homogeneous subsets are displayed: a; uses harmonic mean sample size = 14.425, b; the group sizes are unequal the harmonic mean of the group sizes is used type I error levels are not guaranteed

contracting country and located in other contracting countries, the capital of international transportation). The proposed hypothesis related with the variables is stated.

Null hypothesis: There is no significant difference in perception between the four different qualifications in the context of items of taxation of capital included in Libyan DTTs.

Alternative hypothesis: At least one group is significantly different in the context of important items of taxation of capital included in Libyan DTTs than other.

Arithmetic expression:

- H_0: $\mu1 = \mu2 = \mu3 = \mu4$
- H_1: at least one $\mu1$ is different in the context of important items included in the double taxation treaties in Libya

Here:

- $\mu1$ = Doctorate
- $\mu2$ = Master
- $\mu3$ = Bachelor
- $\mu4$ = other qualification

ANOVA results presents in Table 23. Results indicated that significant value is <0.05 which eventually indicated that there is significant difference in perception among different group based on qualification in the context of taxation of capital. However, ANOVA test is not capable to identify which group is different than others. Hence, this study applied Tukey test to identify the group (s) different than others. Similar result also can be found in the context of taxation of capital based on Tukey test. Results indicated that four groups based on qualification had different view toward the taxation of capital. Tukey results indicated that group with doctorate qualification were not agreed that capital owned by a resident in contracting country must be taxed in other contacting country. In contrast, group with other qualification strongly support to impose tax on those capital owned by resident in other contacting country.

Foreign Direct Investment (FDI): FDI is considered as one of the dependent variables in this study. There were

24 items for this variable which had been transform into one variable and named as 'Foreign direct investment'. (Libyan exports, Libyan imports, Trade balance, job opportunities, technology transfer, exchange rate, contribution of practicing labor training, net exports, net imports inflation rate, unemployment rate, consumer spending, per capita. Exports, imports, exchange rate, level of foreign investment, consumer spending, per capita. Resources of country, population, experience and qualified, competition between public and private sector, level of foreign investment). The proposed hypothesis related with the variables is stated below.

Null hypothesis: There is no significant difference in perception between the four different qualifications toward the importance of foreign direct investment in Libya's economy.

Alternative hypothesis: At least one group is significantly different in perception toward the importance of foreign direct investment in Libya's economy than other.

Arithmetic expression:

- H_0: $\mu1 = \mu2 = \mu3 = \mu4$
- H_1: at least one μ is different in the context importance of foreign direct investment on Libya's economy

Here:

- $\mu1$ = Doctorate
- $\mu2$ = Master
- $\mu3$ = Bachelor
- $\mu4$ = other qualification

Results indicated that significant value is <0.05 which eventually indicated that there is significant difference in perception among different group based on qualification toward the influence of the DTTs on FDI in Libya's economy. Thus, we reject null and accept alternative. In addition, ANOVA test is not capable to identify which group is different than others. Hence, this study applied Tukey test to identify the group (s) different than others. In the same fashion, Tukey results revealed that group with doctorate qualification were not really agreed that the DTTs have influence on FDI and plays important role in improving Libyan economy and they believe that Libyan tax legislation could give more tax incentive for that purpose instead of sighing DTTs. In contrast, group with other qualification agreed that DTTs have positive influence on FDI and plays important role in developing Libya's economy.

International Double Taxation (IDT): IDT is considered as one of the dependent variables in this study. There were 19 items for this variable which had been transform into one variable and named as 'International double taxation' (Clashes between the DTTs and domestic tax regulations, Domestic tax laws could be adjusted to fit with the DTTs, Specific model for sign tax agreements, Tax reforms on tax income and tax capital, Libya tax legislation is based on the DTTs as a tool for removing IDT, The number of qualified staff, the policies and procedures, professionally qualified, The main purpose of entry DTTs. Definition of person, citizen, resident international traffic, competent authority, enterprise of a contracting country, permanent establishment, immovable property interest, dividends, royalties, business profits.

In relation with IDT, ANOVA results also revealed same results as like other variables. Table 24-30 are present results of ANOVA and Tukey. ANOVA test indicated that there are significant behavioral differences among different groups based on qualification.

Moreover, Tukey test revealed that group with doctorate degree has less favorable perception toward the IDT in Libya than other groups, they believe IDT can be treated by tax reforms on income and capital. In contrast bachelor and other qualified group had more favorable view toward IDT in Libya. In conclusion related with perception of different group based on qualification, results revel that group with doctorate degree relatively has less favorable perception toward the IDT than any other group with other qualification. Similarly in all the cases, results unveiled that group with master degree were neutral toward the IDT in Libya. In contrast in all cases group with bachelor and other qualification had very favorable perception toward IDT. Based on these findings, it can be concluded that the more the qualification is the less favorable view toward IDT.

Years of experience: Many prior studies consented that there could be different among different experience groups' perception toward many important issues related with tax. Hence, this study also examined the behavioral differences among different groups based on years of experience toward the independent and dependent variables identified by this study. In order to perform, similarly, ANOVA test was employed. Hence next section describes results of ANOVA.

Taxation of income: In relation with taxation of income and years of experience the proposed hypothesis is stated below.

Table 24: Tukey test multiple comparisons

Dependent variable:						95% Confidence interval	
Taxation of capital	(I) Qualification	(J) Qualification	Mean difference (I-J)	SE	Sig.	Lower bound	upper bound
Tukey HSD	Doctorate	Master	-0.89410*	0.13364	0.000	-1.2463	-0.5419
		Bachelor	-1.95609*	0.12144	0.000	-2.2762	-1.6360
		Other	-2.57937*	0.13703	0.000	-2.9405	-2.2182
	Master	Doctorate	0.89410*	0.13364	0.000	0.5419	1.2463
		Bachelor	-1.06200*	0.09873	0.000	-1.3222	-0.8018
		Other	-1.68527*	0.11737	0.000	-1.9946	-1.3759
	Bachelor	Doctorate	1.95609*	0.12144	0.000	1.6360	2.2762
		Master	1.06200*	0.09873	0.000	0.8018	1.3222
		Other	-0.62327*	0.10328	0.000	-0.8955	-0.3511
	Other	Doctorate	2.57937*	0.13703	0.000	2.2182	2.9405
		Master	1.68527*	0.11737	0.000	1.3759	1.9946
		Bachelor	0.62327*	0.10328	0.000	0.3511	0.8955

*. The mean difference is significant at the 0.05 level.

Table 25: Composite reliability for scale

Composite Items	Alpha value
Taxation of income.	0.974
Taxation of capital.	0.951
Foreign Direct Investment.	0.990
International double tax.	0.951

Table 26: Correlation analysis for FDI

Test	Taxation of income	Taxation of capital	Total crediting method	FDI
Pearson Correlation	1	0.0947**	0.0931**	0.0968**
Sig. 0.0 (2-tailed)		0.0000	0.0000	0.0000
N	70	70	70	70
Pearson Correlation	0.0947**	1	0.0885**	0.0887**
Sig. 0.0 (2-tailed)	0.0000		0.0000	0.0000
N	70	70	70	70
Pearson Correlation	0.0931**	0.0885**	1	0.0914**
Sig. 0.0 (2-tailed)	0.0000	0.0000		0.0000
N	70	70	70	70
Pearson Correlation	0.0968**	0.0887**	0.0914**	1
Sig. 0.0 (2-tailed)	0.0000	0.0000	0.0000	
N	70	70	70	70

**0.0 Correlation is significant at the 00.001 level (2-tailed)

Table 27: Correlation Analysis for IDT

Test	Taxation of Income	Taxation of Capital	Total Crediting Method	IDT
Pearson correlation	1	00.0947**	00.0931**	000.0965**
Sig00.0 (2-tailed)		00.0000	00.0000	00.0000
N	70	70	70	70
Pearson correlation	00.0947**	1	00.0885**	00.0893**
Sig00.0 (2-tailed)	00.0000		00.0000	00.0000
N	70	70	70	70
Pearson correlation	00.0931**	00.0885**	1	00.0866**
Sig00.0 (2-tailed)	00.0000	00.0000		00.0000
N	70	70	70	70
Pearson Correlation	00.0965**	00.0893**	00.0866**	1
Sig00.0 (2-tailed)	00.0000	00.0000	00.0000	
N	70	70	70	70

**00.0 Correlation is significant at the 000.001 level (2-tailed)

Table 28: Model summary[b]

Model	R	R^2	Adjusted R^2	SE of the estimate
1	0.973[a]	0.947	0.945	0.16797

[a]Predictors: (Constant), Tax capital, Total crediting method, Taxation of Income; b: Dependent variable: FDI

Table 29: ANOVA of regression

Model	Test	Sum of squares	Df	Mean square	F-value	Sig.
1	Regression	3300.0301	3	1100.0100	39300.0418	00.0000[b]
	Residual	100.0862	66	00.0028		
	Total	3500.016369				

[a]Dependent Variable: FDI; b. Predictors: (Constant), taxation of capital, total crediting method, taxation of income

Table 30: Coefficients analysis

Variables	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
(Constant)	0.118	0.149		0.792	0.431
Total crediting method	0.066	0.052	0.099	1.272	0.208
Taxation of Income	1.087	0.106	1.151	10.220	0.000
Taxation of capital	-0.224	0.068	-0.290	-3.293	0.002

[a]Dependent variable: FDI

Table 31: Model summary

Model	R	R^2	Adjusted R^2	Std. Error of the estimate
1	1.971[a]	0.944	0.941	0.21722

[a]Predictors: (Constant), Taxation of capital, Total Crediting Method, Taxation of Incomeb. Dependent Variable: IDT

Null hypothesis: There is no significant difference between the four different groups based on years of experience in the context of important items of taxation of income included in in Libyan DTTs.

Alternative hypothesis: At least one group is significantly different in the context of important items of taxation of income included in the in Libyan DTTs.

Arithmetic expression:

- H_0: $\mu1 = \mu2 = \mu3 = \mu4$
- H_1: at least one $\mu1$ is different in the context of important items included in the double taxation treaties in Libya

Here:

- $\mu1$ = >10 years
- $\mu2$ = 5-10 years
- $\mu3$ = 1-5 years
- $\mu4$ = <1 years

ANOVA results presents in Table 31. Results indicated that significant value is <0.05 which eventually indicated that there is significant difference in perception among different group based on years of experience in order to include important items in DTTs. However, ANOVA test is not capable to identify which group is different than others. Hence, this study applied Tukey test to identify the group (s) different than others. Tukey results presents in the Table 9 and 10.

Tukey test indicated that group with higher experience are different than group with less years of experience. More specifically, results indicated that group with >10 years of experience is completely different than other groups. In contrast, results also indicated that there is no significant difference in perception between group with 1-5 years and <1 years of experience. Additionally, group with >10 years of experience were natural in the view of including many important aspects in the DTTs. Whereas, groups with less years of experience had more favorable view in order to include all these important aspects in the DTTs.

Taxation of capital: The proposed hypothesis related with the taxation of capital and years of experience is stated below.

Null hypothesis: There is no significant difference in perception between the four different groups based on years of experience in the context of taxation of capital in Libyan DTTs.

Alternative hypothesis: At least one group is significantly different in the context of important items included in of taxation of capital in Libyan DTTs than other.

Arithmetic Expression:

- H_0: $\mu1 = \mu2 = \mu3 = \mu4$
- H_1: at least one $\mu1$ is different in the context of important items included in the double taxation treaties in Libya

Here:

- $\mu1$ = >10 years
- $\mu2$ = 5-10 years
- $\mu3$ = 1-5 years
- $\mu4$ = <1 years

ANOVA results presents in Table 32 and 33. Results indicated that significant value is >0.05 which eventually indicated that there is significant difference in perception among different group based on years of experience in the context of taxation of capital. However, ANOVA test is not capable to identify which group is different than others. Hence, this study applied Tukey test to identify the group (s) different than others. Tukey results presents in Table 12 and 13. Similar result also can be found in the context of taxation of capital based on Tukey test. Results

Table 32: ANOVA of residual

Model	Variables	Sum of squares	Df	Mean square	F-value	Sig.
1	Regression	52.034	3	17.345	367.606	0.000[b]
	Residual	3.114	66	0.047		
	Total	55.148	69			

[a]Dependent Variable: IDT b. Predictors: (Constant), Tax of capital, Total Crediting Method, Tax of Income

Table 33: Coefficient

	Unstandardized coefficients		Standardized coefficients		
Variables	B	Std. error	Beta	T	Sig.
(Constant)	-1.523	0.193		-7.911	0.000
Total Crediting method	-0.199	0.067	-0.240	-2.989	0.004
Taxation of income	1.624	0.138	10.373	11.811	0.000
Taxation of capital	-0.188	0.088	-0.195	-2.145	0.036

[a]Dependent Variable: IDT

indicated that three out of four groups based on years of experience had different view toward the taxation of income. Tukey results indicated that group with more than 10 years of experience were neutral that capital owned by a resident in contracting country must be taxed in other contacting country. In contrast, two groups, <1 year and 1-5 years of experience, strongly support to impose tax on those capital owned by resident in other contacting country.

Foreign Direct Investment (FDI): The proposed hypothesis related with the FDI and years of experience is stated below:

Null hypothesis: There is no significant difference in perception between the four different groups based on years of experience toward the importance of foreign direct investment in Libya's economy.

Alternative hypothesis: At least one group is significantly different in perception toward the importance of foreign direct investment in Libya's economy than other.

Arithmetic expression:

- H_0: $\mu1 = \mu2 = \mu3 = \mu4$
- H_1: at least one $\mu1$ is different in the context of important items included in the double taxation treaties in Libya

Here:

- $\mu1$ = >10 years
- $\mu2$ = 5-10 years
- $\mu3$ = 1-5 years
- $\mu4$ = <1 years

ANOVA results presents in Table 14. Results indicated that significant value is < 0.05 which eventually indicated that there is significant difference in perception among different group based years of experience toward the influence of the DTTs on FDI in Libya's economy. Thus, we reject null and accept alternative. In addition, ANOVA test is not capable to identify which group is different than others. Hence, this study applied Tukey test to identify the group (s) different than others. Tukey results presents in Table 15 and 16. Similar with other two factors, results revealed that all the groups based on years of experience were different in their perception toward the importance of FDI on Libya's economy. Results clearly revealed that group with >10 years of experience had neutral view toward the influence of the DTTs on FDI in the Libya's economy. In contrast, group with less than 1 year experience had strong positive view toward the influence of the DTTs on FDI in Libya but results indicated that all these four groups were different than each other.

International double taxation: In relation with IDT, ANOVA results also revealed same results as like other variables. Table 18-21 are present results of ANOVA and Tukey. ANOVA test indicated that there is a significant behavioral difference among different groups based on years of experience. Moreover Tukey test revealed that group with more experience has less favorable perception toward the IDT in Libya than other groups, because they believe tax reforms could treat IDT. In contrast, group with less years of experience relatively had more favorable view toward IDT in Libya than other groups with more experience. It is clear that all the three independent variables are correlated with FDI in 968% confidence interval. Among three, taxation of income is highly correlated with FDI followed by methods of removing IDT and taxation of capital. More details about the effect of all these variables on FDI have been explain in regression analysis. In relation with IDT, correlation results revealed that all the three independent variables are correlated with IDT in 965% confidence interval. Moreover, among all three taxation of income shows the highest relationship

followed by taxation of capital and methods of removing IDT. Table 23 presents the correlation results related with IDT.

Multivariate analysis for FDI and IDT: The results show that the multiple regression coefficient (R) of the three independent variables and FDI was 0.973 and R Square was 0.947. Table 24 is shown the aggregate effect of regression analysis. The results suggested that the three independent variables considered in the mode account for 94% (R^2) of the variation FDI in Libyan. This is significantly explained by the groups of three independent variables as shown by the large F value of 393.418 ($p<0.000$). Therefore, there is evidence that these three independent variables significantly affect the FDI in Libya.

The hypotheses of this study are concerned with the individual effect of three variables on FDI in Libya. The test of these null hypotheses leads to accomplish the specific objective of this study, The multiple regression analysis investigated which independent variables is the best predict the Libyan FDI with significant level. The strength of influence of each of the independent variables would have on the FDI been addressed and the results are shown in Table 32. Based on the coefficient results, only two variables, namely taxation of income and taxation of capital showed significant effect on FDI as significant value is below 0.05. However, between these two variables taxation of income showed positive significant effect on FDI and taxation of capital showed significant negative effect on FDI. Additionally, methods of eliminate IDT did not show any significant effect on FDI. So based on the regression results related with FDI, this study can concluded that two out of three independent variables are significantly affect FDI in Libya. Similarly, results related with IDT, show that the multiple regression coefficient (R) of the three independent variables and IDT was .971 and R^2 was 0.941. Table 33 is shown the aggregate effect of regression analysis.

The results suggested that the three independent variables considered in the mode account for 94% (R^2) of the variation IDT in Libyan. This is significantly explained by the groups of three independent variables, as shown by the large F value of 367.606 ($p<.000$). Therefore, there is evidence that these three independent variables significantly affect the IDT in Libya.

The hypotheses of this study are concerned with the individual effect of three variables on FDI in Libya. The test of these null hypotheses leads to accomplish the specific objective of this study, The multiple regression analysis investigated which independent variables is the best predict the Libyan FDI with significant level. The strength of influence of each of the independent variables would have on the FDI been addressed and the results are shown in Table 28. Based on the coefficient results, all three independent variables were important for IDT. Results showed that all three independent have significant effect on IDT as significant value is below 0.05. Moreover, among these three, only one, taxation of income, has positive effect on IDT. In contrast, other two variables, taxation of capital and methods of removing IDT have negative effect on IDT.

CONCLUSION

The main objective of this study was to investigate the role of the DTTs for addressing IDT and attracting FDI. To reach that researcher has used taxation of income; taxation of capital and methods of removing IDT as independent variables, IDT and FDI as dependent variables and the objectives of the research was reached quantitatively using a descriptive and causal research design. The model was based on the sample of 70 employees working within Management of International Tax Agreements, Management of Foreign Tax Revenue and Management of Monitoring and Rating. Just these managements are responsible for preparation, negotiation and implementation of international tax agreements. Researcher has used SPSS statistical package to analyze the data. Fife techniques have used in this study: Frequency test to gain more knowledge about the respondents, Descriptive to understand perception of respondents, ANOVA to examine the behavioral differences among different demographics of respondents, Correlation to investigate relation among different independent and dependent variables, Multiple regression to test the effect of independent on dependent variables. According to findings, Libyan tax legislator has succeeded to address IDT of taxation of income by signed the DTTs, on the other hand he has failed to do so with IDT of taxation of capital. In addition using total exemption method to remove IDT could not lead to remove IDT completely. However, addressing IDT partly has contributed to increase the level of FDI even though the negative effect of taxation of capital on FDI and the method used for removing IDT. A growing internationalization of economic relationships is taking place in contemporary society. A significant number of transactions among economic agents are taking the form of cross-border transactions. Very often, they involve income flows that are the return on investments made by non-residents in a countrys territory, usually called source country and which are sent to the country of residence of such agents. Since, each of the countries involved in these transactions applies its own tax law

when exercising its taxing power which is a concrete example of the exercise of their Sovereignty, it is possible to levy taxes on the income and capital involved in these transactions twice: in the source country and in the country of residence of the economic agent. Double taxation treaties are enacted to abolish incidents of double taxation. Moreover, it helps less Developed countries in attracting foreign direct investment, discourage and eradicate double taxation. Several studies have revealed that there is a positive impact of implementing DTTs on attracting foreign direct investment to Developing countries. Implementing a double taxation treaty is not something that happens overnight. In fact less Developed countries spent year's efforts and other very scarce resources to discuss, implement and finalize these treaties with developed nations. In addition, less Developed nations also forgo potential tax revenues. Most often these treaties favor residence-based over source-based taxation. The forgone tax incomes and the money invested in negations with Developed nations in addition to other implementation cost can only make sense if the expected benefits in terms of FDI out-weight such costs. The results of this study indicate that, even though Libyan tax legislation does not success to address international double taxation completely however, tax reforms and expanded in signed DTTs have contributed to increase the amount of FDI toward Libya. The findings of this study agree with result studies of Niemery 2007; Parikn and Spaher 2011 as well as Martian 2014.

According to reports from Libyan central bank and reports from Libyan Foreign investment Board in 2006-2010). Tax reforms and signed tax agreements have been successful in attracting approximately $ 4.7 billion from foreign capital in 2006 to Libya; these investments were directed to oil activities and other economic activities. In 2007, foreign capital jumped markedly to reach an excess $ 6.2 billion as result of increasing foreign investors' confidence in investment conditions in Libya. However, the amount of foreign capital plummeted in 2008 to reach $4.1 billion as a result of the global economic crisis in 2009 foreign capital continued to decline to hit $2.7 billion (Libyan foreign investment board, 2009). In 2010 foreign capital has recorded highest number ever to hit $19 billion have directed mostly to construction sector and oil sector, the major reason for increasing the level of foreign investment is signing Libya DTTs with Germany and England. Move evidences have provided by reports of Libyan central bank in 2006-2010, the reports showed increasing growth rate of real GDP by 3% in 2010 compared to 2009 to reach 52 billion DL, that lead to rise per capita of real GDP from 8339 DL in 2009 to 8526 DL in 2010, besides that, total reserves jumps to hit $123.5 billion in 2010 instead of $99.8 billion in 2009. According to Libyan central bank, the major causes of increasing the amount of GDP and total reserves are back to rise of oil prices, foreign investments and exchange rates.

International double taxation: Based on coefficient results, all three independent variables have significant effect on IDT as significant value is below (0.05). Only taxation of income has positive effect on IDT (0.000). In contrast, other two variables taxation of capital and methods of removing IDT have negative effect on IDT respectively (0.036 and 0.004). These findings are not surprised, according to Asmat and Hinci using total crediting method as tool for removing IDT could not address IDT completely and imposing tax of capital from host country would lead to IDT of capital.

Foreign direct investment: Based on the coefficient results only two variables namely taxation of income and taxation of capital showed significant effect on FDI as significant value is below (0.05). However between these two variables taxation of income showed positive significant effect on FDI (0.000) and taxation of capital showed significant negative effect on FDI (0.002). These results confirm that addressing double taxation of income leads to higher FDI and failure to address double taxation of capital would leads to less FDI.

Demographics: In order to examine these behavioral differences, this study employed ANOVA and Tukey test by selecting qualification and years of experience. In qualification there were four gropes namely doctorate, master, bachelor and other qualification, under years of experience there were four categories, >10 years, 5-10 years, 1-5 years and <1 year. Results provided that significant value is < 0.05 which eventually indicated that there is significant difference in perception among different group based on qualification and years of experience toward variables (taxation of income, taxation of capital, FDI and IDT).

RECOMMENDATIONS

Recommendations of this study have divided into four categories.

Libyan tax department: Qualifying and preparing a larger number of staff who are responsible for the preparation and negotiation of the DTTs and that is because they are limited according to the opinions of the respondents. Besides, working to raise the efficiency of the staff in Libyan tax department especially who belong to

management of tax agreements, management of foreign tax revenue as well as management of monitoring and rating through obligating them to attend discussions, seminars and conferences which are related to the subject. Moreover, necessity to review previous the DTTs that concluded by Libyan tax legislator, especially the number of answers from a sample study confirmed that some of agreements have been concluded for political reasons. Notification staff of Libyan tax department on the measures and procedures that must be taken for implementation of international tax agreements.

Libyan tax legislator: Finding a clear and specific definition of all terms related to the DTTs and making sure the DTTs that concluded by the Libyan tax Legislator covers all elements of income and exemption foreign capital from the taxes to ensure its flow towards Libya. The need to rely on the United Nations model to sign the DTTs with other nations instead of the OECD model, especially most of studies related to the matter confirmed the appropriateness of such UN model for developing countries. Coordination with Developing countries at the conclusion of any tax agreement with Developed countries to ensure the best conditions for negotiation. Libyan tax Legislator should adopt a certain standard to impose taxes, because multiple taxation standards lead to the occurrence the phenomenon of international double taxation.

For attracting FDI: Giving more tax incentives for foreign investors to ensure attract more FDI especially numerous studies have confirmed the existence of a positive relationship between the tax incentives and the flow of foreign investment. Additionally, Providing more guarantees for foreign investors in order to ensure the protection of their investments inside Libya through putting laws and Legislation to protect them from any risks. Using progressive exemption method as tool for removing IDT instead of total exemption method can guarantee eradication of IDT and providing more FDI. Working on signing more the DTTs, especially with countries which we have strong economic ties with, like United States and China to ensure attracting more foreign investment.

Future research: Working on preparation specific model of DTT for Libya that can be guide for conclusion any DTTs with other countries. In addition, conduct scientific studies in order to know the effect of the DTTs on the Libyan tax revenue. Besides, Libyan researchers should review tax agreements from time to time in order to ensure that these agreements contribute to the development of Libyan economy. Finally, the importance of finding additional alternatives for national income of Libyan, especially in light of Libyan economy depending on a large extent on oil revenues and natural gas as a source of the income.

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