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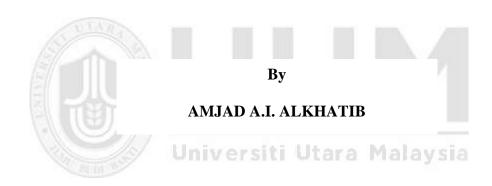


# ECONOMIC DOMINATION, MODERATING ROLE OF PUBLIC SPIRIT AND DETERMINANTS OF INCOME TAX EVASION AMONG PALESTINIAN SMEs



DOCTOR OF PHILOSOPHY UNIVERSITI UTARA MALAYSIA August 2019

# ECONOMIC DOMINATION, MODERATING ROLE OF PUBLIC SPIRIT AND DETERMINANTS OF INCOME TAX EVASION AMONG PALESTINIAN SMEs



Thesis Submitted to
Tunku Puteri Intan Safinaz School of Accountancy,
Universiti Utara Malaysia,
in Fulfillment of the Requirement for the Degree of Doctor of Philosophy

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#### **ABSTRACT**

This study investigates the determinants of income tax evasion among Palestinian Small and Medium Enterprises (SMEs). Previous studies regarding the determinants of income tax evasion among SMEs are limited and results are somewhat inconsistent. The factors that determine SMEs tax evasion have not been sufficiently examined especially in the Palestinian context. This study extends Fischer model that is built on the integration of both Economic and Socio-Psychological theories by incorporating the Social Dominance Theory. It contributes to existing literature by investigating the direct effect of economic domination and incorporating the moderating effect of public spirit. Therefore, this study hypothesises seven (7) factors affecting tax evasion, as well as six (6) hypotheses on the moderating effects of public spirit. The study employs questionnaire survey of 500 owners-managers of SMEs listed in the Federation of Palestinian Chambers of Commerce, Industry, and Agriculture operating in West Bank, of which 184 responses (37%) are usable for analysis. The Partial Least Squares (PLS-SEM) was used to test the hypotheses. The results show that probability of detection, tax penalty, tax fairness, peer influence, tax rate, and economic domination have a significant direct relationship with tax evasion. The findings also ascertained the considerable moderating effect of public spirit on the relationship between probability of detection, tax penalty, and tax fairness on income tax evasion. The findings of the present study provide important insights into the tax authority, policy makers, and future researchers in understanding the tax evasion of SMEs. In order to curtail tax evasion in Palestine, tax authority should widen its audit, imposes more tax penalties, and publicise the information about detecting tax evaders to serve as warning to potential evaders. The current tax rate structure would be fairer if SMEs are given a lower tax rate to eliminate the perception of unfair tax burden.

**Keywords:** tax evasion, SMEs, economic domination, public spirit, Palestine.

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#### **ABSTRAK**

Kajian ini menyiasat penentu pengelakan cukai pendapatan dalam kalangan pengusaha Perusahaan Kecil Sederhana (PKS) Palestin. Kajian lepas mengenai penentu pengelakan cukai pendapatan dalam kalangan PKS adalah terhad dan tidak konsisten. Faktor- faktor penentu pengelakan cukai oleh PKS masih belum dikaji secara menyeluruh terutamanya dalam konteks negara Palestin. Kajian ini memperkembangkan model Fischer yang dibina berasaskan integrasi teori-teori ekonomi dan sosio-psikologi dengan gabungan Teori Dominasi Sosial. Kajian ini menyumbang kepada literature sedia ada dengan menyelidik kesan langsung dominasi ekonomi dan gabungan kesan penyederhanaan semangat muhibah. Oleh yang demikian, kajian ini telah membina tujuh (7) hipotesis faktor yang memberi kesan kepada pengelakan cukai dan enam (6) hipotesis kesan penyederhanaan semangat muhibah. Kajian ini menggunakan borang soal selidik yang diedarkan kepada 500 pemilik-pengurus PKS yang tersenarai dalam Persekutuan Perdagangan, Industri dan Agrikultur Palestin yang beroperasi di Tebing Barat, dan sebanyak 184 respon (37%) boleh digunakan untuk dianalisis. Partial Least Squares (PLS-SEM) telah digunakan untuk menguji hipotesis. Hasilnya menunjukkan kebarangkalian pengesanan, penalti cukai, keadilan cukai, pengaruh rakan, kadar cukai, dan dominasi ekonomi mempunyai hubungan langsung yang signifikan terhadap pengelakan cukai. Hasil kajian juga menunjukkan kepentingan penyederhanaan semangat muhibah ke atas hubungan antara kebarangkalian pengesanan, penalti cukai dan keadilan cukai terhadap pengelakan cukai pendapatan. Hasil kajian ini memberi pemahaman yang lebih mendalam kepada lembaga cukai, penggubal dasar, dan penyelidik akan datang mengenai pengelakan cukai oleh PKS. Untuk menghindari pengelakan cukai di Palestin, lembaga cukai perlu memperluaskan lagi audit mereka, mengenakan lebih banyak penalti cukai, dan memberi pendedahan kepada masyarakat umum mengenai cara mengenal pasti pengelak cukai sebagai amaran kepada mereka yang berpotensi mengelak cukai. Struktur kadar cukai semasa juga akan lebih adil sekiranya PKS diberi kadar cukai yang lebih rendah supaya dapat menghapuskan persepsi mengenai beban cukai yang tidak adil.

**Kata kunci:** pengelakan cukai, PKS, dominasi ekonomi, semangat muhibah, Palestin.

#### ACKNOWLEDGEMENT

First and foremost my gratitude goes to Allah (S.W.T) for giving me the strength to accomplish this dream- Alhamdu-lil-Allah. Without the grace of Allah, mercy and supreme guidance this effort wouldn't have been a success.

I am specifically grateful to my supervisors, Associate Professor Dr. Hijattulah Abdul-Jabbar, and Dr. Munusamy Marimuthu for their insightful guidance, encouragement, and support with their wealth of experience and knowledge all through this work. They treated me like a brother, showed me the genuine professional ethics and for that, I am deeply grateful. I also appreciate the contributions of all my reviewers at the stages of the thesis proposal and Viva Voce whose contributions helped in making this thesis better.

Also, my thanks and prayers go to my wonderful parents who sacrificed their own happiness and comfort to provide a decent life for me and my brothers and sisters. I wish my father could have lived longer to see me holding the Ph.D. degree. I pray for him from the bottom of my heart to be in Heaven, Insha'Allah. My sincere appreciation goes to my wife and kids for their patience and support. I owe appreciation to all my family members and friends who are too many to be mentioned by names for their support, prayers, and encouragement.

Last but not least, I owe a special appreciation to the Palestine Ahliya University and Universiti Utara Malaysia that have supported and facilitated my doctoral study. I sincerely acknowledged that this academic and life experience that I have gained in this beautiful university and this welcoming country had made me a better person in many aspects, thank you all.

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#### LIST OF ABBREVIATIONS

AVE Average Variance Extracted

CA Cronbach's Alpha

CR Composite Reliability

D<sup>2</sup> Mahalanobis Distance

F<sup>2</sup> Effect Size

FPCCIA Federation of Palestinian Chambers of Commerce, Industry and Agriculture

GDIT General Directorate of Income Taxes

GDP Gross Domestic Product

GOF Goodness of Fit

IMF International Monetary Fund

MOF Ministry of Finance
NIS New Israeli Shekels

OECD Organization for Economic Cooperation and Development

PCBS Palestinian Central Bureau of Statistics

PLS-SEM Partial Least Squares Structural Equation Modelling

Q<sup>2</sup> Predictive Relevance

R<sup>2</sup> R-square

SAS Self-Assessment System

SMEs Small and Medium Enterprises

SPSS Statistical Package for Social Sciences

SSE Sum of the Squared Prediction Errors

SSO Sum of the Squared Observations

TTR Total Tax Revenues

VIF Variance Inflation Factor

USD United States Dollars

# CHAPTER ONE INTRODUCTION

#### 1.1 Background of the Study

Fundamentally, the governments generate revenue through tax and non-tax sources to support their projects and expenditure as well as offer services to their citizens (Bird, Martinez-Vazquez & Torgler, 2008; Lymer & Oats, 2009; Alm & Torgler, 2011). Tax revenue has been the oldest and the most sustainable source of revenue globally for governments to cope with their expenditures. Therefore, the majority of the countries' economies depend on taxation (Edwin, 2011; Okauru, 2012; Kira, 2017). In other words, taxation has been the most practical means of sourcing revenue by governments to finance their development projects (Tanzi & Zee, 2001).

According to Torgler (2005), the amount of tax revenue generated by the government depends on several factors. The most important factor is the willingness of the taxpayers to comply with the provisions of the tax laws (Torgler, 2005). However, it has been recognised that some people have an unenthusiastic attitude to pay their taxes. Consequently, it is not easy for the relevant tax authorities to enforce the collection of taxes in many instances (Alm, Martinez-Vazquez & Schneider, 2005). According to McGee, Ho and Li (2008), it is impossible to achieve 100% compliance with tax regulations in all countries. As a result, the failure to follow the provisions of tax laws is an indication that the taxpayer is evading tax (Kirchler, 2007). In this regard, Franzoni (2000) states that tax evasion is the most common and critical problem of tax administration.

Tax evasion is any deliberate illegal act of reducing tax obligation by the taxpayers (Alm, Martinez-Vazquez & McClellan, 2016). Hence, tax evasion also occurs when

taxpayers do not pay their expected share of taxes and fail to comply with the existing tax rules and regulations (Brink & Porcano, 2016). Therefore, tax evasion is a widespread global phenomenon in both developed and developing countries (AlAdham, Abukhadijeh & Qasem, 2016). In the developing countries, tax revenue loss resulting from evasion is proportionally greater compared to the amount in the developed countries due to the presence of the large informal economy (Terkper, 2003). Accordingly, tax evasion phenomenon is considered one of the most important contemporary financial crimes (AlAdham *et al.*, 2016).

The main consequence of tax evasion is the revenue loss for the governments (Abdulrazaq, 1993; Franzoni, 2000; Bott, Cappelen, Sorensen & Tungodden, 2017). In this context, Cobham (2005) estimated that all developing countries lose about USD 285 billion in tax revenue annually as a result of tax evasion. Consequently, tax collections in most of the developing countries face problems which account for insufficient revenues to support public expenditure (Kira, 2017). In 2010, Murphy (2011) states that the tax revenue losses caused by tax evasions in 145 countries reached USD 3.1 trillion, thus constituting 98% of the gross domestic product (GDP).

In Palestine, the administration of income tax is characterized by the increased level of tax evasion (Rahhal, 2017). Since its inception in 1994, the Palestinian Authority's budgets suffered from a high deficit that amounted to more than USD 350 million and the public debt also increased to more than USD 4 billion in 2015 (Rahhal, 2017). This problem is partially associated with the low tax revenues and the dependence of the Palestinian Authority on the international financial aids which have been decreasing recently to finance the public expenditures (Amer, 2016).

In addition, tax evasion indicates substantial government's revenue losses that cause an adverse effect on economic growth (McClellan, 2013). In the same vein, Schneider and Enste (2000) pointed out that this loss of revenue weakens the ability of the governments to provide public services and hinders economic development. Therefore, the level of tax evasion in Palestine is alarming and has contributed to the budget deficit, which amounted to about 30% of the total public expenditure in 2012 (Fallah, 2014).

Although the Palestinian Authority has adopted several measures to increase the tax revenue collection starting from 2008, these attempts have not yielded meaningful outcomes. For example, 10 amendments were made in the income tax law with the aim of increasing the tax revenue. These amendments include the adjustment of tax rates based on tranches and payment of a fixed amount to taxpayers to cover medical expenses, transport, and other service expenses. However, the amendments have not increased the income tax contribution significantly, and have only been able to account for a maximum increase of 8% in the income tax total revenues (Fayek, 2015). This can be observed in Table 1.1 related to the percentages of income tax and the corresponding total tax revenue.

Table 1.1 gives the proportion of income tax revenue to the total tax revenue from 2010 to 2017, thus indicating a decrease from 8% to 6% in 2010 and 2011, respectively. In spite of the increase of 2% in 2012, the proportion remained at 7% in 2013 and 2014, but in 2015 and 2016 a decrease of 1% was witnessed before reaching 6%, and an increase of 2% reached 8% in 2017. These percentages could probably imply that the stagnant level of income tax revenue collection reflects the tax evasion among the income taxpayers.

Table 1.1 *Income Tax and Total Tax Revenues, 2010-2017 (in million USD)* 

Revenue	2010	2011	2012	2013	2014	2015	2016	2017
Income Tax Revenues (ITR) <sup>1</sup>	139	127	154	156	188	179	164	208
Total Tax Revenues(TTR) <sup>2</sup>	1,846	1,998	2,020	2,204	2,652	2,811	2,729	2,722
Income Tax as % of TTR <sup>3</sup>	8%	6%	8%	7%	7%	6%	6%	8%

Source: ¹ITR for 2010 to 2015 were extracted from the Palestinian Ministry of Finance (2011-2016); whereas, revenues for 2016 and 2017 were extracted from Aliqtisadi (2017, 2018), and the amounts herewith are presented in New Israeli Shekels (NIS); ²TTR figures covering from 2010 to 2015 were extracted from Palestinian Central Bureau of Statistics (2016), while the figures for 2016 and 2017 were extracted from Aliqtisadi (2017, 2018), and the amounts are presented in USD. 1USD = NIS 3.8 [caution to be made as the original exchange rate ranged between 3.58 = 3.89]; ³ computed by the author.

Another important statistics indicated that Palestine, compared with the neighbouring countries in terms of income tax revenue as a proportion of total tax revenue, has the lowest proportion. For instance, in 2015, the value was 6% for Palestine which is low compared to its neighbouring countries, namely Jordan, Egypt, and Lebanon with 12.6%, 24.4% and 20% respectively (Sarangi, 2016).

This is also in line with the statement of the Director General of Research in the Palestinian Institute of Economic Research and Policy, Samir Abdullah, who emphasized that the reasons for the low contribution of the income tax revenues are due to the high level of the tax evasion (Abdullah, 2015). Another reason, according to Abdullah (2015), is the high level of tax exemptions in which the Investment Promotion Law No. 2, amended in 2011, gave exemptions to large numbers of companies, especially those operating in the services and information technology. These exemptions are from 3 to 11 years, which lead to a low collection of income tax revenues.

The unique characteristics of the Palestinian tax system resulting from Israeli domination significantly contribute to tax evasion (Elkhafif, Misyef & Elagraa,

2014). This high level of tax evasion has an implication of low-income tax and thus affecting the Palestinian public budget (Rahhal, 2017). Consequently, the Palestinian public budget is incapacitated in generating revenues to cope with public expenditures (Fallah, 2014; Rahhal, 2017).

The decrease of foreign aids to the Palestinian Authority has helped augment the shortfall in the total revenue of the country. Table 1.2 shows that over time, the foreign aids for Palestinian Authority have declined from 2010 to 2017 as highlighted by Amer (2016). This is also confirmed by the data of the Palestine Monetary Authority (2018), whereby the flow of the foreign aid funds is volatile as the percentage of the total revenue declined from 40%, 31% to 29% in 2010, 2011, and 2012, respectively. In spite of the increase in the foreign aid funds in 2013 which reached 37%, foreign aid funds continue decreasing to reach 31%, 22%, 18%, and 16% in 2014, 2015, 2016, and 2017, respectively. This indicates the need for enhancing the internal sources of revenue generation, specifically taxation to complement the Palestinian budget deficit resulting from the decline in foreign aids.

Table 1.2 Foreign Aids as Percentage of the Total Revenue, 2010-2017 (in million USD)

					,		/
Revenue	2010	2011	2012	2013	2014	2015	2016 2017
Foreign Aids	1,210	978	932	1,358	1,230	797	766 720
Total Revenue <sup>1</sup>	3,056	3,154	3,172	3,678	4,022	3,688	4,318 4,372
Foreign Aids as % of Total Revenu	e 40%	31%	29%	37%	31%	22%	18% 16%

Note: <sup>1</sup> The rising total revenue was mostly accounted for by the increase in the amount of Value Added Tax (VAT), from USD 1,234 to USD 2,483 million from 2010 to 2017.

Source: Palestine Monetary Authority (2018)

Another means of reducing the effect of the decline in foreign aids and consequently increasing the tax revenue is by reducing the high level of tax evasion in Palestine.

In other words, the tax evasion among the Palestinian taxpayers need to be addressed in order to enable the government to get source of funds to finance its numerous responsibilities, such as providing the necessary infrastructure and the required health care facilities, investing in human capital, ensuring the security of life and properties, as well as fighting poverty and unemployment.

According to the consultant of the Palestinian Finance Minister, Hatem Yousef, 1% increase in the income tax, contribution would generate a significant amount of USD 100 million in the government's revenue (Youssef, 2014). Thus, the income tax appears to have a high potentiality of tax revenue as indicated by the Minister's advice. Table 1.3 shows the major taxes and their contribution to the total tax revenue. Therefore, these significant issues represent a logical reason for the current study to focus on the income tax.

Table 1.3

Percentage of the Tax Revenue in Palestine for the year 2017

Type of Tax	Percentage of Total Tax Revenue
Income Tax	8%
Value Added Tax	31%
Gasoline Tax	28%
Customs, Excise and Tobaccos Fees	32%
Property Tax	1%

Source: Aliqtisadi (2018)

Due to the high tax evasion in Palestine (Rahhal, 2017) and the decline in the foreign aids (as indicated in Table 1.2), a need arises to investigate the tax evasion behaviour of income taxpayers in Palestine. In other words, the current level of tax evasion in Palestine requires more investigations of the relevant economic and socio-psychological factors that could affect the tax evasion. This would help the tax authority inform the policies to increase the government's revenue.

#### 1.2 Problem Statement

The need for increasing the government's revenue to finance the public budget and the decline of foreign aids for the Palestinian Authority requires enhancing the internal revenue sources such as taxation. However, taxation in Palestine suffers from a high level of tax evasion (Rahhal, 2017). In this regard, tax evasion causes a lot of tax revenue loss which represents the main challenge faced by the Palestinian public budget. The issue of tax evasion in Palestine has been also confirmed by the Finance Minister, Shukri Bishara, stating that a huge level of tax evasion occurs in Palestine (Bishara, 2015). The level of tax evasion has been estimated to be 50% of the total tax revenue (Jaber & Al-Riyahi, 2014).

In addition, during the years from 2010 to 2015, the estimation of tax evasion in Palestine increased from USD 395.8 million to USD 568 million (Rahhal, 2017). More recently, the Coalition for Integrity and Accountability in Palestine reported that the Palestinian treasury losses are approximately USD 500 million annually to tax evasion (Coalition for Accountability and Integrity, 2018). Jaber (2018) estimated that tax evasion in Palestine is between USD 500 and USD 600 million annually. Thus, tax evasion in Palestine remains a basic issue that needs further examinations.

Tax evasion is highly pronounced among the informal businesses, mostly Small and Medium Enterprises (SMEs), and the revenue losses from the tax evasion are of high significance as the loss is estimated from 57% to 88% of the GDP (Sabra, Eltalla & Alfar, 2015). Moreover, Palestine covers only 30% of what it supposed to be collecting (The World Bank, 2016). This leaves a gap of about 70% loss in tax

revenue which could be attributed to tax evasion. Specifically, for evasion related to income tax, the Finance Minister further emphasized that 80% of the society does not pay more than 10% of the income tax (Bishara, 2015).

According to the Palestine Investment Fund (2014), SMEs stand as the backbone of the Palestinian economy. Despite the small size (in terms of number of employees, annual business, and size of capital) of the SMEs based on the Palestinian Council of Ministers (2011), the enterprises significantly contribute to economic growth. Given their large number as 99% of the business taxpayers (Rajab, 2015), the SMEs provide over 55% of the GDP and 85% of the private sector employment (Palestine Investment Fund, 2014). The source also indicated that the SMEs are typically characterized by low capitalization, operational flexibility, low start-up, and operating costs. Although SMEs in Palestine form 99% of the business taxpayers, they contributed only 30% of the income tax revenues which is below what is supposed to be obtained from them (Fallah, 2014). Based on the same source, the large enterprises which constitute only 1% contributed 70% of the total income tax revenues. This specified that numerous SMEs in Palestine are engaged in tax evasion (Sabri, 2010).

There has been an increase in the number of registered SMEs in Palestine annually accompanied by a good profit ratio and rate of return (Sabri, 2008). Also, according to the Palestinian Central Bureau of Statistics (2013), the number of the registered SMEs in Palestine was 88,325 in 2012 and increased to 156,987 enterprises in 2017 (Palestinian Central Bureau of Statistics, 2018). This is expected to increase income tax revenue. On the contrary, the percentage of income tax in total revenue has not

exceeded 8% as stated previously. This contradiction or gap can be attributed to the fact that most firms registered with the tax authority and other regulating entities in Palestine aim at minimizing their tax payments by under-reporting taxable revenues (Fallah, 2014).

With the advent of these enormous challenges, the Palestinian Authority have made several efforts towards improving the tax revenue. Notably, several amendments have been made with respect to the income tax law from 2008 to 2016. These amendments involve the adjustment of tax rates based on tranches and payment of a fixed amount to taxpayers. Similarly, envisaging that the SMEs play an important role due to their numerous strengths, the government through the Palestinian Ministry of Planning also incorporated in its strategic plans to further enhance the growth of the Palestinian SMEs in providing support in areas of finance (Sabri, 2008). However, all these efforts have not yielded the required outcome of increasing the income tax revenue significantly.

Theoretically, tax evasion has attracted the interests of several studies, whereby several predictors of tax evasion involving economic and non-economic factors were identified. To the best knowledge of the researcher, the current study extends the literature by incorporating the direct influence of economic domination, which involves the effect of the Israeli economic control that restricts the ability of the tax administration to ensure tax compliance. This is in line with the suggestion of considering the contextual uniqueness (Trang, Nga & Quang, 2015), and the need for alternative approaches to investigate the complex behaviour of the tax evasion to obtain a better understanding of this issue (Cummings, Martinez-Vazquez, McKee &

Torgler, 2009; Alm, Kirchler & Muehlbacher, 2012; Castro, Guccio & Rizzo, 2014). Thus, it can be argued that economic domination is an important factor that influences the income tax evasion.

In addition, the findings of the previous studies on the relationships between tax evasion and its determinants are to some extent inconsistent (refer to section 2.8). These inconsistent findings imply the need for incorporating a moderating variable as an alternative approach for more understanding of the complex behaviour of the tax evasion (Torgler, Schaffner & Macintyre, 2007; Cummings *et al.*, 2009; Alm *et al.*, 2012; Castro *et al.*, 2014). Thus, the current study aims at widening the understanding of enterprises tax evasion by investigating the moderating effect of the public spirit on the relationship of income tax evasion among the Palestinian SMEs.

Many studies on tax evasion have been conducted in foreign contexts, such as: In USA (Joulfaian, 2000; Alm, Blackwell & Mckee, 2004; Alm & Torgler, 2006; DeBacker, Heim & Tran, 2015). In Europe, other studies were conducted (Feld & Frey, 2006; Tagkalakis, 2008; Tagkalakis, 2013; Poco, Lopes & Silva, 2015; Bott *et al.*, 2017). In Asia and Australia, other studies were conducted (Chan & Lan Mo, 2000; Fisman & Wei, 2004; Evans, Carlon & Massey, 2005; Abdul-Jabbar, 2009; Sapiei & Kasipillai, 2013). In the Middle East, some other studies were conducted (Imam & Jacobs, 2014; Al-Ttaffi & Abdul-Jabbar, 2015; AlAdham *et al.*, 2016).

Despite the existence of the above studies, to the best knowledge of the researcher, limited studies have addressed the issue of tax evasion in the Palestinian context. In addition, only two (2) studies by Rahhal (2014, 2017) and Andriani (2015) focused on individual taxpayers based on social and economic factors. However, these

studies have not considered economic alongside non-economic factors and theories in a single research model study.

Moreover, investigations in previous studies were based on the Economic and Socio-Psychological theories. Therefore, tax evasion remains a complex phenomenon that has not been fully explained by the above theories. In spite of many expansions on Fischer model that depends on the integration between the Economic and the Socio-Psychological theories in tax literature (e.g. Hanefah, 1996; Chau & Leung, 2009; Alabede, 2012), no research has yet incorporated the public spirit as a moderator and the economic domination as an independent variable into the Fischer model.

Thus, these social factors (public spirit and economic domination) are supported by the Socio-Psychological theories, specifically Social Exchange and Social Dominance perspective, respectively, and could be among the main factors that have an effect on the income tax evasion. The significance of these factors in understanding the income tax evasion cannot be eliminated, particularly in the Palestinian context. Hence, the current study extended Fischer model by using the Social Dominance Theory as a supporting theory to the Socio-Psychological theories. Therefore, the current study contributed to the body of literature on tax evasion by investigating the direct relationship of probability of detection, tax penalty, tax fairness, peer influence, tax rate, and corruption on the tax evasion among the Palestinian SMEs. Also, the study investigated the direct relationship of the economic domination on income tax evasion. Finally, the current study examined the moderating effect of the public spirit in the relationship between the income tax evasion and its determinants.

#### 1.3 Research Questions

The main research question is concerned with the determinants of the income tax evasion in the Palestinian SMEs. The specific research questions are:

- 1. Do probability of detection, tax penalty, tax fairness, peer influence, tax rate, corruption, and economic domination have a relationship with the income tax evasion among Palestinian SMEs?
- 2. Does public spirit moderate the relationship between the probability of detection, tax penalty, tax fairness, peer influence, tax rate, and corruption and income tax evasion among Palestinian SMEs?

#### 1.4 Research Objectives

The main research objective is to investigate the determinants of income tax evasion in the Palestinian SMEs. The specific research objectives are as follows: To examine

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- To examine the direct relationship of probability of detection, tax penalty, tax fairness, peer influence, tax rate, corruption and economic domination on the income tax evasion among Palestinian SMEs.
- To examine whether public spirit moderates the relationship between probability
  of detection, tax penalty, tax fairness, peer influence, tax rate, corruption and
  income tax evasion among Palestinian SMEs.

#### 1.5 Scope of the Study

The current study focused on SMEs in Palestine since these SMEs represent 99% of all enterprises in Palestine (Rajab, 2015). Even though the statistics about the proportion of SMEs' tax contribution is not publicly available, it is expected that tax collections from SMEs could significantly contribute to tax revenue.

Palestine is divided into the West Bank and Gaza regions (see Figure 2.1). The West Bank region is controlled by the Palestinian Authority and most SMEs operate there (Palestinian Central Bureau of Statistics, 2018). On the other hand, Gaza is characterized by a high level of instability because of the conflict with Israel. It is impossible for Palestinians from the West Bank to enter the Gaza Strip without the Israeli permissions since 1993 (Smeirat, 2013). In addition, Israel has placed Gaza under a blockade which restricts the movement of the citizens (Chilvers, Abu Kwaik & Morrissey, 2017). Hence, the current study excludes Gaza Strip in its scope and focuses only on the West Bank region of Palestine.

The respondents of the current study are the owners or managers of the selected SMEs in the West Bank region in Palestine in the year 2017. The rationale behind the selection of the owners-managers as respondents are connected with the fact that these respondents are in the best position to provide information regarding their business tax compliance decision.

#### 1.6 Significance of the Study

The findings of the current study would contribute to the body of knowledge in order to bridge the gap related to the issue of tax evasion. The findings on the issue of tax evasion were supported by providing theoretical and practical explanations. Thus, the current study incorporates a new direct variable which is the effect of the economic domination for a better understanding of the complex phenomenon of tax evasion (Castro *et al.*, 2014; Brink & Porcano, 2016). In addition, given the inconsistent findings of the prior studies as highlighted by Kirchler, Muehlbacher, Kastlunger and Wahl (2007), the discrepancy in the research results concerning the relationship between tax evasion and some of its determinants indicates that certain variables may moderate the relationship. Therefore, the current study incorporates the moderating effect of the public spirit.

Moreover, the model of the current study includes variables from the economic and socio-psychological perspectives for a better understanding of tax evasion in the Palestinian context. These factors (probability of detection, tax penalty, tax fairness, peer influence, tax rate, and corruption) are incorporated into the model based on the suggestions of several studies (Andreoni, Erard & Feinstein, 1998; Bilotkach, 2006; Murphy, 2007; Cummings *et al.*, 2009; Alm *et al.*, 2012; Rahhal, 2014; Khlif, Guidara & Hussainey, 2016; Tan & Liu, 2016; Alleyne & Harris, 2017).

The current study supports its model using a theory from both the economic and the non-economic perspectives for a comprehensive understanding of the tax evasion among the Palestinian SMEs taxpayers. Studies conducted in the Palestinian context (Rahhal, 2014, 2017; Andriani, 2015) focused on the social and the economic factors in isolation without combining theories from the economic and non-economic perspectives, whereas the current study combined the economic and the non-economic factors together into a single research model.

Also, Fischer model is supported by the Deterrence Theory and the Socio-Psychological theories. Thus, the current study extended Fischer model by incorporating the Social Dominance Theory. Also, the current study is considered the first to test the Social Dominance Theory as a supporting theory to the Socio-Psychological theories in the tax context and in Fischer model particularly. Similarly, the previous studies concentrated on individual taxpayers in the Palestinian context, whereas the current study extended using Fischer model by focusing on the SMEs taxpayers for understanding the tax evasion in Palestine.

In relation to policy, the current study could provide great significance to the Palestinian tax authority in finding empirical explanations for the tax evasion phenomenon in Palestine. Therefore, the current study could probably provide an insight into the influence of the economic as well as the socio-psychological factors on the income tax evasion of the SMEs taxpayers in Palestine. In addition, the findings of the current study would assist the tax authorities of other developing countries regarding the most important factors effecting tax evasion. Hence, improving the tax administrations knowledge regarding tax evasion factors will help them for a better understanding of tax evasion phenomena.

In addition, in order to avoid making wrong decisions, policy makers require reliable empirical findings on the factors that determine tax evasion. Hence, the current study provides robust empirical findings about tax evasion that are relevant to formulating suitable policies to prevent tax evasion in Palestine to improve tax revenue in the country, specifically Palestine which is faced by an increasing budget deficit in recent years.

#### 1.7 Thesis Structure

The current study comprises five (5) chapters. The First Chapter provides an introduction to the study. The introduction starts with the background of the study. It explains that although tax evasion is a general problem in the developed and developing countries, its effects are more prominent in the developing countries and Palestine is not an exception. The next section discusses the problem statement, which presents the research gaps. Then, the research objectives, the research questions, the scope of the study, and the significance of the study were discussed. Chapter Two reviews the relevant literature on tax evasion. The chapter starts with reviews of studies on tax evasion and its determinants. The chapter further discusses the underpinning theories of the study. Chapter Three involves the methodology which discusses the research framework, hypotheses development, and the moderating effect of the public spirit. The chapter further discusses the research design, the operational definitions, measurements of the variables, the data collection, and the data analysis techniques. Chapter Four discusses the data analyses and the findings obtained from the data collection. Finally, Chapter Five provides discussions of the findings and a conclusion. The chapter further adds recommendations for future studies.

## CHAPTER TWO LITERATURE REVIEW

#### 2.1 Introduction

Chapter Two presents an overview regarding the Palestinian context and tax system, starting with the background of the Palestinian tax system and a detailed description of the income tax. In addition, the definitions of small and medium enterprises (SMEs) are presented in this chapter. This chapter reviews the determinants of tax evasion based on the variables of a research framework that are probability of detection, tax penalty, tax fairness, peer influence, tax rate, corruption, public spirit, and economic domination. It also discusses the relevant theories including the Economic, Socio-Psychological and Social Dominance theories.

#### 2.2 An Overview of Palestine

Palestine is a developing Western Asian country that is geographically situated between the Jordan Stream and the Mediterranean Sea. Its population is about 4,884,336 inhabitants (Palestinian Central Bureau of Statistics, 2017) and covers a total area of 27,009 square kilometres (Local Government in Palestine, 2017). Palestine authority that was established after the Oslo Accord in the West Bank and Gaza Strip in 1994 controls 22% (6,020 Sq Km) of the original landmass, whereas the balance of 78% is controlled by the state of Israel who occupied the area since 1948 when the Palestinian Arabs were expelled from their homes (Local Government in Palestine, 2017).

In 1967, Israel occupied the terrains of the Gaza Strip and the West Bank and both have remained under full Israeli military and civil control. Thus, the land, sea, and

air crossings that connect Palestine with the whole world are completely controlled by the Israeli Authority. What complicates the situation and increases the sufferings of the Palestinians is building the separation wall by the Israeli Government in the West Bank region (Zomar, Hirbawi & Rock, 2012). Palestine has 16 governorates; 11 governorates are in the West Bank region, and five (5) governorates are in the Gaza Strip. The following map demonstrates the two (2) regions of Palestine and the governorates in each.

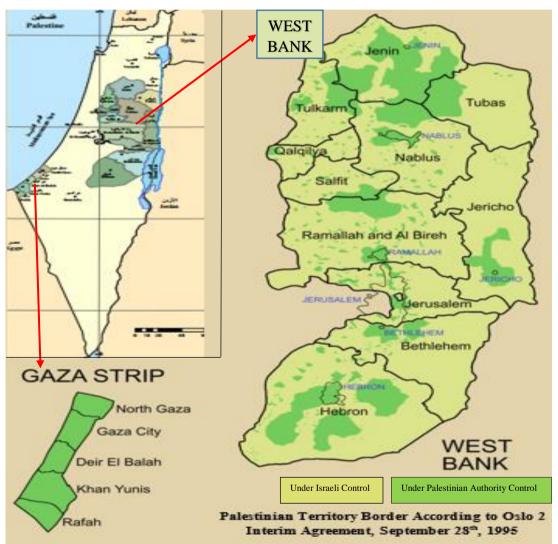


Figure 2.1 *Map of Palestine* 

Source: Palestinian Central Bureau of Statistics (2011)

The Arabic language is the official language, whereas English although it is spoken, but it is considered a foreign language. In Palestine, the parliamentary-presidential regime is adopted. As for the economy of Palestine, lack of the government's control and power over the financial resources causes major imbalances. Therefore, Palestine's economy is mostly dependent on foreign aids which in recent years decreased due to the political situations in the Arab and international arena (Amer, 2016).

#### 2.3 Palestinian Income Tax Law

Palestine has a unique tax system given the fact that the system evolved from the United Kingdom, Jordan and Israel. Currently, the Palestinian tax system includes five (5) types of taxes administered by respective directorates, namely the General Directorate of Income Taxes, the General Directorate of Property taxes, the General Directorate of Customs, Excise and Tobaccos, the General Directorate of Value Added Tax and the General Directorate of Petroleum. All the directorates are under the Council of Tax Administration of the Ministry of Finance. As the current study focuses on the income tax, further discussions would emphasis on income tax.

Income tax was imposed for the first time in Palestine during the British mandate. The Income Tax Act No. 23 of 1941 was enforced in 1941. Later, it was repealed and replaced with Income Tax Act No. 13 of 1947 which entered into effect in 1947 (Abdel-Karim, Said & Abu-Hantash, 2015). After the end of the British occupation, the West Bank region has become under the administration of the Jordanian government and the Law of Income Tax No. 50 of 1951 was issued by the Jordanian government, which unified tax legislation in Jordan and the West Bank region. Later,

the Income Tax Law (No. 50 of 1951) was abolished and replaced with the Jordanian Income Tax Law No. 12 of 1954, which exempted income tax for Jordanians and Palestinians whom are non-resident, reduction the tax rates in the progressive tax (Hzaymeh, 1983).

According to Hzaymeh (1983), great development in taxation comes from Income Tax Law No. 25 of 1964, which repealed the previous law, expanded the tax base and imposed high tax rates for high income and formation of court for income tax appeals with the main task of hearing task disputes. In the Gaza Strip, Income Tax Act No. 17 of 1947 remained in force. This law had some differences from the Jordanian law effective in the West Bank region. For example, while the Jordanian law considered the incomes of the husband and wife as one (1) taxable income, the British law in Gaza assess the two (2) incomes separately (Abdel-Karim *et al.*, 2015).

Following its occupation of the West Bank and Gaza Strip in 1967, Israel changed the tax system in the newly seized territories through a set of military orders, particularly Ordinance No. 2 (June 7, 1967), which stipulated that all taxes shall be paid to the chief commander of the Israeli military (Alawna, 1992). Shortly after that, Military Order No. 28 gave the official appointed by the chief commander the responsibility of tax collection (under the Income Tax Act) and with full powers to appoint officials— for Palestinian territories— with powers he deems appropriate (Alawna, 1992). To further pressure Palestinian taxpayers, the Israeli amendments to the two (2) laws in effect in the West Bank and Gaza (the Jordanian and the British Mandate, respectively) in terms of targeted tax brackets and rates, as well as the year

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of estimation and method of collection. The military orders gave the 'military committees' full powers over tax committees and tax courts of appeal (Abdel-Karim *et al.*, 2015).

The changes on tax legislation were basically meant to increase funds to the state coffers and narrow the gap existing between the tax system applied in Israel and its occupied Palestinian territories (Abdel-Karim *et al.*, 2015). These changes were also intended to further the occupier's de facto policies, which generally aim to suffocate the Palestinian productive sectors. The arbitrary tax policy during nearly three (3) decades was instrumental to undermining the existing and potential investments and putting a spanner in the economic activity, thus keeping the Palestinian economy fragile and dependent on that of Israel. According to Abu-Shukr, Saleh and Alawna (1991) under the new amendments, income tax was imposed on companies and factories, with a corporate income tax of 38.5 percent. Further, important allowable deductions such as death and retirement granting, amounts to insurance funds, and bad debts were removed, that creates some difficulty for the existing factories as well as for the potential investors refrain from setting up new factories.

Upon its inception in 1994, the Palestinian Authority had to run two (2) legal/administrative income tax systems: The British mandate Income Tax Act No. 13 of 1947 in Gaza and the Jordanian Income Tax Law No. 25 of 1964 in the West Bank region. The Palestinian Authority then encountered difficulty in applying two (2) different laws (with clear differences in texts and management procedures). The Palestinian Authority endeavoured more than once to enact a single Income Tax Law, but it was 10 years later (in 2004) that the Palestinian Authority implemented

the Income Tax Law No. 17 of 2004, national unified tax law for the West Bank and the Gaza Strip.

The Income Tax Law No. 17 of 2004 was in lieu of:

- a) The Jordanian Income Tax Law No. 25 of 1964, effective in the West Bank region.
- b) Income Tax Act No. 13 of 1947 (Mandatory Palestine) effective in the Gaza Strip.
- c) Israeli military orders issued since June 1967.

Since the implementation of the Income Tax Law No. 17 in 2004, emerged many of problems have a negative influence on the private sector and foreign investment; objections by individual/business taxpayers; and high-level tax evasion (Abdel-Karim *et al.*, 2015), these were reasons for substantial amendments were thus made under the Presidential Decree No. 2 of 2008.

According to Income Tax Law in Palestine (2008), the Decree amended 14 Articles of the original law, particularly tax brackets, rates and types of exemptions. The tax rates of 8%, 12% and 16% were lowered to 5%, 10% and 15%, respectively. Under the 2004 law, the individual residents and their family were tax-exempt from house purchasing, medical treatment, university fees, and contributions to pension funds. While in 2008 law gave the taxpayers a fixed amount of USD 7,200 (equivalent to 24,000 New Israeli Shekels (NIS)). As well as, 2008 law provided 10% of annual income as an allowable tax deduction for the taxpayer's transport and contribution to the employee pension funds. Although the amendments were welcomed by businesses community, their goals have not achieved in increasing the Palestinian Authority generation of income tax revenue, due to the economic and social

conditions deteriorating resulting from Israeli domination (Abdel-Karim *et al.*, 2015).

The tax policy continued to be weak and uncertain, which in early 2011 produced a new amendment Law No. 8 of 2011. The most important amendments on the previous Income Tax Law No. 2 of 2008, the tax shall be levied and collected in NIS instead of US dollars; the amendments gave the Council of Ministers the right to change rates and/or brackets of income tax; the law gave the taxpayers a fixed amount of 30,000 NIS; and the law repealed the exemptions of the farmers' incomes (Income Tax Law in Palestine, 2011).

Based on the powers granted by the 2011 Law, the Council of Ministers proposed in early 2012 increasing the number of tax brackets from three (3) to five (5) which are 22.5% and 30% for high-income earners. The proposed amendments triggered a wave of discontent among taxpayers before the amendments were published to the public (Abdel-Karim *et al.*, 2015). This stirred debate, forcing the government to enter into an open dialogue with representatives of the private and civil sectors. After a lengthy debate, they reached a compromise which abolished the two (2) proposed brackets, replacing them with a fourth bracket with a rate of 20%. The 2012 amendment thus set tax rates at 5%, 10%, 15% and 20%.

In March 2014, the Palestinian Authority issued a Decree with some limited amendments to the original Law No. 2 of 2008. The No. 4 of 2014 amendment regranted the 100% exemption for capital gains profits arising from assets and securities (which were reduced to 25% in the previous amendment). The amendment

also imposed a tax of 10% on the profits of micro-finance and a similar rate on dividends, whether cash payments or shares of stock.

In late March 2015, the Palestinian Authority released an amendment on Law No. 4 of 2014. According to Income Tax Law No. 5 of 2015, the law gave the taxpayers a fixed amount of 36,000 NIS. The tax brackets have been lowered; the 20% rate has been lowered to 15% for individuals and 20% rate for monopoly companies only such as communications companies. In July 2016, the agricultural sector is excluded from the income tax, whereas enterprises that import agricultural equipment and tools are classified under the trade sector (Income Tax Law in Palestine, 2016). The main amendments in Palestinian Income Tax Law were summarised as shown in



Table 2.1

The Amendments on the Palestinian Income Tax Law, 2008-2016

Years	Tax Brackets	Tax Rate	Amendments and Exemptions
2008	USD 1-10,000 USD 10,001-16,000 USD 16,001 and above	5% 10% 15%	The tax rates of 8%, 12% and 16% are subject to a reduced tax rate of 5%, 10% and 15%, respectively. Within the meaning of the law, taxpayers are offered a fixed amount of USD 7,200, and 10% of annual income is provided for the taxpayer's transport and contribution to the employee pension funds.
2011	NIS 1-40,000 NIS 40,001-80,000 NIS 80,001 and above	5% 10% 15%	The tax shall be calculated in NIS not in dollars; and the law grants power to the Council of Ministers to justify rates and/or brackets of income tax. The law provided the taxpayers with a fixed amount of NIS 30,000, and repealed the exemptions of the farmers' incomes.
2012	NIS 1-40,000 NIS 40,001-80,000 NIS 80,001-125,000 NIS 125,001 and above	5% 10% 15% 20%	JM
2014	Unit No amendments	versiti Uta No amendments	The standard rate of exemption for capital gains profits arising from assets and securities is 100%. A tax of 10% is also imposed by the amendment on the profits of micro-finance and dividends, whether cash payments or shares of stock.
2015	NIS 1-75,000 NIS 75,001-150,000 NIS 150,001 and above Monopoly Companies	5% 10% 15% 20%	Taxpayers are provided a fixed amount of NIS 36,000 under law. The ranges of tax brackets have been adjusted. For individuals, the rate has been lowered to 15% and 20% for monopoly companies.
2016	No amendments	No amendments	The agricultural sector is excluded from the income tax, whereas enterprises that import agricultural equipment and tools are classified under the trade sector.

<sup>\*</sup>Note: Amendment of 2008 used USD formal currency. The NIS formal currency is used for tax purposes since the amendment of 2011; USD 1 = NIS 3.8.

Source: Palestinian Income Tax Laws (2008-2016)

#### 2.4 Taxation of SMEs in Palestine

All income taxes in Palestine are governed by the Income Tax Law (8) 2011. According to chapter one (1), Article one (1) of the Income Tax Law (8) 2011, the income taxpayers are categorized into two (2) major groups. The first group is the legal person. This includes all corporate taxpayers such as Public Shareholding Companies, Limited Liability Companies, Companies Limited by Shares and Foreign Companies. Chapter four (4) article 16 (2) of the law stated that all corporate taxpayers are required to pay a tax of 15% of taxable income. The second group is the natural person including individual and business taxpayers; sole proprietorship, partnership, and limited partnership are examples of business taxpayers which are taxed-based on the income from their business. In Palestine, all SMEs fall into the second group of the taxpayers. According to chapter four (4) article 16 (1), the income tax of the second group is paid based on the following tranches as presented in Table 2.2. The current study focused on SMEs taxpayers who pay taxes based on their business income. According to Rajab (2015), the percentage of SMEs is 99% of the total enterprise in Palestine. Hence, SMEs taxpayers file a tax return based on the income from their business organizations.

Table 2.2 Income Tax Brackets of Palestinian Individual Taxpayers

Tax Brackets (in NIS*)	Tax rate
1 to 75,000	5 %
75,001 to 150,000	10%
150,001 and above	15%

\*Note: The income tax law specified the amount in NIS.

Source: Income Tax Law in Palestine, 2015 (as amended)

Moreover, the business taxpayers pay their income tax based on Self-Assessment System (SAS) as specified by chapter five (5) article 17 (1) of the income tax law. The businesses are required to file a return every year specifying all incomes and expenses, and also remit their taxes to the designated banks.

### 2.5 The Palestinian SMEs and Contribution to the Economy

The Palestinian National Authority has adopted the definition of SMEs in Palestine as set forth by the Ministry of National Economy, pursuant to the Cabinet decision dated four (4) October 2011 number (01/105/13/مناوره), Article two (2), the year 2011, as follows:

Table 2.3

Types of Business Enterprises by Size

<b>Business Size</b>	Labour	<b>Annual Business</b> (USD*)	Capital (USD*)
Micro	1-4	up to 20,000	up to 5,000
Small	5-9	20,001 up to 200,000	5,001 up to 50,000
Medium	10-19	200,001 up to 500,000	50,001 up to 100,000
Large	20 more	500,001 more	100,001 more

\*Note: The resolution of Palestinian Council of Ministers specified the amount in USD.

Source: Palestinian Council of Ministers (2011)

According to Palestinian Council of Ministers (2011), the classification of the size businesses is based on having two (2) standards out of three (3), which are the number of the workers, the annual monetary activity and the capital for each.

In most developing countries such as Palestine, SMEs play a major role in their economic growth (Bayyoud & Sayyad, 2016). Hence, the number of SMEs is important to the contribution to the GDP. For instance, the number of SMEs in Palestine had reached 156,987 in 2017 (Palestinian Central Bureau of Statistics, 2018). SMEs constitute 99% of business entities, employ 85% of the country's

workforce, and contributes 55% to the GDP of Palestine (Palestine Investment Fund, 2014). As a result of this significant contribution and the strategic importance of the SMEs, more especially on the GDP of Palestine, the performance and prosperity of the economy have relied on SMEs.

SMEs are considered one of the most important pillars for the economic advancement of nations (Bayyoud & Sayyad, 2016). Thus, the major threat to a nation's economy is dependent too much on the performance of SMEs. The major features of SMEs are the small venture capital required, providing employment to the owners and some unskilled and semi-skilled workers, the low risk for their start and operations cost, on the job training for its workers, which results in improved productivity and boost nation income generation (Ademola & Michael, 2012). They are considered as the instrument to be utilised for economic growth. As a result of the nature of their private ownership, their entrepreneurial spirit which leads to their flexibility, makes it easy for them to quickly react to the dynamic environments that they operate and much easier to generate more employment and contribute to the sustainability of the economy in general (Ademola & Michael, 2012).

According to Sabri (1998), there are some advantages to Palestinian SMEs. These advantages tend to be in higher productivity, higher inventory turnover and higher assets turnover ratio recorded in SMEs than in large scale corporations. Hence, acknowledging this strategic importance of the SMEs, the government through the Palestinian Ministry of Planning has incorporated in its strategic plans to further enhance the growth of the Palestinian SMEs in providing support in areas of finance (Sabri, 2008).

#### 2.6 Tax Evasion

In this section, tax evasion is the dependent variable of the current study, is discussed under two (2) subsections, the concept and definition of tax evasion and review of the previous literature on tax evasion.

#### 2.6.1 Concept and Definition of Tax Evasion

Tax evasion refers to any deliberate illegal act of reducing or totally circumventing the payment of tax obligation by a taxpayer (Alm *et al.*, 2016; Alm, Liu & Zhang, 2018). Manea (2011) defines tax evasion as following an unlawful way taken by the taxpayer to diminish tax liability. The above definitions are in line with the classical model of tax evasion (Allingham & Sandmo, 1972; Srinivasan, 1973) which considered tax evasion as involving illegal means for reducing tax liability punishable by law. Sandmo (2005) opines that tax evasion implies the violation of the provisions of tax laws by a taxpayer by not reporting the actual income that is to be taxed according to the law. It can be also referred to as the act of hiding the actual value of a transaction to avoid the obligation of paying taxes (Andreoni *et al.*, 1998).

The present study focused on tax evasion, as against tax non-compliance, because the level of tax evasion in Palestine is high as indicated by prior sources (e.g. Bishara, 2015; The World Bank, 2016; Rahhal, 2017), whereby tax non-compliance denotes taxpayer's failure to pay the taxes intentionally or unintentionally (James & Alley, 2004). Hence, non-compliance implies wider conceptualization by including both intentional and non-intentional non-payment of taxes. In this regard, McKerchar (2002) emphasized that taxpayers in some cases engage in tax non-compliance unintentionally, for instance, due to the complexity of tax law.

Therefore, the current study aims at investigating the intentional and illegal specific acts of underreporting income and overstating expenses which denote tax evasion.

#### 2.6.2 Studies on Determinants of Tax Evasion

Tax evasion is considered a crucial issue threatening the performance of the governments in various countries, as it has made some governments face financial challenges which, in turn, jeopardize the implementation of sound economic policies and the provision of essential products and services to the citizens (Pirttila, 1999). The consequence of this would be fiscal deficits and result in seeking loans from other countries or financial institutions, such as the International Monetary Fund (IMF). Accordingly, the consequent strain is imposed on the already fragile developing economies of Palestine.

In spite of, tax builds the government's capability in providing public goods such as security of lives and properties, satisfying the basic human needs, and ensuring the economic prosperity of the society (McClellan, 2013). But tax evasion has been shown as a challenge that faced governments all over the world in providing such public goods (Alleyne & Harris, 2017).

In a nutshell, tax evasion is a financial crime and its perpetrators are criminals (AlAdham *et al.*, 2016). According to Brink and Porcano (2016), a taxpayer deliberately fails to pay the tax obligation as provided by tax rules and regulations. Studies have confirmed that the loss in revenue as a result of tax evasion is higher in the developing countries than in the developed world as a result of the prevalence of the hidden economy (informal sector) in the developing countries (Terkper, 2003).

Among the early and initial scholarly investigations on tax evasion determinants were by Allingham and Sandmo (1972), which were based on Becker's (1968) Deterrence Theory, in developing a classical model of tax compliance. One of the earliest outstanding and authoritative review of tax evasion literature on the key determinants of tax evasion is by Jackson and Milliron (1986), which revealed that there are 14 key predictors of tax compliance. A more recent review by Richardson and Sawyer (2001) and Khlif and Achek (2015) identified additional variables and various methodological approaches in investigating tax evasion. Generally, the determinants are classified into demographic, economic, legal and institutional, cultural and behavioural and as well as behavioural factors. The classification implies economic and non-economic determinants of tax evasion. These reviews emphasized the need for reconciling the inconsistent findings in the previous studies by incorporating moderating variables in future studies (Kirchler et al., 2007). Many of the reviewed studies investigated specific determinants of tax evasion in different contexts as shown below.

Studies, such as Friedland, Maital and Reuentberg (1978); Dubin and Wilde (1988); Alm, Jackson and McKee (1992); Tauchen, Witte and Beron (1993); Slemrod, Blumenthal and Christian (2001); Feld and Frey (2006); Ayers, Seidman and Towery (2015) and DeBacker *et al.* (2015), have indicated economic variables such as probability of detection, tax penalty, and tax rate as determinants of tax evasion, although these studies reported some inconsistent findings. In addition, other studies focused on non-economic variables such as tax fairness (e.g. Chan *et al.*, 2000; Belay & Viswanadham, 2016; Puspita, Subroto & Baridwan, 2016), and corruption

(e.g. Torgler, 2005; Torgler & Schneider, 2007; Alm *et al.*, 2016), have been recognized as significant predictors of tax evasion.

Previous studies (e.g. Cullis & Lewis, 1997; Bobek & Hatfield, 2003; Tsakumis *et al.*, 2007; Palil, Zain & Faizal, 2012; Alm *et al.*, 2016) identified peer influence as a predictor of tax evasion, but inconsistent findings were reported. With regards to the relationship between tax rates and tax evasion, Alm, Bahl and Murray (1990); Alm *et al.* (1992); Martinez-Vazquez and Rider (2005) and Rahhal (2017) signified tax rates as one of the factors that influence tax evasion. Several studies also have indicated the relationship between corruption and tax evasion. McGee and Maranjyan (2006) found that a significant number of respondents engage in tax evasion for corrupt reasons. Picur and Riahi-Belkaoui (2006) reported the effect of corruption on tax evasion in the cross country study. Bilotkach (2006) found that corruption among tax authority staff significantly affects tax evasion.

Pertinent to the current study, three (3) studies in Palestine provided some evidence on the determinants of tax evasion (Rahhal, 2014, 2017; Anderiani, 2015). These studies focused on economic and non-economic factors in isolation based on individual taxpayers. These studies did not combine theories from the economic and the non-economic perspectives and did not combine the economic and non-economic factors together in a single research model.

Furthermore, the literature indicated that the findings on the evasion and its determinants have been inconsistent. For example, Rice (1992) and Joulfaian (2000) found that the tax rate influences tax evasion; whereas, Kamdar (1997) found no relationship. Wenzel (2002) and Sapiei, Kasipillai and Eze (2014) reported that tax

fairness has a significant relationship with tax evasion; however, Abdul-Jabbar (2009) found no relationship. Feld and Frey (2006) and Gemmell and Ratto (2017) reported that the tax penalties influence tax evasion; while, Pommerehne and Weck-Hannemann (1996) and Kamdar (1997) found no relationship.

In summary, the above discussion indicates that tax evasion has received research attention in foreign contexts, whereby the relationship between tax evasion and its determinants has been inconsistent. In addition, the studies on tax evasion investigated various determinants including economic and non-economic factors for examining tax evasion. Therefore, more studies are required to understand the determinants of tax evasion in developing countries like Palestine, which suffered from a high level of tax evasion as indicated by prior sources (e.g. Bishara, 2015; The World Bank, 2016; Rahhal, 2017).

# 2.7 Related Theories

A logical scientific study should be underpinned by theories to serve as its foundation (Sinclair, 2007). Thus, Sinclair (2007) states that reviewing the relevant theories provides the researcher with answers to important questions related to the phenomenon under investigation. The Deterrence Theory and the Socio-Psychological theories through Fischer model are used to underpin the relationships among the variables of the current study. The Social Dominance Theory is also employed in the current study to support the Socio-Psychological theories. The Socio-Psychological approach consists of the Social Exchange, Social Influence, and Social Dominance theories. Tax evasion studies involved many disciplines, such as economic, accounting, sociology, and psychology. As such, theories of tax evasion originated from diverse sources.

Fischer model is considered the best model used in the tax literature due to its dependence on integrating between the economic and social psychological factors (Fischer *et al.*, 1992). Andreoni *et al.* (1998) and Sapiei *et al.* (2014) integrated between the economic and social psychological factors which play a main role in understanding the tax evasion behaviour. Jackson and Milliron (1986) indicated that the Deterrence Theory is insufficient in explaining the tax compliance behaviour, as well as tax rate, tax audit, and tax penalty are not the only factors affecting the compliance behaviour. 14 factors were identified and categorized into four (4) groups, as shown in Figure 2.2. The four (4) groups show that Fischer model includes four (4) categories based on the socio-psychological and economic approaches: 1) demographic (age, gender and education), 2) non-compliance opportunity (income level, income source and occupation), 3) attitudes and perceptions (tax moral, tax fairness, and peer influence), 4) tax system/structure (complexity of the tax system, probability of detection, tax penalties, and tax rates).

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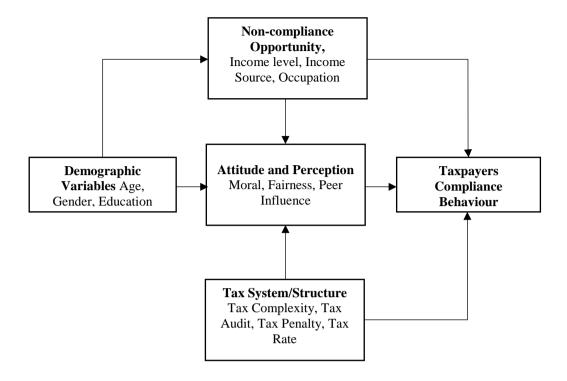


Figure 2.2 Fischer Tax Compliance Model

Source: Fischer, Wartick and Mark (1992)

There are many theories related to tax evasion such as the Theory Planned Behaviour, the theory of cognitive and prospect that are considered important theories which originated from psychology or sociology perspective. The current study used Fischer model based on the reasons mentioned earlier.

Based on reviewing the literature, it has been concluded that many factors could probably influence the tax evasion. This makes the use of one (1) theory insufficient to explain the tax evasion. Consequently, it is established that theories from economic, sociology, psychology, and anthropology are quite relevant in explaining the tax evasion behaviour (Jackson & Milliron, 1986; Alm, 1991, 1999; Devos, 2007). The next sections explain the two (2) main theories underpinning the current

study (by way of Fischer model) and Social Dominance Theory supporting the Social-Psychological theories.

# 2.7.1 Deterrence Theory

The Deterrence Theory has its foundations in the Economics-of-Crime-Approach, which originated from Becker (1968). The theory postulates that the behaviour of people is normally influenced by the expected rewards or cost of the behaviour. The theory explains the deterrent effect of sanctions and other forms of punishments on the unlawful conducts. The theory postulates that humans analyse crime based on the differences in the cost-benefit of crime rather than differences in the motivational factors.

It is confirmed from the literature that deterrence can be classified into two (2); the general deterrence and the specific deterrence. The general deterrence is defined as the deterrent consequence of possible punishments, while the specific deterrence is referred to as the deterrent consequence of the real punishment that is imposed meted on the person that actually demonstrated the criminal actions. From the two (2) types of deterrence, Jackson and Milliron (1986) found that general deterrence has been employed in most of the research conducted on tax evasion. Hanefah (2007) stated that the main principle of Deterrence Theory could be summarized to mean that a high probability of detection or high sanctions are the major deterrents that make people keep away from committing criminal activities.

In the study of tax evasion behaviour, the Deterrence Theory was first used by Allingham and Sandmo (1972). According to Allingham and Sandmo (1972), taxpayers decision on tax evasion is based on the rational choice on uncertainty and

risk. Hence, decisions are made based on the potential cost and/or benefit of tax evasion. Hamm (1995) stated taxpayers based their decision on either to comply or not on simple economic self-interest scrutiny. In brief taxpayer's decision on tax compliance on the basis of the Deterrence Theory, is based on the following four (4) variables, viz: The taxpayer's income, the tax rate, the probability of audit detection and the tax penalty rate of evasion.

Several studies on tax compliance have used the Deterrence Theory in their numerous scholarly investigations, such as (Dubin, Graetz & Wilde, 1987; Sternburg, 1993; Alm *et al.*, 1995; Slemrod *et al.*, 2001; Feld & Frey, 2003; Manaf, 2004; Wenzel, 2004; Martinez-Vazquez & Rider, 2005; Murphy, 2007), and have reported mixed findings. Some studies like Dubin *et al.* (1987), Alm *et al.* (1995), Slemrod *et al.* (2001), Wenzel (2004), and Murphy (2007) revealed that there is a significant relationship between tax evasion and audit and tax penalty, while Feld and Frey (2003) and Martinez-Vazquez and Rider (2005) revealed a negative relationship.

The empirical examination of tax evasion has gained prominence. It has been noted that most of the early studies have focused on the economic deterrence models rather than other models (Riahi-Belkaoui, 2004). It has been argued in some studies that deterrence may not provide a comprehensive explanation of tax evasion (Torgler, 2003b; Torgler, Demir, Macintyre & Schaffner, 2008; Slemrod, 2009), because the Deterrence Theory focuses basically on the solely economic factors and does not consider other factors, such as the psychological and the social factors. Other models incorporating social and psychological factors were developed by several studies (Fischer *et al.*, 1992; Chan, Troutman & O'Bryan, 2000; Manaf, 2004; Kirchler *et* 

al., 2008). In this regard, Alm (1999) has argued that there is no comprehensive model or theory that encompasses all tax evasion determinants.

## 2.7.2 Socio-Psychological Theories

In line with the submissions of Jackson and Milliron (1986), Alm (1999), and Devos (2007) that tax evasion is beyond the explanation of the economic theories alone, relevant theories from psychology and sociology have been incorporated to explain non-economic factors influencing the tax evasion. Psychologists and sociologists are interested in factors like tax fairness, peer influence, corruption, and public spirit. Hence, the Social Influence Theory, the Social Exchange Theory, and the Social Dominance Theory are the Socio-Psychological theories that were used in developing the model of the current study.

# 2.7.2.1 Social Influence Theory

The Social Influence Theory, which was proposed by Kelman (1958) and improved by Kelman (1974) and Bandura (1977), refers to the individual's emotions, opinions or behaviours when affected by others (Sussman & Gifford, 2013). The theory postulates that the environment influences behaviour, as well as knowingly or unknowingly environment and its inhabitants influence the behaviour. In other words, the human behaviour is shaped through modelling, imitation, and observation of others in a given environment, and is further explained by its relationship to the cognitive and behavioural environmental effects on a constant reciprocal interaction. In this regard, Bandura (1977) demonstrated that human learning is not only achieved by observing the behaviour of others but also shaped by the consequences of their attitudes. In addition, Crisp and Turner (2007) suggested that social

influence is concerned with how our thoughts, feelings, and behaviour change in the presence of others.

Social influence is a broad term that relates to many different phenomena. It is linked to conformity, obedience, and compliance. Conformity is a type of social influence involving a change in behaviour, belief or thinking to align with those of others or to align with normative standards. It is the most common and pervasive form of social influence (Aronson, Akert & Wilson, 2010). Obedience is a form of social influence that is derived from an authority figure. According to Frager (1970), it is evidenced that humans behave surprisingly obedient in the presence of perceived legitimate authority figures.

Kelman (1958) identified three (3) varieties of social influence:

- 1) Compliance is when people appear to agree with others, but actually, keep their dissenting opinions private;
- 2) Identification is when people are influenced by someone who is liked and respected, such as a famous celebrity and;
- 3) Internalization is when people accept a belief or behaviour and agrees both publicly and privately.

With regards to tax evasion, the key determinant of compliance is the views of peers as well as the degree to which the social influence the taxpayer comes across in the socialization process (Sutinen & Kuperan, 1999). Compliance is a function of the perceived power of a person at his disposal and the persuasive tactics that other persons employed in getting his consent. Hence, power in action means influence. In

essence, power is the ability or capacity of an institution or person to wield influence (Hogg & Vaughan, 2005).

The judgment of taxpayers is dependent upon their belief on tax itself. Favourable attitude results in positive tax compliance and vice versa. Many tax compliance studies have employed theories involving taxpayer's judgment in their studies (such as Theory of Planned Behaviour). These studies include Song and Yarbrough (1978), Hanno and Violette (1996), Bobek (1997), Bobek and Hatfield (2003), and Manaf (2004).

### 2.7.2.2 Social Exchange Theory

The Social Exchange Theory hypothesises that, in a social setting, the relationships are shaped by the subjective cost-benefit analysis, whereby the alternatives of rewards and cost are compared in making decisions. Hence, this theory is concerned with the process of how to exchange and negotiate between parties (Homans, 1961). Based on this theory, Homans (1961) postulated that the individuals are motivated to repeat a certain action if they derive some benefits as a reward to the performance of that action. In other words, the taxpayers are more inclined and influenced to pay tax obligations if the public goods are provided as expected and transparency is upheld by the managers of the generated resources.

In the same vein, according to Wallace and Wolf (1999), the Social Exchange Theory postulates that consistency is always ensured for a repetition of an action which is rewarding, or in other words, there is a relationship between reward for action and the continuous performance of the action.

The theory was further improved by Blau (1964) and others. According to Blau (1964) the fact that social exchange brings about social integration through the creation of mutual trust among individuals and also influencing being in conformity with societal norms, it is established that the theory could lead to rewards that are not only in terms of economic benefit but also a more general and beneficial social exchange. It is been accepted that the fundamental process of social exchange is centrally the reciprocity. Thus, the benefit can be non-economic such as psychological or enthusiastic benefits that can keep some citizens to paying their taxes.

In taxation context, the theory assumed that the relationship between the taxpayer and government is reciprocal. In line with this argument, Torgler (2007) indicated that the provision of quality service by the government motivates the taxpayers to be more desirable to comply with the provisions of the tax laws. Several studies on tax compliance applying the Social Exchange Theory, have found that fiscal exchange always leads to achieving high tax compliance (Alm *et al.*, 1992; Alm, McClelland & Schulze, 1992).

In summary, taxpayers are inclined to a high commitment if they have public spirit, thus leading to less engagement in tax evasion. This has been confirmed by previous studies, such as Barone and Mocetti (2011), and Andriani (2015) who established that there is a significant positive relationship between tax morale and public spirit. In other words, there is a negative relationship between public spirit and tax evasion.

### 2.7.2.3 Social Dominance Theory

Basically, the Social Dominance Theory is an attempt to describe why human societies are formed and operated in organised group-based hierarchies. Right or wrong human societies are inclined to be run in the form of systematised groups in a hierarchical manner (Sidanius *et al.*, 2004). Therefore, they reported Social Dominance Theory focuses on the effect of group dominance societies of human social interaction, such as politics, culture, economic activities, ideology, and other structural facets of human endeavours. The theory emphasized the ideological and structural aspects (among other factors) of societies in various types of group-based oppression (Sidanius *et al.*, 2004).

According to Sidanius *et al.* (2004), attention has been directed towards understanding and explaining differences and similarities across societies, the social-contextual as well as the interactions between psychological processes and also the understated, but yet very important differences and similarities between the numerous kinds of group-based oppressions. This is the reason why the theory attempts to narrow and avoid the over estimation in generalising the ethnocentric and androcentric aspects of dominance particularly from the focal point of cultural oppression. It examines the interaction of processes in different hierarchical levels of group dominant-society as they interact with each other not merely the scrutiny of a simple root cause, like personality.

To the best knowledge of the researcher, there is no study using Social Dominance Theory in tax evasion research. However, the literature has indicated the need for incorporating relevant Socio-Psychological theories in the investigation of the complex behaviour of tax evasion (Jackson & Milliron, 1986; Alm, 1999). Hence,

the current study argues that the Social Dominance Theory is relevant in supporting the direct effect of the economic dominance on tax evasion among the Palestinian SMEs.

Based on this theory, the domination of Israel on Palestine has been manifested in controlling the Palestinian economic structures which include the tax administration. For example, after signing the economic agreement which gave Palestine independence over its economic management, Israel has not complied with the agreement. In addition, Israel, for instance, put difficult procedures on importing and exporting goods for the Palestinian traders. Thus, the traders have to find ways to ease their business operation with the help of Israel which in turn allows Israel to continue the domination. For example, the Palestinian traders can only import some goods into Palestine through Israel which imposes taxes on them (Elkhafif *et al.*, 2014).

The domination of Israel leads to high fiscal leakages in the Palestinian treasury (Elkhafif *et al.*, 2014). Consequently, the Palestinian tax authority will not be able to identify the exact amount of money and trades (especially in the case of imported goods) which will lead to income tax evasion. Therefore, the current study is concerned with the influence of domination in encouraging tax evasion by making the tax administration inefficient because of domination.

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### 2.8 Factors Effecting Tax Evasion

This section provides discussions on factors influencing tax evasion. The factors are the probability of detection, tax penalty, tax fairness, peer influence, tax rate, corruption, and economic domination. In this section, the moderating factor (public spirit) is also discussed.

# 2.8.1 Probability of Detection

Probability of detection refers to the possibility of tax authorities detecting tax evasion act of an individual through its enforcement tools such as, tax audit that is considered one of the effective detective measures used by the tax authorities (Fischer, Wartick & Mark, 1992; Chau & Leung, 2009; Alstadsæter, Johannesen & Zucman, 2017). It is also defined as the belief of a taxpayer on the likelihood of the tax authority to discover the act of tax evasion through any of its enforcement programmes, which include computer matching of third-party reports, computerised checks of filed returns for obvious errors, and all levels of audits (Fischer *et al.*, 1992).

Since the standard model of tax evasion by Allingham and Sandmo (1972) and Srinivasan (1973) was published, much research has tested its parameters (tax rate, audit probability, penalty rate) for empirical validity. Surveys, laboratory experiments, and an analysis of aggregate data revealed ambiguous evidence for the model's behavioural implications. According to Nhavira (2016), the taxpayer has to choose between two (2) main strategies, which are declaring the actual income or declaring less than the actual income. In this model, taxpayers decide whether to evade taxes in the same way they would consider in any risky decision or gamble by maximizing the expected utility or impacted by possible legal tax penalties or impacted by any other contingent cost. Consequently, the optimal tax evasion is dependent on the chance of getting caught and penalized, the size of the tax penalty for tax evasion, and the taxpayers' degree of risk aversion (Slemrod, 2007).

The economic model assumes that taxpayers try to maximize the outcome of the compliance decision by weighing the gain of successful evasion against the risk of detection and punishment (Allingham & Sandmo, 1972). The expected value of tax evasion depends on probabilities of detection and tax penalties. In the same vein, Allingham and Sandmo (1972) concluded that an increase in the probability of detection will always lead to a larger income being declared. However, choosing the risky strategy of evading all or part of the actual income will result in a better outcome for taxpayers, if the respective tax file is not audited by the tax authority. In case of audit, the compliance would have been the better strategy because taxpayers comparing the benefits of accomplished tax evasion against the cost of detection and punishment (Kirchler *et al.*, 2007).

Focussing on the probability of detection, taxpayers normally would like to evade their tax liabilities entirely and the only reason they might not do is that there is some non-zero probability of being caught (Bordignon, 1993). In other words, the probability of detection via tax audits has both direct deterrent effect on the taxpayers actually audited and indirect deterrent effect on taxpayers who are not audited yet (Alm, Jackson & McKee, 2004). An increase in the probability of detection, or the probability of detection rate, makes the decision to evade riskier. Based on the assumption of risk-averse taxpayers implies that an increase in the audit rate would reduce tax evasion (Abdixhiku, 2013; Almunia & Lopez-Rodriguez, 2018). Other studies revealed that the probability of detection was negatively correlated with tax evasion (Witte & Woodbury, 1985; Dubin & Wilde, 1988; Slemrod *et al.*, 2001; Ayers *et al.*, 2015; Ayuba, Saad & Ariffin, 2016a; Bott *et al.*, 2017; Almunia & Lopez-Rodriguez, 2018).

In contrast, Tauchen *et al.* (1993) dictated that tax audit only exerts a weak effect probability of detection on tax evasion among the high-income group. The results further suggest that the general deterrent effect of audits may be substantially larger than the direct revenue yield of audits for high-income taxpayers. Another experimental study also confirmed the insignificant relationship of audit (Alm & McKee, 2006). A similar finding is reported by in Israel where Ariel (2012) found an insignificant relationship of the perceived probability of detection together with apprehension on tax evasion.

There are several empirical researches linking the probability of detection and tax evasion but the findings were inconsistent and inconclusive. As Gemmell and Ratto (2012) stated, these studies challenge the simple view that a tax audit, or increased audit threat, necessarily reduce a taxpayer's evasion. Alm, Jackson and McKee (2009) suggested that these inconsistent results have arisen because probability of detection may have an indirect or moderating effect on tax evasion in the presence of other variables.

In summary, previous studies have provided strong evidence on the relationship between probability of detection and tax evasion. Although the relationship between probability of detection and tax evasion were inconsistent, most studies found a significant and negative influence of probability of detection on tax evasion. Probability of detection is considered an important deterrence mechanism that can potentially discourage tax evasion. Therefore, a need arises for more studies to focus on this relationship for better understanding the tax evasion phenomena.

#### 2.8.2 Tax Penalty

Tax penalty refers to the strictness of the penalty in terms of fines and prisoning associated with the detection of the tax evasion (Efebera, Hayes, Hunton & O'Neil, 2004). Tax penalty is a punitive measure that the tax law imposes for the performance of an act that is proscribed, or for the failure to perform a required act such as the failure to timely file return or filling wrong or undervalued returns. If a taxpayer is required to file an income or excise tax return and fails to timely do so, a late filing tax penalty may be assessed (Oladipupo & Obazee, 2016).

The traditional paradigm for understanding tax evasion is economics of crime approach (Allingham and Sandmo 1972), which models the decision to pay taxes as a trade-off between paying one's taxes versus not paying one's taxes. The decision to comply is risk-free, whereas the decision to evade is risky since if the evasion is detected, the taxpayer will have to pay the taxes plus tax penalties. Allingham and Sandmo (1972) therefore conclude that an increase in the probability of detection and tax penalties will always lead to a larger income being declared.

Another important factor affecting tax evasion is the relationship between tax evasion and the severity of sanctions. The idea is that fear of tax penalties prohibits tax evasion. According to Chau and Leung (2009), tax evasion can be decreased by increasing the tax penalties associated with it. Similarly, Feld and Frey (2006) revealed that with severe tax penalty some practices of tax evasion are less likely to occur, and also, to be effective, tax penalties must be applied speedily and forcefully. The experimental studies conducted by Hasseldine, Hite, James and Toumi (2007) also showed that the severity of sanctions has a significant relationship with tax evasion. Using rigid and forceful tax penalties to reprimand tax evaders ruins

government image and may end up to devastating public opinion against the government (Kira, 2017).

Some studies have proven the relationship between tax penalty and tax evasion empirically. The study conducted in Tanzania by Fjeldstad and Semboja (2001) reported a positive relationship between tax penalty and tax evasion. A similar result was reported by DeBacker *et al.* (2015) among USA corporate taxpayers. On the other hand, several studies found no support for the deterring effects of tax penalties. Pommerehne and Weck-Hannemann (1996) found no relationship between tax penalty rate and tax evasion in Swiss. Similarly, Gemmell and Ratto (2017) in their result reported no relationship between tax penalties and tax evasion.

While, tax penalties are only effective in combination with high frequent audit rates (Alm, Sanchez & De Juan, 1995; Kirchler *et al.*, 2007). The study by Ali, Cecil and Knoblett (2001) analysed tax evasion of American taxpayers between 1980 and 1995, and they found that tax penalty rate was increased from 5% to 30% but the tax penalties had no relationship with tax evasion. Oladipupo and Obazee (2016) showed an insignificant negative relationship with tax evasion amongst SMEs in Nigeria. Interestingly, increasing the tax penalties can also have the reverse effect by initiating tax evasion. Fjeldstad and Semboja (2001) reported comparable results, that oppressive tax enforcement and harassment of taxpayers increased resistance to paying taxes.

In conclusion, tax penalty is considered as one of the most important determinants of tax evasion (Devos, 2014). Reviewing the prior studies on tax penalty suggested inconclusive findings of the relationship of tax penalty on tax evasion. Moreover, the

influence of tax penalty reported by assorted studies did not support the theoretical studies, this is indicated by most studies reviewed in this section. Therefore, it is important to investigate the relationship of tax penalty among taxpayers.

#### 2.8.3 Tax Fairness

Tax fairness is a variable categorized under the non-economic determinates of tax evasion, which has been a part of the considerations in the taxpayers' decision-making (Farrar, Kaplan & Thorne, 2017). On the basis of the literature on social psychological fairness, Wenzel (2002) designed a conceptual framework and offered the main factors of fairness distinctively, as the distributive fairness and procedural and retributive fairness as they relate to paying tax. It was further explained in the tax evasion context that the benefits attributable to paying tax are the public goods received by the taxpayer and the cost that is basically the actual tax to be paid. Accordingly, it was established that the perceptions of distributive fairness have an influence on tax evasion (Wenzel, 2002; Kirchler, 2007).

In line with this argument, it was confirmed that taxpayers who perceive that their tax obligation is higher than that of others are inclined to be less compliant to the provisions of the tax laws (Kinsey, Grasmick & Smith, 1991). Similarly, reciprocal inequity and inequality do seemingly undermine tax compliance. Besides taxpayers tend to comply where they get a reward in the form of public goods and services which goes with the reciprocity postulation of Social Exchange Theory (Moser, Evans & Kim, 1995). Murphy (2003) supported the argument that fair treatment decrease tax evasion, the study found that equal treatment among taxpayers in any legal matters can motivate and enhance the spirit of voluntary compliance. This view has been supported by several studies that show empirical evidence about the

influence the perception of fairness of the tax system to tax compliance of taxpayers (Puspita *et al.*, 2016).

Gerbing (1988) conducted a survey on identifying the dimension of tax fairness and found five (5) fairness dimensions: (1) general fairness/distribution, (2) exchange with government, (3) attitude towards taxes of the wealthy, (4) progressive versus flat tax rate and (5) self-interest. Christensen, Weihrich and Newman (1994) also found the five (5) tax fairness dimensions similar to Gerbing (1988). Gilligan and Richardson (2005) and Richardson (2006) in their studies used the instrument developed by Gerbing (1988). These studies were conducted in Hong Kong where Gilligan and Richardson (2005) and Richardson (2006) found that despite cultural differences that exist in Hong Kong and other western countries, similar tax fairness dimensions were found in Hong Kong.

Tax evasion leads to disturbing the tax fairness perception among taxpayers (AlAdham *et al.*, 2016). When other taxpayers engage in tax evasion, honest taxpayers pay their taxes because of their belief in the tax obligation. Eventually, when the government impose new taxes or increase existing ones, this increases the tax burden on honest taxpayers, which might drive them to evade taxes (AlAdham *et al.*, 2016). It was also found that tax compliance intentions are highest when interactional fairness is higher (Farrar *et al.*, 2017). On the other hand, it is widely believed by tax administrators and the taxpayers that growing dissatisfaction with the fairness of tax system is the major causes for increasing tax evasion (Farrar *et al.*, 2017).

Other survey conducted by Richardson (2006) considered the relationship between tax fairness and tax evasion, his results study show that the higher the level of tax fairness, the lower is the level of tax evasion. Hence, many prior studies indicated a negative relationship between tax fairness and tax evasion (Roberts & Hite, 1994; Chan *et al.*, 2000; Belay & Viswanadham, 2016; Puspita *et al.*, 2016; Kostritsa & Sittler, 2017). Therefore, a study on the effect of taxpayers' perceptions of the fairness of a tax system becomes imperative (Azmi & Perumal, 2008).

In contrary, other studies reported an insignificant relationship of tax fairness on tax evasion. Porcano (1984) found an insignificant relationship between vertical tax fairness and tax evasion. Similar findings were reported in the Malaysian context by Saad (2009) and Faizal and Palil (2015).

In sum, prior studies indicated a keen interest in understanding the role of tax fairness in tax compliance judgments, intentions, and decisions (Bordignon, 1993; Murphy, 2005, 2009; Van Dijke & Verboon, 2010). However, the relationship between tax fairness and tax evasion is still uncertain because of the inconsistent results in the literature. Therefore, there is a need for empirical evidence for better understanding the relationship between tax fairness and tax evasion.

#### 2.8.4 Peer Influence

Individuals or groups such as peers, co-workers, family, and friends may have an influence on the decision-making of others based on how they perceive the behaviour, whether or not they would endorse it and to what extent the individuals are motivated to conform to their views (Beck & Ajzen, 1991). Theoretically, the

effect of social information has been shown to lead to coordination on the social norms (Myles & Naylor, 1996; Kim, 2003; Traxler, 2010).

Kirchler, Hoelzl and Wahl (2008) argue that if taxpayers believe that tax evasion is widespread and approved by their referent group, they are more likely to be non-compliant as well. Hence, taxpayers with peers engaging in tax evasion are more likely to perpetuate tax evasion (Chau & Leung, 2009; Alm *et al.*, 2016). Previous studies have found a relationship between perceived subjective norms (referent others) and tax evasion (Cullis & Lewis, 1997; Bobek & Hatfield, 2003; Richardson, 2006; Tsakumis *et al.*, 2007). Thus, it means that if many taxpayers are evading taxes, other taxpayers also have a greater incentive to evade taxes and vice versa. According to Alm, Bloomquist and Mckee (2016) taxpayers behaviours are affected by the behaviour of their "neighbours", or those about whom they may have information, whom they may know, or with whom they may interact on a regular basis. Taxpayers seem more likely to be compliant when they believe that other taxpayers comply; conversely, when taxpayers believe that others evade taxes, they may well engage in evasion.

Indeed, many decisions made by individuals are impacted by the examples given by their peers and similarly, tax behaviour depends on the compliance of others in society and is affected by social norms (Alm & Torgler, 2006; Cummings *et al.*, 2009; Alm, 2012). Previous studies reported inconsistent findings on the relationship between peer influence and tax evasion. Scholz, McGraw and Steenbergen (1992) found that others' opinion influences commitment to tax evasion. Other studies reported similar findings (Cullis & Lewis, 1997; Bobek & Hatfield, 2003; Tsakumis *et al.*, 2007). Recently Alm *et al.* (2016) reported a significant relationship of peer

influence on tax reporting decision. Taxpayers perceptions about other taxpayers compliance level too have a strong effect on their compliance decision (Alleyne & Harris, 2017).

Insignificant relationship of peer influence on tax evasion was reported. Hite (1988) examined the influence of peer influence using an experimental approach and reported an insignificant relationship of peer on reporting decision. Hanno and Violette (1996) measured taxpayers' beliefs about specific referent groups, namely: Family members, employers, friends, and spouse. Their results found that most of the respondents were only moderately motivated to comply with these referent groups. Similarly, Palil *et al.* (2012) found that the compliance of family and friends did not lead to an increase in compliance. Bidin and Sinnasamy (2018) found that peer influence does not effect in compliance decision between Malaysian taxpayers. This finding implies that compliance of the referent group did not influence the respondents to be compliant.

From the literature it is deduced that studies on tax evasion and public goods present empirical evidence that individuals' beliefs and perceptions on others' tax compliance level have strong influence on their compliance and participate level (for example, Fortin, Lacroix & Villeval, 2007; Frey & Torgler, 2007; Falk, Fischbacher & Gächter, 2009). Thus, one can expect a positive correlation between a taxpayer's compliance level and his or her perception of compliance level of another member of the society. If individuals notice that many others evade taxes, their intrinsic motivation to comply with taxes decreases.

In summary, most of the prior studies (e.g. Alm & Torgler, 2006; Alm, 2012; Alm *et al.*, 2016; Alleyne & Harris, 2017) have established the significant relationship of peer influence on tax evasion. However, the relationship between peer influence and tax evasion was inconsistent in the literature. Thus, other studies are required to examining the relationship between peer influence and tax evasion since peer influence is one of the main determinants of tax evasion (Alm *et al.*, 2016).

#### **2.8.5 Tax Rate**

Tax rate is a fundamental characteristic of tax systems and one of the important deterrent variables in the Economic Theory of tax evasion (Devos, 2014). Devos (2007) identified tax rate as an important tax structure variable related to the perception of equity of the tax system. Tax rate is the amount of tax payable by a taxpayer, as it relates to the taxable item in line with the principles of taxation (Mansor & Gurama, 2016). Chiarini, Marzano and Schneider (2013) indicated that a number of theoretical models have evolved to determine the relationship between tax evasion and tax rates. In their review of the existing literature, Kirchler *et al.* (2007) showed that the empirical evidence provided support to both hypotheses, whereby most studies reported high tax evasion with high tax rates.

According to the Deterrence Theory, tax rate has a significant relationship with tax evasion (Allingham & Sandmo, 1972), and the relationship of the tax rate on tax evasion involves income and substitution effects. It was also declared that a greater tax rate would minimize after-tax-income and decrease tax evasion, thus assuming increase risk-aversion. A higher tax rate will also make works of tax evasion more profitable which is pointed out as the substitution effect. Consequently, it was concluded that there is an ambiguity of change tax evasion due to the influence of

the tax rate. However, few studies supported this result (e.g., Yitzhaki, 1974; Adebisi & Gbegi, 2013; Nzaro *et al.*, 2013; Olowookere & Fasina, 2013), which revealed that increasing the tax rate has a negative relationship with decreasing the tax evasion.

In contrary, several studies from developed and developing countries showed that relationship between tax rates and tax evasion is positive (Alm *et al.*, 1990; Alm *et al.*, 1992; Martinez-Vazquez & Rider, 2005; Malkawi & Haloush, 2008; Guldana, 2013; Dlamini, 2017). These studies reported that taxpayers are using the high tax rate as a chance for evading taxes and in under-reporting their income and earnings to the tax authorities. Rahhal (2017) investigated the effect of change in tax rates on tax evasion in Palestine. The study reported a positive relationship between tax rate and tax evasion. A recent study by Ottone, Ponzano and Andrighetto (2018) found a positive relationship between them. They developed their analysis in two (2) countries characterized by high tax burdens: Sweden and Italy.

Carroll (1998) used a panel consisting of annual tax returns that span a period when tax rates increased during the 1990 and 1993 US Tax Acts. Their findings show that a tax rate increase in both years resulted in lower reported incomes of taxpayers facing higher rates. Fisman and Wei (2004) found that an increase in the tax rate is associated with an increase in tax evasion.

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Gorodnichenko, Martinez-Vazquez and Peter (2009) examined the introduction of the flat tax in Russia. The study found that the reduction of the tax burden through tax rates caused lower levels of tax evasion. Abiola and Asiweh (2012) in their study on the effect of tax management on government revenue in an emerging economy, concluded that a positive relationship exists between tax rate and tax evasion. Freire-Seren and Panades (2013) found in their study that higher tax rate courage tax evasion.

However, contrary to the foregoing empirical findings, a negative relation of tax rates and evasion was reported by Alm *et al.* (1995) using experimental techniques to explore the major factors that affect tax evasion in Spain. The subjects were in front with three (3) different levels of proportional tax rate (10%, 30% and 50%). Their results show that higher tax rates lead to somewhat less levels evasion (respectively, 14%, 24% and 31%). Similarly, Adebisi and Gbegi (2013), Nzaro *et al.* (2013) and Olowookere and Fasina (2013) in their studies found that there is a negative relationship between tax rate and tax evasion.

Rice (1992) focused on the effect of the marginal tax rate on corporate tax compliance and found an insignificant relationship of the marginal tax rate. In the same context, Kamdar (1997) expanded the sample of Rice's study and found no relationship between tax rate and tax evasion. In another study, Abdul-Jabbar (2009) reported an inconclusive finding that indicated an insignificant relationship. Also, a Nigerian study by Ibadin and Eiya (2013) on behaviours of self-employed, concludes that neither negative nor positive relationship exists between tax evasion and tax rate.

In Palestine, since 2004, there have been 10 amendments on income tax rates to increase tax revenue. However, these continuous amendments have not achieved their objectives (Fayek, 2015). This supports the need for an investigation into the actual perceptions of the taxpayers about the tax rate which would enrich the existing

body of knowledge. However, only one (1) study conducted by Rahhal (2017) has focused on the effect of tax rate on tax evasion based on the perceptions of the tax authority staff, and found a positive relationship between tax rate and tax evasion.

Finally, a number of studies have investigated the relationship of tax rate on tax evasion and indicated the importance of tax rate in determining tax evasion. However, as indicated by the literature review, the findings on the relationship of tax rate on tax evasion are inconsistent. Therefore, since tax rate is one of the main factors of tax evasion, further studies are required to examining the relationship between tax rate and tax evasion.

### 2.8.6 Corruption

Corruption refers to a transaction involving an agent who pays a sum of money in exchange for an unlawful act by a public officer (Andreoni *et al.*, 1998). According to McClellan (2013), corruption has the potentiality of reducing the government's revenue as a result of lower tax collections. This is because a taxpayer may easily evade tax by bribing the tax officials and pay less tax, and as a consequence, the potential revenue accruing to government remains uncollected and lost. This in turn cripples the government more especially in cash-strapped developing countries which is the primary responsibility of providing public goods and services, such as security, health, and education. However, globally, corruption is a big challenge, whose roots need to be fully understood by stakeholders especially policy makers (Carvalho, Santos, Martins, Franco & Mazzon, 2016).

Chander and Wilde (1992) developed a tax evasion theoretical model incorporating corruption. In line with the study of Graetz, Reinganum and Wilde (1986), the authors adopted a game-theoretic approach to tax evasion. Hence, it was established that the presence of corruption leads to increased tax evasion. Torgler (2003a) claimed overcoming the corruption issues will restrict taxpayer's compliance behaviour. Uslaner (2010) stated the corruption will deter taxpayer to pay taxes.

Empirical studies reported inconsistent findings on the relationship of corruption on tax evasion with most of the studies reporting positive relationship. Bilotkach (2006) found that corruption of the tax authority has a significant relationship on the tax evasion in Ukraine. Picur and Riahi-Belkaoui (2006) in their study found a positive relationship between corruption and tax evasion. In the same vein, McGee and Maranjyan (2006) found that a significant number of respondents engage in tax evasion for corruption reasons.

Uslaner (2010) argued that the key determinant of the perception of government's effectiveness is the level of corruption in the country. Taxpayers make decisions on tax compliance based on their perception on whether money paid as tax will be judiciously utilised for the provision of public goods or took by the corrupt tax collectors (Uslaner, 2010). Thus, if their perception is that tax will not be fully used for the public good, they prefer not to pay. This logically makes corruption a key determinant that has a positive relationship with tax evasion. Hence, corruption has been established to be a significant determinant of tax evasion (Torgler, 2005; Torgler & Schneider, 2007; Alm *et al.*, 2016).

However, Rahmani and Fallahi (2012) posit that where the costs of evading tax go beyond the costs of the tax payment, then a rational taxpayer will rather decide to comply with the provisions of the tax law than to opt for a higher cost of bribing the tax officials. In this kind of scenario compliance increases and evasion goes low. Thus, where corruption in a country is less, then tax evasion is expected to be low and compliance to be high (Rahmani & Fallahi, 2012). The taxpayers' perception on the level of corruption in government seriously affects tax evasion (Ayuba, Saad & Ariffin, 2016b).

Some studies showed otherwise negative relationship between corruption and tax evasion. Akdede (2006) found that bribery has a negative relationship on tax evasion. This finding implies that when the size of bribery is huge, taxpayers would choose to pay taxes voluntarily over corruption. Imam and Jacobs (2014) found an insignificant relationship between corruption and total tax revenue. More specifically, the study found an insignificant relationship between corruption and income tax evasion.

In sum, above mentioned studies indicated that corruption encourages tax evasion (Torgler, 2003a; Uslaner, 2010; Alm *et al.*, 2016; Ayuba *et al.*, 2016b; Rosid, Evans & Tran-Nam, 2018). Although the findings of the relationship between corruption and tax evasion are inconsistent as shown in the previous literature review, most studies reported a positive and significant relationship of corruption on tax evasion. Therefore, more studies are required to determine the relationship between corruption and tax evasion since corruption is important factor of tax evasion.

#### 2.8.7 Economic Domination

The control of Israel on the Palestinian territories has been a major determinant of the performance of the Palestinian economy and development (Khalidi & Taghdisi-Rad, 2009). In addition, this has an implication on the management of the Palestinian economic institutions which includes the tax authority (Fjeldstad & Al-Zagha, 2004). Therefore, the domination of Israeli which has affected the tax administration contributed to the weak enforcement of tax laws and encouraged tax evasion (Rahhal, 2014).

Economic domination involves the effect of one (1) group on another (second group) that restrict the independence of the second (2) group e.g. to utilize its resources (Sidanius, Pratto, van Laar & Levin, 2004). However, the domination of Israel on Palestine has become apparent on the Palestinian economic management in the external trade relations and tax administration (Fjeldstad & Al-Zagha, 2004). Thus, the Israeli domination on Palestine has affected most Palestinian formal institutions and rendered the Palestinian Authority less independence (Fjeldstad & Al-Zagha, 2004; Zomar *et al.*, 2012). Consequently, this lack of independence might have restrictions on the ability of tax administration to tackle tax evasion (Andriani, 2015).

The effect of economic domination can be supported by Socio-Psychological theories, specifically the social dominance perspective. This theory is concerned basically with both the individual and the structural factors that lead to group-based domination (Sidanius & Pratto, 1999). Based on this theory, the domination of Israel on Palestine is represented by controlling the Palestinian economic structures,

including the tax administration which may facilitate the tax evasion. Therefore, the current study proposes that economic domination influences tax evasion.

An empirical relationship between Israel economic agreement with Palestinian authority and tax evasion has been reported in a Palestinian study. Rahhal (2014) investigated the effect of the economic agreement which involves control of the Palestinian economic institutions. Based on a survey on the views of tax managers in the Palestinian income tax department, the study found that agreement is one of the significant causes of tax evasion in Palestine.

Rahhal (2014) focused on the effect of the economic agreement and restrictions caused by the agreement in conducting tax audit on the income tax. He also analysed the economic agreement based on the tax administration staff's perspectives using descriptive statistics (mean and standard deviation). However, the current study differs from Rahhal's (2014) study by considering the domination aspect of Israel and its influence on tax administration. Also, unlike Rahhal, the current study investigates the influence of economic domination based on Social Dominance Theory. In addition, the current study focuses on the opinion of the SMEs taxpayers to analyse the direct relationship of the economic domination on tax evasion in the research model.

In summary, a review of the literature reveals a lack of studies on the direct influence of economic domination on tax evasion. Thus, economic domination is one of the major contributions of the current study as one determinant of income tax evasion in Palestine. Given the peculiar nature of the tax environment in Palestine involving Israeli domination, the effect of the high economic domination may

directly influence tax evasion. Therefore, the current study incorporated the direct effect of economic domination into its model.

### 2.8.8 Public Spirit

In connection with the "puzzle of tax compliance", the commitment of some taxpayers relates to the psychological bonds involving emotional ties which go beyond the transactional exchanges (Barone & Mocetti, 2011). Besides the deterrent factors, tax compliance also depends on some social norms adopted by a community (Torgler, 2005). As the Palestinian society has an established collectivist nature and social relationships that depend on group cooperation to help one (1) another (Andriani, 2015), it is important to connect the public spirit and tax evasion in such a context to encourage voluntary tax compliance.

According to Kelman (1987), public spirit involves acting against one's self-interest and thinking about others when taking a stand. Public spirit also denotes good attitude employed by the people that lead to benefit for the public, even if this can lead to a personal cost and reduction of one's personal benefit (Andriani, 2015). In relation to tax, Alm, Cronshaw and Mckee (1993) argued that citizens may perceive their tax payments as contributions to the common good such that they are willing to honestly declare their income even if they do not receive a full public good equivalent to their tax payments. The payment of taxes has features of a voluntary contribution for a common good purpose. One possible explanation for this has been put forward in the context of "tax morale": Individuals may have good feelings about fulfilling their tax obligations or may feel a "warm glow of giving" when making their financial contribution for the public benefit (Andreoni, 1989).

Few empirical results were found about the influence of public spirit in the area of taxation. Andriani (2015) investigated the effect of public spirit and tax morale among Palestinian individual taxpayers. The study defined public spirit as a positive attitude adopted by citizens for the benefit of the public. Using data from the Palestinian public opinion survey, the study reported a positive association between public spirit and tax morale. Predicted conditional probabilities indicate that public spirit has more effect when the respondent has low confidence in the institutions and in the rule of law. Barone and Mocetti (2011) investigated the determinants of tax morale in Italy. Using tax morale survey data, the study reported that attitude towards paying taxes is better when taxpayers have enthusiastic motivation. Hence, a negative relationship was found between public spirit and tax evasion.

Studies in the area of organizational change show that factors of enthusiastic motivation such as spirit at work (involving contribution to the common good) have a strong connection with a commitment to work (Krishnakumar & Neck, 2002; Kinjerski & Skrypnek, 2004). This relates to public spirit as both factors involve enthusiastic motivation that encourages contribution to achieve the common good.

In conclusion, although previous studies on public spirit and taxation have been limited, these studies such as Barone and Mocetti (2011) and Andriani (2015) have established the direct relationship of public spirit on tax morale which implies its effect on tax evasion. Hence, public spirit is a very important factor in tax evasion. Furthermore, due to the inconclusive findings and the need for more explanations of complex tax evasion behaviour, the current study investigated the moderating effect of public spirit on the relationship between income tax evasion and its determinants.

### 2.9 Chapter Summary

This chapter presented an overview of Palestine and its tax system. The conceptual background of the tax evasion and factors effecting income tax evasion are discussed. Based on the literature review, the current study is considered as one of the first studies in examining the income tax evasion in the Palestinian SMEs context. The current study is founded on the basis of the Deterrence and Socio-Psychological theories which form the Fischer model. Also, the Social Dominance theory was employed as a supporting theory. The following chapter explains the methodology of the current study.



# CHAPTER THREE METHODOLOGY

#### 3.1 Introduction

Chapter Three presents the theoretical framework for the current study. The framework is based on Economic and Socio-Psychological theories. The chapter further develops the hypotheses of the study based on the previous studies in line with the objectives of the current study. Besides, the chapter highlights the research design, the operational definitions under which the variables of the study are defined, the measurement of the variables, the population, and the questionnaire design. The chapter also includes data collection procedures, which explain the approach used in data collection and techniques of the data analysis.

#### 3.2 Theoretical Framework

The framework, which is normally based on a theory, provides a guide for testing the hypotheses. The framework of the current study is underpinned by the Deterrence and Socio-Psychological theories adapting Fischer model. The framework, as illustrated in Figure 3.1, consists of nine (9) variables, which include one (1) dependent variable (tax evasion), seven (7) independent variables (probability of detection, tax penalty, tax fairness, peer influence, tax rate, corruption, and economic domination), and one (1) moderating variable that is public spirit.

All the independent variables were measured as direct variables and also tested for the moderating relationship of public spirit with the exception of economic domination. The economic domination variable was excluded from the moderating relationship because it is considered as a new independent variable, whereby this relationship has not been established yet with tax evasion. This is evidenced by the lack of any existing literature on the relationship between economic domination and tax evasion. The variables which are tested directly are those extracted by studies that are summarised in Table 3.1 below.

Table 3.1 Summary of Variables and their Sources

Variables	Related Sources	
Probability of Detection	Andreoni <i>et al.</i> (1998); Alm <i>et al.</i> (2012); Rahhal (2014); Khlif <i>et al.</i> (2016).	
Tax Penalty	Andreoni <i>et al.</i> (1998); Alm <i>et al.</i> (2012); Rahhal (2014); Khlif <i>et al.</i> (2016).	
Tax Fairness	Murphy (2007); Cummings et al. (2009); Alm et al. (2012).	
Peer Influence	Cummings <i>et al.</i> (2009); Alm <i>et al.</i> (2012); Tan and Liu (2016); Alleyne and Harris (2017).	
Tax Rate	Andreoni et al. (1998); Alm et al. (2012).	
Corruption	Bilotkach (2006); Cummings <i>et al.</i> (2009); Alm <i>et al.</i> (2012).	

The relationship between the probability of detection, tax penalty, tax rate, and tax evasion is explained by Deterrence Theory while, the relationship between tax fairness, peer influence, corruption, and tax evasion is explained by the Socio-Psychological theories, specifically the social influence perspective. In addition, the economic domination is a new variable which supported by the Social Dominance Theory through the extension to Fischer model, specifically in the context of the Socio-Psychological theories.

Regarding the moderating relationships, the public spirit stands as the moderating variable in the framework. The moderator is expected to alter the strength between

the existing direct relationships among the dependent and independent variables. The moderating relationships in the current study are supported by the Socio-Psychological approach by extending Fischer model, specifically the social exchange perspective. The proposed research framework is depicted in Figure 3.1.



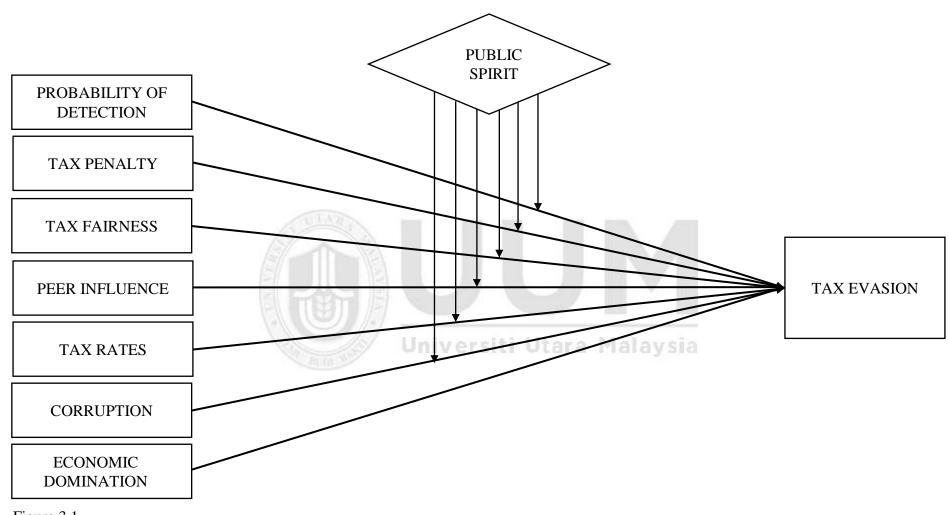


Figure 3.1
Research Framework

As affirmed by Andriani (2015), Palestinian people enjoy a strong attitude towards the general welfare of society due to the existence of strong informal institutions. Hence, public spirit which involves prioritizing the public benefits can discourage tax evasion. Consequently, when the taxpayers have a high public spirit, it will lead to more compliance, thus contributing to the public welfare and complying to pay tax rather than engaging in tax evasion. Other prior studies by Barone and Mocetti (2011) and Andriani (2015) found a positive and significant relationship between the public spirit and the tax morale of taxpayers, which suggests a negative relationship between the public spirit can interact with the determinants of the tax evasion to discourage evasion among the Palestinian SMEs.

It is expected that taxpayers with a high public spirit tend to pay their taxes for the public benefit. These taxpayers are motivated by the moral belief in contributing to the benefits of the public. Hence, the present study uses public spirit as a moderator that interacts with the independent variables and tax evasion among SMEs taxpayers in Palestine. In order to incorporate a moderating variable, the followings may be required: 1) the moderating variable should have a connection with the dependent variable; 2) inconsistent findings exist regarding the relationships between the independent variables and the dependent ones; and 3) the logical explanation of the moderating effect is established (Baron & Kenny, 1986).

Previous literature showed that the relationship between tax evasion and all its determinants used in the current study is inconsistent (refer to section 3.3). As a result, a need arises to consider the moderating variable that could provide more

insights into the findings of the existing literature. Hence, public spirit is incorporated as a moderator on the basis of reciprocity associated with the social relationship (Blau, 1964). The reciprocal benefit that keeps some individuals in some relationships can be non-material (Blau, 1964). Hence, the enthusiastic benefit may encourage many Palestinian citizens to contribute to the nation development for the purpose of the unification of their people and developing the country.

The above discussion demonstrates that employing a moderator may likely highlight the relationship between SMEs tax evasion and its determinants. The current study expects that public spirit discourages tax evasion among the Palestinian SMEs taxpayers. On the other hand, taxpayers without public spirit may be discouraged and tend to follow evasion behaviour, especially when the enforcement system is weak (Andriani, 2015). Thus, public spirit may interact with the independent variables and discourage tax evasion.

### 3.3 Hypotheses Development Warsiti Utara Malaysia

The present study develops several hypotheses based on the literature and theoretical justifications. The hypothesis refers to propositions that can be tested empirically (Zikmund, Babin, Carr & Griffin, 2013). Sekaran (2003) stated that a hypothesis is considered a logical assumed association between two (2) or more variables expressed in the form of a testable statement. In other words, the hypothesis is a speculative statement about the relationship between variables. As highlighted earlier, the variables under consideration in the current study are probability of detection, tax penalty, tax fairness, peer influence, tax rate, corruption, and economic domination as the independent variables, whereas the public spirit is the moderating variable, and income tax evasion is the dependent variable.

The hypotheses are based on the two (2) major objectives of the current study. H<sub>1</sub>, H<sub>3</sub>, H<sub>5</sub>, H<sub>7</sub>, H<sub>9</sub>, H<sub>11</sub>, and H<sub>13</sub> relate to the first objective of the study and denote the direct relationships between the independent variables and the dependent variable. H<sub>2</sub>, H<sub>4</sub>, H<sub>6</sub>, H<sub>8</sub>, H<sub>10</sub>, and H<sub>12</sub> are concerned with the second objective that represents the moderating relationships. All the hypotheses were developed with reference to the findings of the previous studies discussed in the literature review in Chapter Two.

## 3.3.1 The Relationship between Probability of Detection and Income Tax Evasion and the Moderating Effect of Public Spirit

Generally, the primary aim of tax audit is to detect the taxpayer's evasion with the submission of income tax returns and the payment of income tax. Under the Deterrence Theory, the position of the probability of detection in relation to tax evasion is that a high rate of detection will reduce tax evasion, which is confirmed by several studies. Accordingly, pioneer research, conducted by Allingham and Sandmo (1972) to establish the effects of the variables of deterrence on tax evasion, found that probability of detection strongly affects tax evasion. Consistently, a study of Witte and Woodbury (1985) found a significant negative relationship between tax audit and the level of tax evasion. Equally, Chau and Leung (2009) also found that higher probability of detection will reduce evasion. Other studies reported similar findings that supported the significant relationship between probability of detection and tax evasion (Dubin & Wilde, 1988; Slemrod *et al.*, 2001; Ayers *et al.*, 2015; Bott *et al.*, 2017; Almunia & Lopez-Rodriguez, 2018).

Other studies found an insignificant relationship of audit on tax evasion. For example, Tauchen *et al.* (1993) dictated that the relationship between tax probability

of detection and tax evasion is insignificant. A similar result was also obtained by means of experimental studies on tax evasion by Alm *et al.* (2004). Similarly, Alm and McKee (2006) found that probability of detection seems to have an insignificant relationship with tax evasion, and this leads to a decline in the deterrent effect.

Based on the above discussion, most of the studies reported a negative relationship of probability of detection and some few studies reported an insignificant relationship. Thus, it is likely that the incorporation of a moderator may strengthen the relationship between the probability of detection and tax evasion. Consistently, reviewing the literature has suggested that the relationship between the deterrence factors and tax evasion depends on social norms (Wenzel, 2004).

Hence, the current study incorporates the moderating effect of the public spirit between probability of detection and tax evasion based on the Social Exchange Theory. Barone and Mocetti (2011) and Andriani (2015) have found a significant relationship between public spirit and tax morale which implies a significant relationship with tax evasion. Therefore, the public spirit is expected to interact with the probability of detection and reduce tax evasion in Palestine. In this regard, Alm et al. (2012) emphasized the need for alternative approaches in order to obtain a better understanding of the complex tax evasion behaviour. Based on the above discussions on the direct relationship between probability of detection and the moderating effect of public spirit, the following hypotheses are developed:

H<sub>1</sub>: There is a negative relationship between probability of detection and income tax evasion.

H<sub>2</sub>: Public spirit strengthens the negative relationship between probability of detection and income tax evasion.

### 3.3.2 The Relationship between Tax Penalty and Income Tax Evasion and the Moderating Effect of Public Spirit

Theoretically, Allingham and Sandmo (1972) stated that tax evasion could be decreased by increasing the associated tax penalties. Some previous studies have empirically confirmed that tax penalty has a relationship with tax evasion. This finding is in line with an earlier survey conducted by Feld and Frey (2006), whereby it was revealed that some practices of tax evasion are less likely to occur if the evasion could lead to a severe tax penalty. In the same vein, Hasseldine *et al.* (2007) have reported that the severity of criminal sanctions is significantly related to tax evasion.

Contrary to intuition, increasing the tax penalty can have the opposite effect by initiating the evasion of tax among taxpayers. Thus, based on a survey in Tanzania, Fjeldstad and Semboja (2001) reported a positive relationship indicating that oppressive tax enforcement and harassment of taxpayers increase the resistance to the payment of taxes. A similar result was reported by DeBacker *et al.* (2015) among USA corporate taxpayers. Ali *et al.* (2001) and Oladipupo and Obazee (2016) found that tax evasion was insignificantly affected by the tax penalty.

Most of the studies found a negative relationship between tax penalty and tax evasion, whereas some few studies reported an insignificant and positive relationship. Therefore, the current study proposes that the public spirit may strengthen the relationship between tax penalty and tax evasion. The moderating

relationship of public spirit is supported by the Social Exchange Theory and the suggestions of prior studies. Based on the theory, the public spirit which encourages contribution to the public benefits can interact with the tax penalty and reduce tax evasion.

As mentioned earlier, previous studies highlighted the need for alternative approaches in the investigation of the complex behaviour of tax evasion (Andreoni *et al.*, 1998). Consistently, the literature has suggested that the relationship between deterrence factors and tax evasion depends on social norms (Lederman, 2003; Wenzel, 2004). Since prior studies have established a significant relationship between the public spirit and tax evasion (Barone & Mocetti, 2011; Andriani, 2015), the public spirit is expected to moderate the relationship between tax penalty and tax evasion. Given the above discussions on the direct relationship of tax penalty and the moderating effect of public spirit, the hypotheses below are developed:

H<sub>3</sub>: There is a negative relationship between tax penalty and income tax evasion.

H<sub>4</sub>: Public spirit strengthens the negative relationship between tax penalty and income tax evasion.

### 3.3.3 The Relationship between Tax Fairness and Income Tax Evasion and the Moderating Effect of Public Spirit

Tax fairness is a variable that is categorized under the perception and attitude taxonomy which is an important consideration in the taxpayers' decision-making (Farrar *et al.*, 2017). In line with the Social Influence Theory, the majority of prior studies indicated a negative relationship between tax fairness and tax evasion. In this regard, Wenzel (2002) found a significant negative relationship between tax fairness and tax evasion in Australia. Other studies reported the negative relationship

& Viswanadham, 2016; Puspita *et al.*, 2016; Kostritsa & Sittler, 2017). On the other hand, Porcano (1984) found an insignificant relationship between vertical tax fairness and tax evasion. Similar findings were also reported in the Malaysian context (Saad, 2009; Faizal & Palil, 2015).

Based on the above discussion, most of the studies reported a significant and negative relationship of tax fairness, whereas few other studies reported an insignificant relationship. Thus, the current study proposes that the public spirit may strengthen the relationship between tax fairness and tax evasion. As discussed in the previous moderating relationship, the Social Exchange Theory and the suggestions of previous studies supported this moderating effect. Based on the Social Exchange Theory, even under an unfair tax system, taxpayers with a high public spirit can comply with the tax system. Moreover, based on Murphy (2007) suggestion to use alternative approaches to gain a better understanding of tax evasion, and based on the significant relationship of the public spirit on tax evasion has been found (Barone & Mocetti, 2011; Andriani, 2015). Thus, given the above discussions on the direct relationship of tax fairness and the moderating effect of public spirit, the following hypotheses are developed as follow:

H<sub>5</sub>: There is a negative relationship between tax fairness and income tax evasion.

H<sub>6</sub>: Public spirit strengthens the negative relationship between tax fairness and income tax evasion.

### 3.3.4 The Relationship between Peer Influence and Income Tax Evasion and the Moderating Effect of Public Spirit

Taxpayers who are influenced by peer engaging in tax evasion activities are more likely to be tax evaders (Chau & Leung, 2009; Alm *et al.*, 2016). In other words, taxpayers are likely not to file a tax return when they feel that other taxpayers are not reporting their taxes. On the other hand, the taxpayers may not cheat in their taxes if they believe that other taxpayers behave honestly (Frey & Torgler, 2007; Traxler, 2010). In this regard, previous studies reported evidence on the relationship of peer influence on tax evasion. In line with the Social Influence Theory, Scholz *et al.* (1992) found that the opinion of peers influences the commitment to tax compliance. Other studies reported similar findings (Cullis & Lewis, 1997; Bobek & Hatfield, 2003; Tsakumis *et al.*, 2007). More recently, Alm *et al.* (2016) reported a significant relationship of peer influence on tax reporting decision. Similarly, the taxpayers' perceptions on other taxpayers' compliance level have a strong effect on their compliance decision (Alleyne & Harris, 2017).

On the other hand, an insignificant relationship of peer influence on tax evasion was reported by Hite (1988), Palil *et al.* (2012), and Bidin and Sinnasamy (2018). For example, Hite (1988) examined the relationship of peer influence using an experimental approach and reported an insignificant relationship of peer on reporting decision. In addition, Palil *et al.* (2012) found that the compliance of family and friends did not lead to an increase in compliance. This finding implies that the compliance of the referent group did not influence the respondents to be compliant. Similarly, Bidin and Sinnasamy (2018) found an insignificant relationship between peer influence and tax evasion.

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Based on the above discussion, most of the studies found a significant and negative relationship of peer influence, whereas few studies reported an insignificant relationship. Thus, the current study proposes the possible moderating effect of public spirit to strengthen the relationship between peer influence and tax evasion. Since the Palestinian tax system is characterized by weak enforcement and a high level of tax evasion (Rahhal, 2017), the non-compliant taxpayers may encourage the small group of the compliant taxpayers to engage in tax evasion (Alm *et al.*, 2016). However, when having a high public spirit, taxpayers would remain compliant because they value their contribution to public benefits (Andriani, 2015).

The moderating effect of the public spirit is also supported by the Social Exchange Theory. Also, the literature emphasised the need for alternative approaches for more understanding of the complex behaviour of tax evasion and the incorporation of the social norms (Wenzel, 2004; Torgler *et al.*, 2007). Since the prior studies have found a significant relationship between the public spirit and tax evasion (Barone and Mocetti, 2011; Andriani, 2015), it is expected that the public spirit would interact with the peer influence and reduce tax evasion. Based on the previous discussions on the direct relationship of peer influence and the moderating effect of the public spirit, the following hypotheses are developed:

H<sub>7</sub>: There is a negative relationship between peer influence and income tax evasion.

H<sub>8</sub>: Public spirit strengthens the negative relationship between peer influence and income tax evasion.

### 3.3.5 The Relationship between Tax Rate and Income Tax Evasion and the Moderating Effect of Public Spirit

Devos (2007) stated that tax rate is an important factor that is considered by taxpayers in their perception of tax fairness and equity of the whole tax system. The Deterrence Theory posits that the tax rate has a significant relationship with tax evasion (Allingham & Sandmo, 1972). Some previous studies found a negative relationship between tax rate and tax evasion (Adebisi & Gbegi, 2013; Nzaro *et al.*, 2013; Olowookere & Fasina, 2013).

In contrast, Alm *et al.* (1990) found that higher tax evasion is caused by a high tax rate. A study conducted by Rahhal (2017) in Palestine on the effect of change in tax rates on tax evasion revealed that tax rate and tax evasion are positively related. Similar findings were also reported by other empirical studies such as Alm *et al.* (1992); Martinez-Vazquez and Rider (2005); Dlamini (2017) and Ottone *et al.* (2018) in other tax regimes. However, some studies on tax evasion reported an insignificant relationship between tax rate and tax evasion (Rice, 1992; Kamdar, 1997; Abdul-Jabbar, 2009).

Most studies found a significant and positive relationship between tax rate and tax evasion, whereas few other studies reported a negative and insignificant relationship on tax evasion. Hence, the current study proposes the moderating effect of public spirit to weaken the relationship between tax rate and tax evasion. The moderating effect of public spirit is supported by the Social Exchange Theory. Studies indicated that the relationship between deterrence factors and tax evasion depends on the social norms (Wenzel, 2004; Edling & Nguyen-Thanh, 2006). Therefore, Castro *et* 

al. (2014) highlighted the need for alternative approaches in investigating tax evasion.

In line with the above argument, the current study incorporates the moderating effect of public spirit between tax rate and tax evasion. Barone and Mocetti (2011) and Andriani (2015) found a significant relationship of public spirit and tax morale which implies a significant relationship with tax evasion. Therefore, it is expected that the public spirit can interact with the tax rate and reduce tax evasion in Palestine. One of the major aims of adjusting tax rate is to increase tax collection. However, the several amendments of the Palestinian tax rate (as discussed in section 2.8.5) have not achieved this aim (Fayek, 2015). Consequently, encouraging the public spirit, which leads to contribution to the public benefit among taxpayers, may discourage tax evasion even under high tax rates. Based on the above discussions on the direct relationship of tax rate and the moderating effect of the public spirit, the hypotheses below are developed:

H<sub>9</sub>: There is a positive relationship between tax rate and income tax evasion.

H<sub>10</sub>: Public spirit weakens the positive relationship between tax rate and income tax evasion.

### 3.3.6 The Relationship between Corruption and Income Tax Evasion and the Moderating Effect of Public Spirit

Corruption is a global problem affecting many countries and its roots are not fully understood by the policy makers (Carvalho *et al.*, 2016). Perceived corruption has been proven to be a significant predictor of tax evasion (Torgler, 2005; Torgler & Schneider, 2007; Alm *et al.*, 2016; Rosid *et al.*, 2018). In other words, the effective control of corruption is negatively related to tax evasion (Picur & Riahi-Belkaoui,

2006); therefore, a lower evasion level could be achieved with a low level of corruption (Uslaner, 2010)

Several studies indicated a positive relationship between corruption and tax evasion. For instance, McGee and Maranjyan (2006) found that a significant number of respondents engage in tax evasion due to corruption reasons. Similarly, Picur and Riahi-Belkaoui (2006) reported a positive relationship of corruption on tax evasion in a cross country study. Bilotkach (2006) found that corruption among tax authority staff significantly affects tax evasion in Ukraine.

In contrast, some other studies showed opposite findings. For example, Akdede (2006), who focused on bribery among the government's officials, found that bribery has a negative relationship on tax evasion. This finding implies that when the size of bribery is huge, taxpayers would choose to pay taxes voluntarily rather than offer corruption. In another study, Imam and Jacobs (2014) found an insignificant relationship between corruption and the total tax revenue.

Most studies reported a significant and positive relationship of corruption with tax evasion, whereas few other studies reported an insignificant relationship. Thus, the current study proposes the incorporation of public spirit as a moderator to weaken the relationship between corruption and tax evasion. Based on the suggestion of the literature for alternative approaches in investigating tax evasion (Cummings *et al.*, 2009) and the significant relationship between public spirit and tax evasion (Barone & Mocetti, 2011; Andriani, 2015), the current study incorporates the moderating effect of public spirit between corruption and tax evasion based on the Social Exchange Theory.

As demonstrated in the previous studies, corruption exacerbates tax evasion in the Middle East (Imam & Jacobs, 2014) and the Palestinian tax administration is characterized by weak enforcement (Rahhal, 2014). Hence, there is a need for prosocial factors such as public spirit to discourage tax evasion even under a corrupted environment. According to the above discussions on the direct relationship of corruption and the moderating effect of the public spirit, the hypotheses below are developed:

H<sub>11</sub>: There is a positive relationship between corruption and income tax evasion.

H<sub>12</sub>: Public spirit weakens the positive relationship between corruption and income tax evasion.

3.3.7 The Relationship between Economic Domination and Income Tax Evasion

Tax evasion is considered to be dependent on the uniqueness of the context of study

(Trang et al., 2015). In relation to the Palestinian context, the economic domination

by Israel has been a major determinant on the performance of the Palestinian

economy and development (Khalidi & Taghdisi-Rad, 2009). Under the Social

Dominance Theory, the economic domination involves the effect of one (1) group on

another that restricts the independence of the group to utilize its resources (Sidanius

et al., 2004). The economic domination of Israel has affected the tax administration

by weakening the enforcement of tax laws, thus encouraging tax evasion (Rahhal,

2014).

Palestine has been under the domination of Israel which has an effect on most Palestinian formal institutions and rendered the Palestinian Authority less independence (Fieldstad & Al-Zagha, 2004; Zomar *et al.*, 2012). This limited

independence might have restrictions on the ability of tax administration to ensure tax compliance enforcement (Andriani, 2015), and affects the fairness of tax system which encourages tax evasion among other taxpayers. Based on the above discussions on the theory and related studies, the current study hypothesises that economic domination has a direct relationship on tax evasion in the Palestinian context.

H<sub>13</sub>: There is a positive relationship between economic domination and income tax evasion.

#### 3.4 Research Design

Research is viewed by scholars as a structured procedure to gain insights into a new phenomenon and the fulfillment of any research purpose requires the development of an appropriate strategy. Zikmund *et al.* (2013) affirmed that the research design constitutes the core plan that stipulates the methods and procedures employed in data collection and analyses. The current section is concerned with the discussion and execution of the framework of the study. Specifically, the section elaborates on the basics of the research such as the unit of analysis, research approach, population of the study, sample of the study, and sampling techniques.

### 3.4.1 Unit of Analysis

The present study examined the determinants of income tax evasion by SMEs. Along these lines, the level of analysis is business, which means that the data, collected were from the owners-managers of SMEs, aggregated at the organizational level. In addition, the survey questionnaires were circulated to the SMEs owners-managers on the grounds that the owners-managers of SMEs have a significant role in the tax

decisions (Kamleitner, Korunka & Kirchler, 2012). Likewise, the owners-managers are responsible for accumulating and paying income tax to the relevant government authority (Christensen, Cline & Neubig, 2001). Besides, the owners-managers are more likely to have correct perceptions of the income tax evasion of SMEs due to the fact that they typically play a significant role in decision-making. Therefore, they are assumed to have a decent understanding and opinion towards tax issues. Lignier (2009) affirmed that SMEs' owners-managers have the sole knowledge that the exercises of tax compliance will result in an enhanced record and prudence in their financial dealings.

#### 3.4.2 Research Approach

The design of research gives the relevant guide for conducting research (Hair, Celsi, Money, Samouel & Page, 2015). The current study is concerned with the examination of the determinants of tax evasion. Therefore, the choice of design for the present study enables access to the necessary information to accomplish the research goals and answers the research questions proficiently. The survey research approach is the most well-known research strategy employed in the field of social sciences (Hair, Money, Samouel & Page, 2007), and in the field of tax research, this strategy remains prevalent (Abdul-Jabbar, 2009).

Regarding the determinants factors of tax evasion, the present study explores the correlation between the independent and the dependent variables. This is the relational research that examines the hypothesis testing related to the correlation between the variables. Therefore, the present study utilizes a quantitative method to examine the relationship of the determinants of tax evasion on tax evasion. The study also examined the moderating effects of public spirit on the relationship

between the independent and the dependent variables. The quantitative research approach allows for answering the research questions that deal with the relationships of variables that are measured in quantitative terms to explain or predict a given phenomenon (Leedy & Ormrod, 2005).

The current study is quantitative in nature. Quantitative research endeavours to accomplish the objectives of the research, as well as make empirical estimations that involve numerical measurements and assessments (Kumar, Talib & Ramayah, 2013). The results from the quantitative assessment are communicated in a numerical frame, and the solution concerning the research problem is concluded from the statistical patterns exhibited.

The current study surveyed SMEs taxpayers as organizational taxpayers. The survey approach enables the researcher to enhance the feedback through close communication with the participants through an organized set of survey questions (Sekaran, 2003). Ary, Jacobs and Razavieh (2002) emphasised that a survey research approach collects data from the target subjects by making use of the instruments, such as questionnaires and interviews. A summary of the characteristics of the respondents is gathered to measure their opinions and attitudes towards a certain issue through the research instrument. The present study applied the survey approach to collect quantitative data by means of the questionnaires.

The current study is cross-sectional research; the data were collected only once during the whole study to be analysed and interpreted statistically. Given the fact that the study is concerned with the collection of tax evasion data for a particular period (2017), the cross-sectional approach is considered appropriate for the present

study, owing to resource constraints such as limitation in terms of cost and time (Saunders, Lewis & Thornhill, 2009; Sekaran & Bougie, 2010; Zikmund, Babin, Carr & Griffin, 2010). Therefore, the present study employed the use of questionnaires to collect quantitative information from the targeted respondents.

#### 3.4.3 Population of the Study

Population refers to a group or individuals with similar characteristics who are relevant to the study in context (Best & Kahn, 2003). Cavana, Delahaye and Sekaran (2001) define a population as the entire group of people, events or things of interest that a study attempts to investigate. The current research concentrates on the determinants of income tax evasion. To achieve the purpose, the present study focuses on the Palestinian SMEs as the population of the current study. The present study defines the population as micro, small, and medium-sized enterprises (SMEs) in Palestine. Hence, the target population for the current study is the owners-managers of SMEs in the West Bank region whose opinions were obtained in understanding the determinants of the income tax evasion. The total number of SMEs in the West Bank region is 107,386 (Palestinian Central Bureau of Statistics, 2018).

### 3.4.4 Sample Size of the Study

It is practically impossible for research that investigates all the components of an entire population to collect data, test or examine every component (Sekaran & Bougie, 2010). Therefore, a sample is selected for the examination which is a sub set of the population of the study (Cavana *et al.*, 2001). The sample can be defined as a sub set or some parts of the larger population of the study (Zikmund *et al.*, 2010). The samples of the current study are SMEs selected from the entire population of

SMEs, operating in the West Bank region of Palestine. There are many statistical procedures to determine the appropriate sample size in a research study. Three statistical procedures are available to determine the sample size including the priori G\* Power 3.1 (Faul, Erdfelder, Lang & Buchner, 2007), the rules of thumb (VanVoorhis & Morgan, 2007), and Krejcie and Morgan's table (Krejcie & Morgan, 1970).

The current study's sample size is approximately 383 of the 107,386 SMEs in accordance with the sample size table of Krejcie and Morgan (1970). In order to enhance the findings of the current study and avoid the problem of having a low response rate by the respondents, the sample size was increased to involve 500 respondents as recommended by Israel (1992). His study revealed that researchers increase the sample size by at least 30% to compensate for likely non-response.

### 3.4.5 Sampling Technique

The essence of the random sampling technique is to allow every object of the population to have an equal chance of being chosen (Sekaran, 2003). It is also useful in neutralizing the researcher's bias regarding the selection of sample objects (Salkind, 2012), and enhancement of high generalizability of the findings (Cavana *et al.*, 2001). Stratified sampling technique is divided into a stratified proportionate sampling and stratified non-proportionate sampling (Daniel, 2012). In the stratified proportionate sampling, the sample size of each section is proportionate to the population size of the section, whereas, in the stratified non-proportionate sampling, the different sections have different sampling fractions based on the researcher's allocation (Daniel, 2012).

The stratified proportionate sampling is an unbiased sampling procedure, unlike the stratified non-proportionate in which the researcher can commit errors in assigning the sampling fractions that can lead to skewed results (Daniel, 2012). Thus, the current study utilized stratified proportionate sampling to achieve more objectivity and generalizability. Moreover, the current study used a stratified proportionate sampling technique that divides the population into homogeneous sections, and then the sample is randomly taken from the sections (Zikmund *et al.*, 2010).

Therefore, a proportionate sampling was drawn from the sectors (trade, services, industry, and construction) of the enterprises. A proportion of each sector was estimated based on the number of SMEs in the sectors. For trade sector, the sample size was derived by dividing the number of SMEs (54,060) by the overall population (107,386), which gave rise to 50% of the total population of the SMEs. The sample for the trade sector was then estimated by taking 50% of the total sample size of 500 which is 250. Following the same procedure, the samples for other sectors were also estimated as shown in Table 3.2. The total number of 500 respondents was chosen from the population to distribute the questionnaires.

Table 3.2 *Population and Sample Size by Stratified Proportionate Sampling* 

Sector	Number of SMEs	Percentage of Population	Sample Size
Trade	54,060	50	250
Services	37,199	35	175
Industry	15,544	14	70
Construction	583	1	5
Overall	107,386	100	500

Source: Estimated using data from the Palestinian Central Bureau of Statistics (2018)

To determine the individual SMEs to whom the questionnaires were administered, probability and non-probability samplings are the two (2) main types of sampling

techniques to determine the actual sample. In probability sampling, each component of the population has an equal chance of being selected, whereas the non-probability technique does not provide a pre-determined chance of being selected for all the components (Zikmund *et al.*, 2010). Probability sampling is used within each section to determine the individual SMEs to whom the questionnaires were administered to ensure drawing an unbiased sample from the population which is crucial for wider generalizability (Sekaran & Bougie, 2010). The Microsoft Excel computer program was used to determine the actual respondents who represent the sample. This was done by generating random numbers for the sampling frame of each section of the stratified population.

In research, the sampling frame refers to the list from which a sample may be generated, which leads eventually to the sampling unit, that is the level at which the information is to be collected. Hair *et al.* (2015) identified three (3) characteristics for a proper sampling frame. First, the frame has to comprise a list containing members of the targeted population. Second, the frame has to be completed and contains updated information on the population. Lastly, there should be no redundancy in the sample components.

The present study made use of a comprehensive and up-to-date list of SMEs from the West Bank as its sampling frame. The General Directorate of Income Taxes (GDIT) in Palestine is the only department that has the list of the taxpayers of businesses concerning income tax. However, access to the database of the GDIT is restricted due to the issue of privacy and concerns of confidentiality. The Federation of Palestinian Chambers of Commerce, Industry, and Agriculture (FPCCIA) provides a list of SMEs through an official application procedure. The current study

obtained its data via a formal application which is required by FPCCIA. A total list of 107,386 was provided, out of which 50 was used for the pilot survey and was excluded from the sampling frame of the study. This list was comprehensive and detailed as all SMEs in Palestine are mandated to register with the FPCCIA before obtaining their license.

Therefore, a systematic random sampling technique was utilized in the current study to select 500 respondents from the list provided by the FPCCIA. The sampling interval for the trade sector was (population trade/sample size trade) 54,060/250 = 216. The researcher's first sample from the trade sector begins from number 216 then number 432, until the 250 samples were selected. The same sampling technique was followed to determine the sampling interval for other sectors. The services sector involves 37,199/175 = 213, the industry sector involves 15,544/70 = 222, and construction sector involves 583/5 = 117.

### 3.5 Operational Definitions and Measurements of Variables

The operational definitions and measurements of variables employed for the current study are discussed in subsections 3.5.1 to 3.5.9. The items were adapted from the previous research to measure the variables of the current study. The adaption of the items in the questionnaire involves substantial changes to suit the context of the research. Generally, the researchers follow the general design of the original items, add items, remove items or substantially change the content of the original item/s (Stewart, Thrasher, Goldberg & Shea, 2012).

The current study adapted items from studies (mostly on individual taxpayers) to suit the SMEs taxpayers who are the respondents for the present study. All the items that measure all variables were completely adapted from the original source without dropping any items. Some of the studies from which the items were adapted used 7-point Likert scale. However, for the current study, the measurement scale adapted 5-point Likert scale based on Revilla, Saris and Krosnick's (2013) recommendation stating that the 5-point Likert scale ensures a better quality of data.

#### 3.5.1 Tax Evasion

Tax evasion in the current study is defined as under-reporting income and/or over-stating expenses of business operations. This is in line with the studies that define evasion as a reduction of income or over-stating expenses (Abdul-Jabbar, 2009; Sapiei *et al.*, 2014). According to Sandmo (2005), tax evasion is a violation of the provisions of tax laws. Tax evasion is measured based on self-reports, whereby the taxpayers are taxed based on the return reported (Alm, 2012). In other words, Alm (2012) argued that tax evasion occurs in a situation, whereby a taxpayer resists to report an income which principally should have been taxed.

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Most corporate compliance studies have used audit data from tax authorities (Kamdar, 1997; Joulfaian & Rider, 1998; Joulfaian, 2009; Alon & Hageman, 2013; Tagkalakis, 2013). Other studies have used the self-reporting method (Abdul-Jabbar, 2009; Maseko, 2014; Sapiei & Kasipillai, 2010). In this regard, Abdul-Jabbar (2009) concluded that researchers can only obtain the self-reporting and experimental methods due to the difficulty of getting the audit data from the tax authority. Therefore, Sapiei and Kasipillai (2010) highlighted the difficulty of obtaining data from tax authority due to the privacy of the information.

The current study measured the enterprise's tax evasion by adapting 15 items from Gilligan and Richardson (2005), which originated from a study by Roberts (1994). Gilligan and Richardson's (2005) study consists of 15 items measuring tax evasion among individuals. A 5-point Likert scale was used in the current study as presented in Table 3.3, whereby '1' means "strongly disagree" and '5' means "strongly agree". Higher scores indicate high tax evasion. Reverse coding was used for item five (5) in the current study in order to increase internal validity (Efebera *et al.*, 2004).

Table 3.3

Measurement for Tax Evasion

### **Items**

- 1. It is acceptable not reporting selling or trading goods or services with a friend or neighbour in an enterprise tax return.
- 2. Reporting an enterprise income fully, but not including a small amount of extra outside income.
- 3. It is acceptable to be paid cash for a job and then not reporting it in an enterprise tax return.
- 4. It is acceptable an enterprise not reporting some earnings from interest or investment that the tax administration would not be able to find out.
- 5. It is unacceptable to add a little bit more than you actually spend when reporting an enterprise expenses (reverse coding).
- 6. Since a lot of high earning enterprise taxpayers pay no taxes at all, if an enterprise underpays a little, it is not a big deal.
- 7. It is acceptable an enterprise extending education expenses to include some expenses that are not really education expenses.
- 8. Tax rates are just too high, so it is not really cheating when an enterprise pay less tax then it is supposed to.
- 9. It is acceptable when an enterprise is not really sure whether or not it deserves tax deduction, than it makes sense to take chance and take a deduction anyway.
- 10. With what things cost these days, it is acceptable to cut a few corners on an enterprise tax return just to help pay the bills.
- 11. It is acceptable to hold back a little bit on enterprise taxes since the government spends too much anyway.
- 12. When an enterprise deserves deduction that the tax administration will not let it take, it makes sense to take it to some other place where they will not catch it.
- 13. It is acceptable to under-report a certain amount of an enterprise income since it does not really hurt anyone.
- 14. It is acceptable to cut corners a little on the taxes of an enterprise because chances of getting caught are very low.
- 15. It is all right to occasionally under-report certain income or claim an undeserved deduction if an enterprise is generally loyal and law-abiding.

Source: Adapted from Gilligan and Richardson (2005)

#### 3.5.2 Probability of Detection

Probability of detection has been described as the chances, whereby a tax authority through enforcement could uncover the act of evading tax by a taxpayer (Fischer *et al.*, 1992; Chau & Leung, 2009). In other words, Fischer *et al.* (1992) define detection probability as the perception of the taxpayer towards the possibility of detecting any acts of tax evasion by the tax authority. As for the current study, the probability of detection is defined as the belief of a taxpayer on the likelihood that the tax authority could in the cause of its audit find out any act of income underreporting or the act of over-stating expenses.

The current study adapted three (3) items from Efebera *et al.* (2004) to measure the probability of detection among individual taxpayers. Table 3.4 presents the measures of probability of detection. The measures are based on a 5-point Likert scale; '1' means "strongly disagree" and '5' means "strongly agree". Higher scores mean a high probability of detection.

Table 3.4

Measurement for Probability of Detection

#### **Items**

- 1. There is a likelihood that the tax administration will detect if an enterprise does not report additional extra income.
- 2. In this age of information technology, the tax administration will detect if an enterprise does not report an extra income.
- 3. There is a chance of detection if an enterprise does not report an extra income.

Source: Adapted from Efebera et al. (2004)

# 3.5.3 Tax Penalty

Tax penalty involves the punishment imposed to deter tax evasion. Tax Penalties entail the perception of the magnitude or severity of the tax penalty in terms of fines and jail terms imposed on the acts of the tax evasion (Efebera *et al.*, 2004). A

theoretical economic model by Allingham and Sandmo (1972) clearly showed that tax penalties influence tax compliance. Higher tax penalty attracts greater discouragement for possible tax evasion. James, Murphy and Reinhart (2005) in their study defined tax penalty as the fine imposed by tax authority. In the current study, tax penalty is defined as the perception of the severity of tax penalty and its influence on the taxpayers' tax evasion decisions.

In the present study, tax penalty is measured based on four (4) items adapted from James *et al.* (2005) which originated from the study of Braithwaite (2001). The original instruments by James *et al.* (2005) consist of four (4) items that measure tax penalty among the individual taxpayers. The measures of the current study are based on a 5-point Likert scale. '1' means "strongly disagree" and '5' means "strongly agree". Higher scores show a high tax penalty. Table 3.5 presents the items to a measures tax penalty.

Table 3.5

Measurement for Tax Penalty

#### **Items**

- 1. Taking to court, paying a substantial penalty and the tax with interest will cause a problem for an enterprise.
- 2. Taking to court, paying the tax with interest will cause a problem for an enterprise.
- 3. Paying a substantial penalty and the tax with interest will cause a problem for an enterprise.
- 4. Paying the tax with interest will cause a problem for an enterprise.

Source: Adapted from James et al. (2005)

#### 3.5.4 Tax Fairness

Tax fairness is an important factor in the tax compliance decision. It is a non-economic factor in tax evasion research, and is classified under the perception and attitude variables (Farrar *et al.*, 2017). It is argued that there is an unfair tax system if

taxpayers perceive that they are overpaying taxes compared to what other taxpayers are paying or the value of the public goods and services they receive in return from the government (Chau & Leung, 2009). In this context, previous studies identified tax fairness as a multi-dimensional variable (Gerbing, 1988; Wenzel, 2002).

Tax fairness involves equity of the current tax system and the comparison of what one is paying in relation to other taxpayers (Van Dijke & Verboon, 2010). In line with Abdul-Jabbar's (2009) study, the present study measured tax fairness as a one-dimensional variable. Thus, tax fairness is defined as the perceptions of the taxpayer towards the equity of the tax laws.

The current study which measured tax fairness as a one-dimensional variable used seven (7) items adapted from Gilligan and Richardson (2005), which originated from Gerbing's (1988) study. Gilligan and Richardson (2005) used seven (7) items to measure the general tax fairness in their study. Thus, all seven (7) items were selected and adapted to measure tax fairness in the current study in order to make it consistent with the operational definition of the general tax fairness. One example of these adaptions is that the current study adapted items from previous studies (mostly on individual taxpayers) to suit the SMEs taxpayers who are the respondents in the present study. The Likert scale to measure the items in tax fairness is '1' which means "strongly disagree" and '5' means "strongly agree". Higher scores indicate that the tax system is fair. Table 3.6 presents the items that measure tax fairness. In accordance with Gilligan and Richardson (2005), items 1, 2 and 3 were used in reverse coding, and the current study also adopted the same items in measuring tax fairness.

#### **Items**

- 1. For the average business taxpayers, I think that the income tax system is unfair (reverse coding).
- 2. I believe that the income tax system for businesses is unfair (reverse coding).
- 3. Generally, I consider it an unfair way in which the income tax burden is distributed across business taxpayers (reverse coding).
- 4. Generally, I feel that the income tax is a fair tax.
- 5. Overall, the burden of income taxes is fairly distributed.
- 6. Businesses not pay more than a fair share of the income tax burden.
- 7. The share of total income taxes paid by businesses is not too high.

Source: Adapted from Gilligan and Richardson (2005)

#### 3.5.5 Peer Influence

Taxpayer's compliance behaviours can be influenced by the behaviour of peers, who have acquaintances with or may have information on their conduct (Alm *et al.*, 2016). In the same vein, Alm *et al.* emphasized that the information on the peer influence i.e. the knowledge about the (non)/compliance of neighbours who do or do not comply with the provisions of the tax laws, can affect the taxpayer's behaviour even in an unintentional way. Similarly, in the context of tax evasion, it means that if many taxpayers are evading taxes, other taxpayers are affected and are encouraged more to evade taxes. Thus, the current study defined peer influence as the effect of information about other taxpayer's evasion or compliance on the tax evasion decision of another taxpayer.

Therefore, the current study measured peer influence using six (6) items adapted from Braithwaite (2001) who measured the tax evasion among individuals. The items used 5 Likert scale involving '1' which means "strongly disagree" and '5' which means "strongly agree". Higher scores show a strong peer influence. Table 3.7 presents the items of peer influence. In the items used in measuring peer influence

which are adapted from Braithwaite (2001), a reverse coding was used for the item 5 in the current study to increase the internal validity of the measurement scale (Efebera *et al.*, 2004).

Table 3.7

Measurement for Peer Influence

#### **Items**

- 1. Most of the enterprises think they should honestly declare cash earnings on their tax return.
- 2. Most of the enterprises think it is unacceptable to overstate deductions on their tax return.
- 3. Most of the enterprises think that the tax they pay is fair given the services they get from the government.
- 4. Most of the enterprises prefer to pay taxes regardless of the size of services offered by the government.
- 5. Most of the enterprises think not paying income tax is a trivial offence (reverse coding).
- 6. Most of the enterprises think that the government conducts actions that encourage taxpayers to pay their taxes.

Source: Adapted from Braithwaite (2001)

#### **3.5.6 Tax Rate**

The tax rate determines the amount of tax paid by the taxpayers based on their taxable income (Mansor & Gurama, 2016). The tax rate remains an important factor in shaping tax compliance behaviour even though the exact effect is still debatable (Kirchler, 2007). The current study focuses on the fairness perception of the tax rate. Sapiei *et al.* (2014) defined tax rate as the perceived fairness of the tax rate structure and the burden of distribution. In line with this definition, the current study defined tax rate as the perception of the SMEs taxpayers towards the fairness of the tax rate in relation to SMEs' size and profit performance.

Therefore, the current study adapted three (3) items from Abdul-Jabbar (2009) to measure SMEs' perception of the tax rate. The measures were originally from

Christensen *et al.* (1994), and Abdul-Jabbar adapted them for the corporate taxpayers. The original instrument by Abdul-Jabbar (2009) measured the perception of the tax rate using three (3) items. Table 3.8 presents these items based on a 5-point Likert scale; '1' means "strongly disagree" and '5' means "strongly agree". In Palestine, the SMEs are treated as individuals, whereby they are subject to progressive tax rates, whereas large companies are subject to a flat tax rate. Higher scores show a high agreement that SMEs taxpayers prefer the progressive tax rates.

Table 3.8

Measurement for Tax Rate

#### **Items**

- 1. The tax rate should be different for every enterprise according to their size (small, medium, or large).
- 2. Large enterprises have a greater ability to pay income tax, so they should pay a higher rate more than small and medium.
- 3. High-profit enterprises should pay a higher rate of tax more than low-profit enterprises.

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Source: Adapted from Abdul-Jabbar (2009)

# 3.5.7 Corruption

Corruption involves extra payments to the public officials for illegal corruption transaction (Collins, Uhlenbruck & Rodriguez, 2009). It is controversial to measure corruption due to its deviant nature. Previous studies provided several approaches to measure corruption. For instance, Olken and Barron (2009) and Sequeira (2009) measured corruption based on a direct observation and Bird *et al.* (2008) used a perception survey. It is observed that it is easier to measure corruption by asking the respondents about their perceptions towards corruption rather than using direct observations of corruption acts (Olken & Pande, 2012).

The current study measured corruption between taxpayers and tax officials based on the perceptions of the SMEs taxpayers. In line with Martin, Cullen, Johnson and Parboteeah (2007), the current study defined corruption as SMEs perceptions about giving bribes to the government officials such as tax authority staff to get things done illegally e.g. reducing their tax liability.

The current study measured corruption using six (6) items adapted from Martin *et al*. (2007), which is derived originally from the study of Inglehart, Basanez, Diez-Medrano, Halman and Luijkx (2000). The original instrument by Martin *et al*. (2007) measured corruption among firms using six (6) items. Table 3.9 presents the six (6) items measuring corruption. The items are based on a 5-point Likert scale; '1' means "strongly disagree" and '5' means "strongly agree". Higher scores illustrate a strong corruption.

Table 3.9

Measurement for Corruption

Measurement for Corruption

# **Items**

- 1. It is common that an enterprise pays some irregular additional payments to get things done.
- 2. An enterprise needs to make extra, unofficial payments to public officials to get connected to public services.
- 3. An enterprise needs to make extra, unofficial payments to public officials to get licenses and permits.
- 4. An enterprise needs to make extra, unofficial payments to public officials to deal with taxes and tax collection.
- 5. An enterprise needs to make extra, unofficial payments to public officials to gain government contracts.
- 6. An enterprise needs to make extra, unofficial payments to public officials when dealing with customs/imports.

Source: Adapted from Martin *et al.* (2007)

#### 3.5.8 Economic Domination

The domination of Israel on Palestine is represented through the Palestinian economic management in the external trade relations in terms of the financial and monetary issues, particularly in tax administration (Fjeldstad & Al-Zagha, 2004). In the current study, the economic domination is defined as the effect of Israel's economic constraints on SMEs taxpayers through various procedures, burdens, and limitations which could affect their decisions regarding tax evasion.

Therefore, the current study adapted all three (3) measures from Yu and Cannella (2007), which originated from the World Economic Forum survey (2006). Table 3.10 presents the items of the economic domination. The current study used the items based on a 5-point Likert scale. In the scale, '1' means "strongly disagree" and '5' means "strongly agree". Higher scores show a high economic domination.

Table 3.10

Measurement for Economic Domination

#### Items

- 1. Israeli economic constraints and administrative procedures cause obstacles for an enterprise to cooperate with tax administration and tax filing.
- 2. Israeli economic constraints imposes an extra burden on an enterprise tax matters.
- 3. Impact of Israeli economic constraints on an enterprise causes irregular payments connected with import and export permits, business licenses, and tax assessments.

Source: Adapted from Yu and Cannella (2007)

# 3.5.9 Public Spirit

Public spirit is the moderating variable in the current study. Having a high public spirit entails behaving in some instances to think of others when taking a stand rather than in favour of one's self-interest (Kelman, 1987). According to Andriani (2015), the public spirit is a good attitude adopted by the people which leads to benefits for

the public, even if this can lead to a personal cost and the reduction of one's personal benefit. In line with Andrian, the current study defines the public spirit as a positive attitude adopted by the SMEs taxpayers in paying income tax for the benefits of the community even though this might incur a cost or reduce gains of the taxpayers.

The current study measured public spirit based on a 5-point Likert scale using six (6) items adapted from Anderiani (2015) to measure the public spirit among the individual taxpayers. Table 3.11 presents the items; '1' means "strongly disagree" and '5' means "strongly agree". The following six (6) items were all reverse coded, so that a higher score means a higher public spirit.

Table 3.11

Measurement for Public Spirit

#### **Items**

- 1. It is acceptable to be absent from work without reasonable reasons.
- 2. It is acceptable to be abstention from elections.
- 3. It is acceptable to take bribery at work.
- 4. It is acceptable to be not committed to traffic rules.
- 5. It is acceptable to buy stolen products.
- 6. It is acceptable to find a wallet and not giving it to the police.

Source: Adapted from Anderiani (2015)

# 3.5.10 Demographic Variables

The eight (8) demographic variables for the respondents of the current study included years of operation, the business activity, number of employees, the annual business, business capital, the current position of the respondents in their respective enterprises, type of enterprise ownership, and tax return information.

The current study used total of 53 items to measure all the variables. Table 3.12 provides the summary of the variables, number of items, and their sources.

Table 3.12 Summary of Variables, Number of Items and their Sources

Variables	No. of Items	Sources		
Tax Evasion	15	Gilligan and Richardson (2005)		
Probability of Detection	3	Efebera et al. (2004)		
Tax Penalty	4	James et al. (2005)		
Tax Fairness	7	Gilligan and Richardson (2005)		
Peer Influence	6	Braithwaite (2001)		
Tax Rate	3	Abdul-Jabbar (2009)		
Corruption	6	Martin <i>et al</i> . (2007)		
<b>Economic Domination</b>	3	Yu and Cannella (2007)		
Public Spirit	6	Anderiani (2015)		
Total	53			

# 3.6 Questionnaire Design and Validity Test

The current study adopted a multi-items scale for the variables of the study since this would provide a complete assessment of the variables and the model as a whole in line with the suggestions of Garland (1991) and Ackfeldt and Coote (2005). The items were adapted according to the context of the current study and were validated through different measures during the pilot study. In addition, the operationalization of variables is done using a 5- point interval scale which ranged from 1 (strongly disagree) to 5 (strongly agree). The selection of the interval scale is carried out based on the recommendations of Zikmund *et al.* (2010) who observed that it is possible to perform powerful statistical calculations like the standard deviation and variance. The scale used in the instrument is interval. As for demography it is achieved categorically. To increase the internal validity, some of the measurement scale was structured with items that are negatively worded (Efebera *et al.*, 2004).

The questionnaire is developed based on the literature review, including the variables that are explained in Chapter Two. The questionnaire is organized in two (2) parts, as follows. Part A involves the demographic data of the enterprises, and

Part B is concerned with the variables examined in the current study. As for Section One (1), it is related to tax evasion. Section Two (2) is concerned with probability of detection. Section Three (3) is related to tax penalty. Section Four (4) involves items about tax fairness. Section Five (5) is related to peer influence. Section Six (6) includes items about tax rate. Section Seven (7) is related to corruption. Section Eight (8) is concerned with the economic domination. Finally, Section Nine (9) is related to the public spirit.

The questionnaire in the current study is initially designed in English language. However, since the respondents of the current study are native Arabic speakers, the questionnaire is translated into Arabic language and it was put through back translation process to guarantee the quality of translation.

Based on the suggestion of Brislin's (1970) and Douglas and Craig (2007), the process for back-translation was followed in the current study.

1. Recruitment of two (2) translators who are competent and familiar with the source language and the contents of the questionnaires.

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- 2. Two (2) weeks were given to one (1) of the translators to translate the instrument from the source language into the target language.
- 3. Other two (2) weeks were given to a bilingual translator to retranslate the questionnaire from the target language into the source language.
- 4. Then, the two (2) translators were asked to evaluate the original questionnaire and the back-translated version of the questionnaire to check the errors of differences in the meaning.

5. A test of the two (2) versions of the questionnaire was administered on the targeted language-speaking respondents; the English version was given to some, whereas others were given the translated version.

Both the English and Arabic versions of the questionnaire can be found in the Appendix A and B, respectively.

The design of the questionnaire was structured in a booklet format with a proper arrangement. Creswell (2009) contended that the questionnaire's presentation of the items on the pages and physical appearance of the questionnaire are fundamental for the accomplishment of the study objectives. Similarly, carefully structured questionnaire makes data collation as well as data analysis an easy process (Sekaran & Bougie, 2010). Therefore, the design of the questionnaire for the current study considered all the important factors.

To guarantee the items in the instrument, content/face validity was carried out in the present study. The content validity includes interviews with three (3) academicians in accounting discipline, and other three (3) were from the Palestinian tax authority. Also, three (3) SMEs proprietor/managers in the West Bank refined the questionnaire to guarantee its precision and validity. The specialists affirmed that the survey instrument ought to be short, simple as well as comprehensible to be answered by the respondents. The items were assessed for development flaws, flow, clarity and sequencing. Based on the suggestions received, the questionnaire was amended as required.

In summary, the formulated questions followed a rigorous review and extensive assessment process, including the review by experts in order to ensure that the questionnaire was clear and comprehensible for the targeted participants. In addition, the respondents' anonymity was reassured in order to obtain reliable responses/opinions and participation. Likewise, the questionnaire clearly specified the purpose and benefits of the study in order to encourage the respondents to give sincere answers, while soliciting their cooperation.

# 3.7 Pilot Study and Reliability Test

Zikmund *et al.* (2013) described the pilot study as a research on a small-scale which aims at collecting data from the respondents similar to those involved in the main study. As for the validity tests, the pilot study is another method to improve the validity of the survey instrument. Thus, the current study conducted a pilot study to obtain feedback for enhancing the procedures of the main data collection. The pilot study procedures helped in improving the reliability of the research instrument. The pilot study was carried out to ensure the reliability of measuring the items used in the study. Reliability is established when these items are able to measure a particular variable, thus consistently giving the same outcome more than a single time (Salkind, 2012). In most pilot studies, the sample is generally small (Fink, 2003) and is usually increased to 100 responses (Dillman, 2007). A number of 15 to 30 respondents is considered sufficient though it can be more than that, specifically when the test involves a number of levels (Malhotra, Hall, Shaw & Oppenheim, 2007).

Hence, the current study administered 50 questionnaires to the owners-managers and other officers capable of providing information about the organization (such as administrator officers of accountants). The respondents were randomly selected from the population (sampling frame) of the study in the West Bank region totalled as 107,386 SMEs (Palestinian Central Bureau of Statistics, 2018). Out of the 50 distributed questionnaires, 34 were collected and two (2) were not properly completed, so only 32 responses were used for the analysis.

Different methods for testing reliability exist; however, the Cronbach's Alpha remains the most common method used for confirming inter-item reliability as well as consistency (Sekaran & Bougie, 2010). The coefficient of Cronbach's Alpha shows the degree of consistency of items used to measure any particular variable.

For Cronbach's Alpha, a coefficient of 0.60 is recognized as an average reliability whereas coefficients ranging from 0.70 and above is considered to have achieved a high reliability of measurement (Sekaran & Bougie, 2010; Hair, Hult, Ringle & Sarstedt, 2017). The outcome of the reliability test of the items in the current study is presented in Table 3.13. The value of Cronbach's Alpha was found to be in the range of 0.726 and 0.834. This implies that all these variables' reliability falls within the range above 0.70 which is considered highly reliable based on the recommendation by Hair *et al.* (2017).

Table 3.13 *Items Reliability Test Result in the Pilot Study* (n=32)

Variables	<b>Number of Items</b>	Cronbach's Alpha
Tax Evasion (TE)	15	0.726
Probability of Detection (POD)	3	0.782
Tax Penalty (TP)	4	0.812
Tax Fairness (TF)	7	0.748
Peer Influence (PI)	6	0.758
Tax Rate (TR)	3	0.739
Corruption (CO)	6	0.834
Economic Domination (ED)	3	0.745
Public Spirit (PS)	6	0.817

#### 3.8 Data Collection Procedure

There are different types of survey instruments, a common approach is the use of survey questionnaires and interviews. Questionnaires may be administered in person, via email, by web or faxing, whereas the interviews can be through the telephone or face-to-face (Zikmund *et al.*, 2013). For the current study a self-administered data collection method was used in order to gain more reliable responses from the survey; this method has the potential of achieving a higher rate of response and also improves the validity of the study (Sekaran, 2003). Zikmund *et al.* (2013) defines a self-administrated survey questionnaire as a method in which the respondent assumes the responsibility of reading and responding to the questions items in the questionnaire.

The self-administered questionnaire method gives room for the respondents to conveniently provide answers to the questions in the questionnaire (McShane & Glinow, 2012). The method also provides a chance to the researcher to clarify verbally to his respondents the significance of his/her study. The researcher can also create a rapport and motivate the respondents, as well as clarify the issues about the

questionnaires whenever needed. The researcher can also clarify issues related to doubt, difficulty, and sensitivity of the matter in the questionnaire. The self-administered type of questionnaire can ensure the respondents' anonymity (Sekaran & Bougie, 2016).

Furthermore, it is time-saving to distribute the questionnaires directly as it facilitate the collection of all the completed responses within the time frame. Also, using this technique gives the researcher the opportunity to enlighten the participants on the benefits of the research, thereby giving them the confidence to respond to the questions with honesty (Sekaran, 2003). Therefore, many existing studies in the area of taxation have employed this self-administrated technique (e.g. Abrie & Doussy, 2006; Favere-Marchesi, 2006; Venter & De Clercq, 2007; Mohdali & Pope, 2014; Kamar, 2015).

In the current study, the questionnaire was used as an instrument for data collection **University Utara Malaysia** and was distributed across two (2) months period (from 1<sup>st</sup> of September to 31<sup>st</sup> of October 2018). The questionnaires were administered personally by hand, considering the advantages of this method. The questionnaire cover letter includes information regarding the research goals, the key concepts in the research, and the participant's cooperation and anonymity. The cover letter ended with an appreciation message to the respondents for their cooperation, time as well as efforts to participate.

Dillman, Smyth and Christian (2014) showed that the response rates acquired with follow-up will be generally higher than those without a follow-up. Thus, a follow-up through personal visits and phone calls were utilized as a reminder for the

respondents who did not respond in time as recommended by Dillman *et al.* (2014). However, late responses may be interpreted due to a lack of attention or obligations particularly on the part of respondents. In other words, the functions of the ownersmanagers are busy and highly dynamic. Hence, their available time to respond to the questionnaires might be limited. The first reminder for the current study was sent after 14 days from the first day of distributing the questionnaires. A second reminder was sent two (2) weeks after the first reminder.

The first step in data collection started with obtaining the official letter from the dean of Othman Yeop Abdullah Graduate School of Business (OYAGSB), Universiti Utara Malaysia. According to Sekaran and Bougie (2016), the cover letter includes an introduction of the researcher and the purpose of research to facilitate data collection by seeking the support of the respondents.

#### 3.9 Data Analysis Techniques

As mentioned earlier, the current study assesses the determinants of tax evasion among the Palestinian SMEs. After the collection of data to accomplish the study objectives, a preliminary analysis was first carried out followed by the main data analysis. In the preliminary analysis, treatments of issues, such as outliers, missing values, the test of normality, multicollinearity, and the non-response bias as well as common method variance (CMV) were employed. These analyses aimed at making sure that the collected data satisfies the requirement for multivariate analysis. In addition, the assessments are necessary conditions before conducting a multivariate analysis and can also enhance the researcher's understanding of the data collected (Hair *et al.*, 2017).

The first step in the preliminary analysis is coding the data collected. The valid questionnaires obtained from the field survey were coded using SPSS. Then, the negatively worded items in the survey were reverse-coded. There were only 11 negatively-worded items in the survey, mainly TE5, TF1, TF2, TF3, PI5, and all the six (6) public spirit items. These data were then screened during the entry into SPSS. After the data were devoid of error, the next step in the preliminary analysis was addressing the missing value cases.

After the first stage, the main analysis of the data was conducted, employing the smart PLS-SEM application. The PLS-SEM is suitable for the current study because of its robustness. As it has been expanded comprehensively, it could be applied in many areas of research, particularly social and management sciences, such as taxation and related areas (Pavlou & Fygenson, 2006; Henseler, Ringle & Sinkovics, 2009; Hair, Ringle & Sarstedt, 2013; Hair et al., 2017). In addition, PLS-SEM is also an appropriate technique employed in the analyses of multiple causal modelling associations (Lowry & Gaskin, 2014). Likewise, this is in agreement that PLS-SEM is found to be most appropriate for models containing large amounts of exogenous latent variables used in explaining few endogenous latent variables (Haenlein & Kaplan, 2004; Hair et al., 2017). Furthermore, Chin, Marcolin and Newsted (2003) and Vinzi, Trinchera and Amato (2010) also agrees that PLS-SEM is a possible option for examining the indirect effect. Consequently, for carrying out the main analysis of the study, PLS-SEM was employed in analysing the main objectives of the study.

The main analysis included two (2) main evaluations. In the first place, the evaluation of the measurement model deals with the reliability of the measures. The second stage is the appraisal of the structural model, which incorporates the level of the effect of the exogenous factors on the endogenous variable.

The measurement model incorporates the association between measurements and the particular variable measured (Hair *et al.*, 2017). The model links the measurements of a study and their respective variables. The outcome of estimating a measurement model is known as path coefficients, which represent the proportion of variation in a dependent variable, accounted for by a unit increase in the independent variable (Hair *et al.*, 2017). The proportion of the variation could have a positive or negative value that increases or decreases respectively. This is addressed in the model from the path line values.

The present study estimated the measurement model using PLS-SEM to verify the **Universiti Utara Malaysia** reliability of the individual items, internal consistency, and the convergence and discriminant validities when measuring the variables (Hair *et al.*, 2017). Where, individual item reliability confirmed as item's outer loading, which represents the role of the item in explaining the variable. In determining the reliability of the individual items, the current study employed the outer loading of the item (Hair *et al.*, 2017). The outcome of the outer loadings of the items in the study were compared with the stipulated threshold value (0.50 and above) (Hulland, 1999).

Moreover, internal consistency reliability used in determining the consistency of the outcomes across the items. It ascertains the similarity in terms of scores among the items used to measure a particular variable. Also, the composite reliability is a

measure of the internal consistency reliability with values above 0.70. Nevertheless, values between 0.60 and 0.70 are also acceptable (Hair *et al.*, 2017). Furthermore, convergent validity aims to measures the correlation among the items used to measure a particular variable (Hair *et al.*, 2017). Therefore, the items that measure a particular variable are likely to converge with a strong proportion of the variance. At the level of the variable, the average variance extracted (AVE) is the frequently used measurement for establishing the convergent validity. Accordingly, the value ought to be greater than 0.50 (Hair *et al.*, 2017).

Finally, discriminant validity represents the degree by which a particular variable truly differs from other empirically. The outer loading of the items for a variable ought to be higher than those of cross-loading against other variables. Also, the value of the square root of AVE for one (1) variable has to be greater than its highest correlation with any other variables (Fornell Larcker Criterion) (Hair *et al.*, 2017).

When the assessment of the measurement model is concluded, the next step is the assessment of the structural model. The structural model is concerned with the assessment of the relationships between exogenous and endogenous latent variables in the model as well as the predictive capability. This mainly involves four (4) different assessments: 1) assessment of the coefficient of determination, 2) assessment of the effect-size, 3) assessment of the predictive relevance and 4) assessment of the significance of path coefficients through bootstrapping procedures.

In the current study, assessing the significance of the path coefficients entails both direct and moderating relationships. Where coefficient of determination refers to the R-square ( $R^2$ ) value. Structural models are usually evaluated using this method of R-

square (Hair *et al.*, 2017).  $R^2$  value depicts the total variance in the endogenous variable which is accounted for one (1) or more exogenous variables (Hair, Black, Babin & Anderson, 2010). This value can be either be weak, moderate or strong according to the coefficients such as 0.02, 0.13 and 0.26, respectively in the case of an endogenous latent variable in a structural model (Cohen, 1988). In addition, the effect size refers to the  $f^2$  value, whereby after assessing the combined effect of the variables in the model on the endogenous variable, the individual effect is also measured using the  $f^2$  value. Hence,  $f^2$  serves as a useful method for evaluating relatively the individual effect of the latent exogenous variable against the endogenous variable (Hair *et al.*, 2017). In other words,  $f^2$  simply shows the effect a particular exogenous latent factor on the dependent variable.  $f^2$  values such as 0.02, 0.15 or 0.35 are respectively regarded as having a small effect, a moderate effect or a strong effect, respectively (Cohen, 1988).

Moreover, predictive relevance is depicted as  $Q^2$  value, and it measures the inner model's ability to predict the indicators of the endogenous variable. This implies that the assessment of the predictive strength among variables is an important process in the structural model. In addition,  $Q^2$  refers to the model's strength of prediction a blindfolding procedure is used. For  $Q^2$  values that are higher than 0, the model's exogenous variables are said to have predictive significance for the endogenous variable in the model (Hair *et al.*, 2017). Finally, the significance of path coefficients are the measurements of the associations within the latent variables of the model measured, whereby the bootstrapping is normally used to measure the significance of the variables path coefficients. The standard condition stipulates that the lowest number of samples bootstrapped when compared with the number of valid

observations should be equal or large in number which is about 5,000 (Hair *et al.*, 2017).

The moderating relationships are also examined under the structural model based on the bootstrapping procedure. To estimate the moderation and the moderating effects, the current study adopted the product indicator approach via PLS-SEM (Chin *et al.*, 2003; Henseler & Chin, 2010; Henseler & Fassott, 2010). The product term approach which is considered equal or better than the group comparison approaches (Henseler & Fassott, 2010) is deemed to fit for testing the moderation effect in the present study. The product term approach involves the product of the interaction between the exogenous variables (probability of detection, tax penalty, tax fairness, peer influence, tax rate, and corruption) and the moderator (public spirit) in which the product serves as indicators of the interaction term in the structural model (Kenny & Judd, 1984). In addition, Cohen's (1988) rules were followed with regard to the estimation of the effect size in order to determine the strengths of the moderating effects.

# 3.10 Chapter Summary

In this chapter, the research framework and hypotheses development were discussed. The research framework of the current study was established based on Fischer model as well as the guidance of the prior studies. Similarly, the hypotheses development was also achieved in line with the relevant studies to establish the direct and moderating relationships among the variables of the study. The chapter proceeded with the discourse of the research design that depended on the questionnaire survey research on the Palestinian SMEs in the West Bank region. The chapter further included the pilot study that is fundamental to enhance the primary procedure of data gathering. At this point, the methodology of the data collection is discussed. The chapter ended with the procedures for data analyses utilized in the current study. SPSS and Smart PLS were the tools used to carry out the preliminary and main data analyses.

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# CHAPTER FOUR ANALYSIS AND FINDINGS

#### 4.1 Introduction

Chapter Four introduces the analysis and presentation of the findings of the present study. It involves the preliminary analysis of data which involves data capturing, coding, cleaning, missing data treatment, and determination and elimination of the outliers. It also discusses the normality of the data collected and the descriptive analysis of the latent variables. After the presentation of the preliminary analysis results, the chapter further presents the results of the study's models comprising the measurement and the structural models. The measurement model deals with the assessment of the indicators of the variables under examination. Regarding the structural model, known as the outer model, it involves the link among the variables in the model. The outcome of the analysis of the structural model involves testing the hypotheses formulated for the current study. In addition, the chapter discusses and presents the results of the effect size and the predictive relevance of the model.

# **4.2 Response Rate**

The data for the survey was collected within two (2) months (September and October 2018). The researcher collected the data from SME enterprises in the West Bank region of Palestine. After the period of two (2) months, a total number of 192 out of the 500 questionnaires distributed was returned by the respondents. Hence, this led to a response rate of 38%. Having examined the 192 returned questionnaires, seven (7) questionnaires were found not to be dully completed, and thus they were removed from further analyses. Consequently, a total number of 185 questionnaires, equating to an effective and valid response rate of 37%, was found usable for further

analyses. According to Sekaran and Bougie (2016), a minimum response rate of 30% is acceptable for survey research. In this regard, Baruch and Holtom (2008) also recommended that about 30% is acceptable as a response rate from the organizational perspective.

The current study has a response rate of approximately 37% which may be a result of many factors comprising the nature of the study, the respondents of the study, the sensitive issue under investigation and the time required for the completion of the survey. Also, the owners-managers' functions are very dynamic and cumbersome. Hence, the available time for them to answer and complete the questionnaires might be limited. The response rate of the present study is depicted in Table 4.1.

Table 4.1

Response Rate of the Questionnaires

Response	Rate
Questionnaires administered	500
Questionnaires not returned	(308)
Questionnaires returned Universiti Utara Malawsia	192
Questionnaires not duly completed (excluded)	(7)
Usable questionnaires	185
Response rate (192/500)	38%
Valid response rate (185/500)	37%

Note: 184 questionnaires were used in the final analysis after deleting 1 case due to the univariate outlier.

The response rate of the current study was considered relatively acceptable when comparing it with the previous studies on the Palestinian SMEs. For instance, the previous studies' response rates are as follows, 55.5% in Herzallah and Mukhtar (2016), 58.6% in Herzallah, Gutierrez and Munoz Rosas (2014), and 69.7% in Al-Madhoun and Analoui (2003). The high response rate in the above mentioned studies was due to that it is did not highlighted any sensitive issues such as tax evasion as a

criminal act compering with the current study. For example, Herzallah and Mukhtar (2016) studied the trust on the acceptance of e-commerce services in SMEs. Similarly, Herzallah *et al.* (2014) studied the total quality management practices in SMEs. Likewise, Al-Madhoun and Analoui (2003) studied managerial skills and SMEs' development. The current study includes sensitive issues because the law considers tax evasion as a criminal act (AlAdham *et al.*, 2016); therefore, detection under-reporting income and/or over-stating expenses of taxpayers can lead to imposing a fine, summoning the taxpayer to a court or even issuing a warrant for arrest (Sapiei *et al.*, 2014).

#### **4.3 Missing Value Analysis**

In the current study, the cases of missing data were checked, and some questionnaires of randomly missing data were found. Out of the 192 questionnaires, seven (7) questionnaires were discovered, with more than half of the questions in the questionnaires were unanswered. As recommended by Hair *et al.* (2017), any case having a greater number of missing data is subject for deletion, whereby the identified seven (7) cases were removed completely because the sample is considered adequate. In addition, other 43 data points, amounting to 0.43% of the 9,805 points, were also found randomly missing as shown in Appendix C.

In line with the recommendation of Tabachnick and Fidell (2013) and Hair *et al.* (2017), these cases of the missing data were replaced by using the mean value. This is because the percentage of the missing values was below the standard 5% rule of thumb allowed for the replacement of the missing data. As illustrated in Table 4.2, the missing values of all the variables and the distribution of the missing values are presented. Tax evasion had the highest number of 9 missing values, followed by tax

penalty, peer influence, and the public spirit with 6 missing values for each. Also, corruption had 4 missing values, whereas the remaining variables comprising probability of detection, tax rate, tax fairness, and economic domination individually had 3 missing values for each.

Table 4.2

Total of Missing Values in the Variables

Variables	<b>Number of Missing Values</b>
Tax Evasion	9
Probability of Detection	3
Tax Penalty	6
Tax Fairness	3
Peer Influence	6
Tax Rate	3
Corruption	4
Economic Domination	3
Public Spirit	6
Total	43

#### **4.4 Outliers Analysis**

In a set of data, irregular observations may be observed or a subset of observations may contain some values that are not consistent with the general pattern of the data. This kind of irregular observations is normally referred to as the outlier (Barnett & Lewis, 1994). As described by Hair *et al.* (2010), the outliers are the values that contain abnormal characteristics, and they are totally different and distinct from other values. In other words, outliers are out-of-range values in a given dataset. Based on this description, it is believed that the existence of irregular observations in a particular dataset meant for regression analysis has a tendency of negatively affecting the regression coefficients estimates which can consequently render the results of the analysis as inaccurate (Verardi & Croux, 2009).

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The detection of outliers can be done through stages. The first stage is the analysis of frequency statistics which is achieved by creating a frequency table for all the variables to determine whether there are any values outside the minimum and maximum ranges. Having followed this step in the current study, all the data were between the maximum and minimum ranges. The second stage is the evaluation of the univariate outliers. As suggested by Hair *et al.* (2010), a cut-off standardized value of  $\pm$  4 (p < 0.001) is accepted for assessing the data for univariate outliers. Based on this standard, the current study found one (1) case of a univariate outlier as shown in Appendix D.

Third, the present study handled the cases of outliers using the Mahalanobis distance  $(D^2)$ .  $D^2$  is a distorted case that is different and distinct from other cases in a data set (Tabachnick & Fidell, 2007). Hence, the  $D^2$  was computed through a linear regression method in SPSS. This was based on the number of the study's independent variables, whereby eight (8) denotes the degree of freedom in the Chisquare table with p < 0.001 as shown in Appendix E. Arising from this, the benchmark is 26.13 (Tabachnick & Fidell, 2013). The implication of this, therefore, is that any case with a minimum  $D^2$  value of 26.13 is a multivariate outlier and should be deleted. Based on this, the same case above in the univariate outlier was found to be an outlier as shown in Appendix F. Consequently, only one (1) questionnaire was deleted from further analyses because it constitutes a multivariate outlier. Hence, 184 questionnaires finally emerged from the data set after conducting the omitted case.

# **4.5 Normality Test**

Normality is the degree to which the sample data distribution corresponds to the values on the variables clustered around the mean in a normal curve or bell-shaped (Hair *et al.*, 2010). According to Hair *et al.* (2017), skewness and kurtosis values are the most common techniques used for estimating the data normality. Skewness and kurtosis test is conducted to verify data normality since highly skewed or kurtotic data can lead to increase the bootstrapped standard error estimates, which led to a miscalculation of the statistical significance of the path coefficients may arise (Dijkstra, 1983; Ringle, Sarstedt & Straub, 2012).

On one hand, skewness is described by George and Mallery (2006) as a measurement that explains the extent of deviation of data distribution from the centre of the mean. For data to be described as being normal, the values of skewness should be within a range of +3 to -3 (Kline, 1998). Following the recommendation of Kline (1998), the results in Table 4.3 indicate that the values of skewness of the variables of the present study were within the range of +3 and -3, thus signifying that the data have a normal distribution. It is also recommended by Kline (2016) that the data only become problematic when the absolute value for skewness is more than 3.

On the other hand, kurtosis is a measurement which indicates whether the data group is flat or peaked relative to a normal distribution (Hair *et al.*, 2017). Kurtosis can have either positive or negative values. Positive values, according to George and Mallery (2006), indicate that the distribution is flatter, whereas negative values show a peaked distribution. As indicated in Table 4.3, the current study conducted the kurtosis test for all variables and the values fell within the ideal recommended range

(+7 and -7) by Byrne (2010) and Curran, West and Finch (1996). According to Kline (2016), kurtosis becomes a problem when its absolute value is more than 10.

In sum, the results of the normality test show that the current study did not violate the assumption of normality. The data representing the variables of the present study have a normal distribution because the values for all variables were less than the standardized cut-off values which mentioned above that skewness range of (+3 and -3) and Kurtosis range of (+7 and -7).

Table 4.3

Normality Test Results of Skewness and Kurtosis

Variables	Skew	ness	Kurtosis		
Variables	Value Std. Error		Value	Std. Error	
Tax Evasion	-1.588	0.179	4.703	0.356	
<b>Probability of Detection</b>	0.664	0.179	-0.501	0.356	
Tax Penalty	0.181	0.179	-1.406	0.356	
Tax Fairness	0.291	0.179	-1.190	0.356	
Peer Influence	0.129	0.179	-0.929	0.356	
Tax Rate	-0.579	0.179	-0.781	0.356	
Corruption	0.088	0.179	-0.942	0.356	
<b>Economic Domination</b>	-0.555	0.179	-0.628	0.356	
Public Spirit	-0.593	0.179	-0.797	0.356	

# 4.6 Multicollinearity Test

Multicollinearity in statistical analysis refers to a situation when there is a high correlation between two (2) or more independent variables in a particular multiple regression model (Sekaran & Bougie, 2010). The existence of multicollinearity between the exogenous latent variables may alter the tests of the statistical significance and the estimates of regression coefficients (Pallant, 2007; Tabachnick & Fidell, 2007). Hair *et al.* (2010) strongly recommended a test of multicollinearity between the independent variables prior to the actual testing of the study model. The

existence of the multicollinearity between the independent variables can lead to an estimation problem that produces a weak or strange estimate of the regression coefficient, decreases the power of the statistical test of the interaction, and increases the standard error (Hayes, 2013; Hair *et al.*, 2017).

The current study adopted two (2) distinct methods to check the existence of the multicollinearity (Chatterjee & Yilmaz, 1992; Peng & Lai, 2012). The first method required vetting the correlation matrix of the independent variables. Based on the recommendation of Sekaran and Bougie (2010), a high correlation arises when the correlation values are 0.7 and above. However, the recommendation of Hair *et al.* (2010) in this respect differ as it was suggested that the inter-correlation values above 0.9 are regarded as a high correlation. The statistical result as shown in Table 4.4 reveals that the correlation matrix of all exogenous latent variables is within the standard acceptable range, thus indicating that there is no problem of multicollinearity among the variables.

Table 4.4

Correlation Matrix for Multicollinearity Test

Variables	POD	TP	TF	PI	TR	CO	ED	PS
Probability of Detection (POD)	1 1							
Tax Penalty (TP)	.100	1						
Tax Fairness (TF)	.204**	.060	1					
Peer Influence (PI)	.245**	.181**	.370**	1				
Tax Rate (TR)	178**	151*	279**	160*	1			
Corruption (CO)	053	035	098	104	.121	1		
Economic Domination (ED)	122	067	010	.008	.103	.162*	1	
Public Spirit (PS)	065	044	228**	009	.178**	016	.134	* 1

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

The second method employed to check the existence of the multicollinearity is by looking at the variance inflation factor (VIF) and tolerance value. According to Hair *et al.* (2017), the multicollinearity does not pose a problem when the value of VIF is not up to 5 and tolerance is more than 0.20. In Table 4.5, the collinearity diagnostics results are presented. The results showed that the values of the tolerance and the VIF were within the accepted range. Specifically, the tolerance values ranged from 0.766 to 0.949 and the VIF values ranged from 1.054 to 1.305. The results of both the correlation matrix and the collinearity diagnostic test provided clear evidence of non-existence of multicollinearity in the data of the current study.

Table 4.5

Tolerance and VIF for Multicollinearity Test

Independent Variables	Collinearity Statistics			
independent variables	Tolerance	VIF		
Probability of Detection	0.898	1.113		
Tax Penalty	0.945	1.058		
Tax Fairness	0.766	1.305		
Peer Influence	0.800	1.250		
Tax Rate	0.867	1.153		
Corruption Universiti Uta	0.949	1.054		
Economic Domination	0.934	1.071		
Public Spirit	0.908	1.102		

# **4.7 Non-Response Bias Test**

The present study conducted a response bias by doing the non-response bias test. This test was based on early and late respondents using a t-test. In addition, the current study employed a Levene's test for the equality of variance to check whether the variances existing between the groups differed significantly. Previous studies have provided evidence that the respondents at times vary systematically from non-respondents in different aspects, such as behaviours, personalities, motivations, perceptions, and attitudes which affect the results of the study (Malhotra *et al.*,

2007). This variance has an effect on the capacity to generalize the results of the study's sample to the population (Bryman, 2012). Also, the respondents with delayed response can be regarded as non-respondents because they responded due to a reminder and a visit. Based on this line of thought, Churchill and Brown (2004) argued that late responses clearly indicate a lack of willingness of the respondents to take part in the survey.

However, according to Armstrong and Overton (1977), late responses can be attributed to a lack of attention or obligations especially on the part of the respondents. Hence, variances in responses may be a result of a large delay in responding. In order to specifically determine the variance, the present study classified the sample into two (2) master groups comprising early respondents and late respondents. For the purpose of comparing the two (2) groups in terms of all the items of the questionnaire, the respondents who responded within a period of 30 days were categorized as early respondents, whereas those who responded after 30 days of administering the questionnaire were classified as late respondents as recommended by Vink and Boomsma (2008). Based on this classification, 143 respondents fell into an early respondents group, whereas the remaining 41 respondents were regarded as late respondents. Consequently, all the variables of the study were subjected to t-test to determine if there is an existence of bias among the groups. Regarding Levine's test, the equality of means t-test was employed to determine if there is any significant difference between the two (2) groups.

The results of the independent t-test for the two (2) groups (early and late responses) are presented in Table 4.6. The results, as indicated in the table, itemized the means and the standard deviation of the early and the late respondents for each variable of the current study. The means, which is central in the present study and the standard deviations which are also important, of each variable indicate a little difference between the groups. Also, Table 4.6 presents the Levene's Test for Equality of Variance results. The result implies that the value of equal variance significance of the 9 variables was higher than the 0.05 significance level of Levene's test for equality of variances as suggested by Pallant (2010). Thus, the conclusion from this result is that there is no significant difference between the early and the late respondents. Therefore, the present study did not violate the assumption of equal variances between the response groups.

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Table 4.6 *T-test for Non-Response Bias* 

Variables	Response Group		Mean	Std. Deviation	Levene's Test for Equality of Variance	
					F	Sig.
Tax Evasion	Early	143	3.865	0.387	2.010	0.157
	Late	41	3.648	0.490	2.019	0.157
Probability of Detection	Early	143	2.492	1.062	0.200	0.455
	Late	41	2.956	1.085	0.200	0.655
Tax Penalty	Early	143	2.874	1.157		_
	Late	41	2.908	1.145	0.212	0.646
Tax Fairness	Early	143	2.688	0.940	3.678	
	Late	41	2.742	1.099		0.057
Peer Influence	Early	143	2.787	0.859	2.164 (	
	Late	41	3.079	1.153		0.161
Tax Rate	Early	143	3.253	1.108	<b>A</b> L.	
	Late	41	3.430	0.992	1.062	0.304
Corruption	Early	143	2.983	0.803	0.138	
	Late	41	3.373	0.846		0.711
<b>Economic Domination</b>	Early	143	3.211	1.079	reio	
	Late	41	3.693	0.798	1.095	0.298
Public Spirit	Early	143	3.376	1.045	3.295	0.062
	Late	41	3.412	0.821	3.273	0.002

# **4.8 Common Method Variance Test**

The common method variance has to do with the variance associated exclusively to the procedure of measurement against the actual variables that the measurements represent (Podsakoff, MacKenzie, Lee & Podsakoff, 2003). Once the data with respect to the independent and dependent variables were obtained at the same time using the same instrument, there is a tendency of the common methods bias to distort the data collected. As a result, it is essential to evaluate the possible problem of the

common method bias in the behavioural studies (Meade, Watson & Kroustalis, 2007). As stated by Podsakoff *et al.* (2003), the standard parameter for the common methods bias is that a single factor in the study should not explain higher than 50% of the total variance. Thus, the current study checked the existence of the common method bias with the aid of un-rotated factors with a view to avoid a high variance problem in observed scores and inflated correlations.

In line with the suggested threshold by Podsakoff *et al.* (2003), the current study treated the common method bias through unrotated factor analysis. Arising from the 53 items employed in assessing the variables of the present study, it is revealed through the results that a single factor did not account for more than 50% of the variance. Arising from the 9 factors in the results, 25.004% was the maximum percentage variance explained by a single factor as shown in Appendix G. Hence, this result shows no common method bias in the data of the current study.

# 4.9 Demographic Statistics of the Respondents

As depicted in Table 4.7 below, this section presents the demographic information of the respondents and the enterprises to which they belong, including years of operation, the business activity, number of employees, the annual business, the business capital, the position of the respondents in their respected enterprises, type of ownership and tax return information.

Table 4.7

Descriptive Analysis of Demographic Data (n=184)

Demography	Indicators	Frequency	Percentage
Years of Operations	Less than 5 Years	18	9.8
	5 - 10 Years	26	14.1
	11 - 15 Years	51	27.7
	16 and above	89	48.4
	Total	184	100
Business Activity	Trade	91	49.5
	Services	65	35.3
	Industry	25	13.6
	Construction	3	1.6
	Total	184	100
Employees	1 – 4 Employees	152	82.6
	5 – 9 Employees	23	12.5
	10 – 19 Employees	9	4.9
	Total	184	100
Annual Business Turnover	Up to USD 20,000	150	81.5
	USD 20,001 - 200,000	25	13.6
	USD 200,001 - 500,000	9	4.9
	Total	184	100
Capital	Up to USD 5,000	153	83.2
The state of the s	USD 5,001 - 50,000	18	9.7
On and the other	USD 50,001 - 100,000	Mal <sub>13</sub> /sia	7.1
	Total	184	100
Position of Respondents	Owner	18	9.8
	Manager	9	4.9
	Owner-Manager	148	80.4
	Others	9	4.9
	Total	184	100
Ownership	Sole Proprietorship	157	85.3
	Partnership	23	12.5
	Limited Partnership	4	2.2
	Total	184	100
Submitted Tax Return (2017)	Yes	157	85.3
	No	27	14.7
	Total	184	100

Note: USD 1 equivalent to NIS 3.63

Table 4.7 shows years of operations of the respondents' enterprises. Out of 184 enterprises, only 18 enterprises have been operating since less than five (5) years, whereas 26 enterprises have been operating between 5-10 years, and 51 enterprises have been operating between 11-15 years. In addition, 89 enterprises have been operating for more than 16 years. Regarding the main business activity to which the respondents' enterprises belong, 91 enterprises among the 184 respondents' enterprises adopted for analysis belong to trade. 65 enterprises belong to services, 25 enterprises belong to industry, and the other three (3) enterprises belong to construction.

The number of employees engaged in each SME has been classified to represent the size of SMEs. This parameter is regarded as one of the major yardsticks for classifying SMEs in Palestine (Palestinian Council of Ministers, 2011). As showed in Table 4.7 above, a total number of 152 enterprises (micro-sized) engage 1-4 employees, and 23 enterprises (small-sized) engage employees ranging from five (5) to nine (9) in number. The remaining nine (9) of 184 enterprises (medium-sized) involve 10-19 employees.

The annual business turnover is another important determinant of SME size in the Palestinian context (Palestinian Council of Ministers, 2011). About 150 of the respondents had less than USD 20,000 as their annual turnover. 25 respondents of the enterprises amounting to 13.6% of the SMEs surveyed had the annual turnover ranging from USD 20,001 to USD 200,000. Lastly, nine (9) enterprises had an annual turnover ranging from USD 200,001 to USD 500,000.

The amount of the enterprises' capital is presented in Table 4.7 above. The majority, 153 respondents of the enterprises, have a capital amount up to USD 5,000. A total number of 18 of the 184 enterprises has a capital amount of USD 5,001 - USD 50,000. 13 enterprises have a capital amount between USD 50,001 and USD 100,000. In addition, Table 4.7 indicates that 18 respondents out of 184 respondents are owners in their respected enterprises, whereas nine (9) respondents are managers. In addition, 148 respondents are both owners-managers, whereas the remaining nine (9) respondents represent the others such as administrator officers of accountants. It is worth mentioning that during the time of data collection, the availability of the respondents was either the SMEs owners-managers, but the majority of the respondents were owners who are at the same time the managers of the SMEs.

The enterprises selected for the study have different forms of ownership structure. For example, 157 enterprises are owned by sole proprietors, 23 enterprises are owned by a partnership, and a total of four (4) enterprises are limited partnership.

Regarding the submission of a tax return by the enterprises, the results in Table 4.7 indicate that 157 SMEs have submitted their tax return (133 sole proprietorships, 20 partnerships, 4 and limited partnerships), whereas only 27 SMEs have not submitted their tax return (24 sole proprietorships, and 3 partnerships). In sum, it can be fathomed from the above exposition that the respondents varied substantially in terms of their backgrounds, and this implies that the data used in the study were from the respondents of diverse demographic backgrounds.

## 4.10 Descriptive Analysis of the Variables of the Study

In this section of the chapter, descriptive statistics for the variables of the current study are provided in the form of means and standard deviations. Boone and Boone (2012) recommended mean and standard deviations for descriptive statistics of the interval scale items because Likert scale items are based on composite score or mean. All the variables of the present study were measured with a 5-point Likert scale in which 1 represents strongly disagree, 2: disagree, 3: neutral, 4: agree and 5: strongly agree. Table 4.8 presents the results of the descriptive statistics of the variables of the current study. The mean scores ranged from 2.595 to 3.817 for all the variables, whereas the score of the standard deviation ranged from 0.421 to 1.151.

Table 4.8

Descriptive Statistics of the Variables of the Study

Variables	No. of Items	Mean	Std. Deviation
Tax Evasion	15	3.817	0.421
Probability of Detection	3	2.595	1.082
Tax Penalty	4	2.882	1.151
Tax Fairness	7	2.700	0.975
Peer Influence	6	2.852	0.937
Tax Rate	3	3.293	1.083
Corruption	6	3.070	0.827
Economic Domination	3	3.318	1.040
Public Spirit	6	3.384	0.997

The descriptive statistics shown in Table 4.8 represent the opinion of the respondents about the current study's variables based on the scores of the respective mean and standard deviation. Specifically, the tax evasion, which is the dependent variable of the current study, had a mean score of 3.817 and a standard deviation score of 0.421. This indicates that many respondents believe in the perpetration of tax evasion through the conduct of underreporting income and overstating income. The respondents expressed their views about the independent variables of the study. The mean and standard deviations scores of the first independent variable, probability of

detection were 2.595 and 1.082, respectively. These results indicate that the perception of the respondents towards the probability of detection is low and the rate of detection of any discrepancies in their tax returns is low. Regarding the tax penalty, the descriptive statistics revealed the scores of 2.882 and 1.151 for mean and standard deviation, respectively. This shows that paying a tax penalty had no vital influence on the respondents' businesses.

For fairness perception, Table 4.8 specifically shows a mean score of 2.700 and standard deviation score of 0.975. The opinion of the respondents in this context is that the current tax system is unfair. In addition, the perception of the respondents with respect to the peer influence produced a mean score of 2.852 and a standard deviation score of 0.937. This output symbolizes that a greater number of the respondents opined that other peers do not pay income tax. Regarding the respondents' perception towards the tax rate, the results revealed a mean score of 3.293, whereas the standard deviation was 1.083. This implies that the majority of the respondents considered that the tax rates should be progressive among the Palestinian taxpayers to be fair.

Concerning the opinion of the respondents towards the corruption, the mean and standard deviation scores, as specified in Table 4.8, are 3.070 and 0.827, respectively. The high scores indicate that the majority of the respondents perceived the presence of corruption in their dealings and relationships with the tax authority. Regarding economic domination, Table 4.8 reveals a mean score of 3.318, whereas the standard deviation is 1.040. This shows that important consideration is given to the economic domination towards the tax evasion by most of the respondents. For

the public spirit, the result, as revealed in Table 4.8, indicates a mean of 3.384 and a standard deviation of 0.997. This shows that many respondents had a high public spirit.

#### 4.11 Assessment of the Measurement Model

By using the Smart PLS, the measurement model was examined, and it involved the determination of individual item reliability, internal consistency reliability, convergent validity, and discriminant validity (Henseler *et al.*, 2009; Hair *et al.*, 2017). In other words, the measurement model assessed the ability of the items in the model to measure the various variables. Explicit explanations of the model are presented in the next sections.

## 4.11.1 Reliability of Individual Item

The current study assesses the reliability of the individual indicators of the variables based on their respective outer loadings and the standard threshold value of 0.50 and above (Hulland, 1999). As recommended by Hair *et al.* (2017), the outer loadings within the range of 0.40 and 0.70 were carefully considered for deletion if their presence would make the value of the CR and AVE increase. Seven (7) out of the total 53 items in the current study were deleted including TE7, TE10, TE15, TF7, PI6, CO6, and PS2. Consequently, 46 items were retained for further analyses because they have outer loadings ranging from 0.614 to 0.914. In Table 4.9 below, the items and their respective outer loadings are presented.

Table 4.9 *Outer Loadings* 

Variables	Items	Loading		Loadings of Deleted Items
Tax Evasion	TE1	0.725	TE7	0.229
	TE2	0.733	TE10	0.254
	TE3	0.738	TE15	0.233
	TE4	0.748		
	TE5	0.718		
	TE6	0.655		
	TE8	0.702		
	TE9	0.687		
	TE11	0.679		
	TE12	0.717		
	TE13	0.708		
	TE14	0.673		
Probability of Detection	POD1	0.894	-	-
	POD2	0.814		
	POD3	0.914		
Tax Penalty	TP1	0.911	-	-
	TP2	0.879		
	TP3	0.890		
	TP4	0.892		
Tax Fairness	TF1	0.836	TF7	0.100
	TF2	0.888		
	TF3	0.780		
Un	TF4	0.859	Malaysi	
BUIN W	TF5	0.844	, , ,	
	TF6	0.833		
Peer Influence	PI1	0.739	PI6	0.324
	PI2	0.836		
	PI3	0.772		
	PI4	0.869		
	PI5	0.751		
Tax Rate	TR1	0.821	-	-
	TR2	0.788		
	TR3	0.817		
Corruption	CO1	0.682	CO6	0.601
	CO2	0.673		
	CO3	0.614		
	CO4	0.832		
	CO5	0.744		

(Table 4.9 continued)

Variables	Items	Loading	Deleted Items	Loadings of Deleted Items
<b>Economic Domination</b>	ED1	0.812	-	-
	ED2	0.847		
	ED3	0.829		
Public Spirit	PS1	0.838	PS2	0.480
	PS3	0.906		
	PS4	0.901		
	PS5	0.841		
	PS6	0.914		

Deleting some indicators in a model is regarded as normal and common in many studies that employ the questionnaire as a tool, especially in taxation studies. For instance, Bidin and Sinnasamy (2018) deleted 31% of the total items. In addition, the present study applied the criterion recommended by Kline (2016) that at least two (2) items must be maintained. Even after the deletion of the items, all the variables in the present study still had a minimum of three (3) items for each.

# 4.11.2 Internal Consistency Reliability

To examine the internal consistency reliability, two (2) components comprising Composite Reliability (CR) and Cronbach's Alpha (CA) are the most common indicators for testing the internal consistency reliability (Peterson & Kim, 2013). These two (2) components were applied in the current study. CA is a traditional standard normally applied for the assessment of the internal consistency reliability. It evaluates the reliability of the variables according to the inter correlations of the items (Hair *et al.*, 2017). The assumption of CA, according to Hair *et al.* (2017) and Henseler *et al.* (2009), is that each indicator has equal loadings, and is equally reliable on the latent variable without taking into consideration the reliability of the individual indicators.

However, due to the shortcoming of the CA, the present study employed CR as a better alternative measurement of the consistency reliability (Hair *et al.*, 2017). CA, as mentioned earlier, assumes that all the items are equally reliable (i.e., all the indicators have equal outer loadings on the variable). In PLS-SEM, indicators are prioritized in accordance with their individual reliability. Also, Cronbach's alpha is very reactive to the indicators' number in the scale. Consequently, underestimation of the internal consistency reliability is generally possible. In other words, CA is a conservative measurement of internal consistency reliability. Because of the limitations of Cronbach's Alpha in the population, applying the Composite Reliability (CR) as a different measurement of the internal consistency reliability is more appropriate since. CR takes into consideration that the indicators have different outer loadings (Hair *et al.*, 2017).

The values of both CA and CR should not be less than 0.70 (Henseler *et al.*, 2009; Hair *et al.*, 2017). The values of CR within the range of 0.60 to 0. 70 are acceptable, whereas the values exceeding 0.95 are not desirable due to the fact that all the items are assessing the same issue, and consequently are not an effective measurement of the variable (Hair *et al.*, 2017). Table 4.10 shows the values of CR and CA for all variables. As indicated in Table 4.10, the values of the CA of the variables ranged from 0.735 to 0.931. On the other hand, the values of CR of the variables ranged from 0.836 to 0.945. Consequently, the variables in the current study derive and contain values that are greater than the threshold reliability level, which should be more than 0.70 and less than 0.95 as mentioned above. In such case, it can be concluded that the internal consistency reliability of the measurements was confirmed and verified.

Table 4.10 *Composite Reliability Values* 

Variables	Cronbach's Alpha (CA)	Composite Reliability (CR)
Tax Evasion	0.910	0.923
Probability of Detection	0.847	0.908
Tax Penalty	0.916	0.940
Tax Fairness	0.918	0.935
Peer Influence	0.855	0.895
Tax Rate	0.735	0.850
Corruption	0.778	0.836
<b>Economic Domination</b>	0.777	0.869
Public Spirit	0.931	0.945

## 4.11.3 Convergent Validity

The present study evaluated the convergent validity through Average Variance Extracted (AVE) with a standard threshold of 0.50 (Henseler *et al.*, 2009). According to Hair *et al.* (2017), if the AVE has a value of 0.50, it implies that the variables have 50% of the variance in their items, and this is regarded as adequate. The convergent validity's result of the current study is shown in Table 4.11. The values of AVE ranged between 0.501 and 0.798. Hence, the values of AVE for all the variables of the current study are far beyond the minimum recommended value of 0.50. Therefore, the results showed the confirmation of sufficient convergent validity among the indicators of the present study.

Table 4.11

Average Variance Extracted Values

Variables	AVE
Tax Evasion	0.501
Probability of Detection	0.766
Tax Penalty	0.798
Tax Fairness	0.706
Peer Influence	0.632
Tax Rate	0.654
Corruption	0.508
Economic Domination	0.688
Public Spirit	0.776

#### **4.11.4 Discriminant Validity**

Discriminant validity can be explained as the degree to which a particular latent variable distinguishes itself from others in a research model (Duarte & Raposo, 2010). As suggested by Fornell and Larcker (1981), the current study evaluated the discriminant validity through AVE. Having done a comparison between the correlations of the variables alongside AVE square roots, the present study arrived at the discriminant validity. The AVE square roots values of each variable were greater than their highest correlation with any other variables in the model (Henseler *et al.*, 2009; Hair *et al.*, 2017). The results of the variables' correlations and the square root of AVE values are presented in Table 4.12 below. In comparison with the correlations, the AVE square roots were more than the correlations of any other variables.

In Table 4.12, some values have negative signs which imply a reverse relationship between the exogenous variables and the endogenous variable. For example, probability of detection is negatively associated with the dependent variable, whereas, tax rate is positively associated with the dependent variable. Thus, it is implied that the discriminant validity level required for the variables of the current study has been actually attained.

Table 4.12 Discriminant Validity Analysis Using Fornell and Larcker's Criterion

Variables	TE	POD	TP	TF	PI	TR	CO	ED	PS
Tax Evasion (TE)	.707								
Probability of Detection (POD)	287	.875							
Tax Penalty (TP)	219	.105	.893						
Tax Fairness (TF)	280	.207	.067	.840					
Peer Influence (PI)	306	.244	.158	.369	.795				
Tax Rate (TR)	.317	180	156	288	138	.809			
Corruption (CO)	.101	052	027	105	051	.105	.713		
Economic Domination (ED)	.225	120	063	033	.033	.098	.133	.829	
Public Spirit (PS)	.134	068	047	225	.014	.134	031	.115	.881

The assessment of the discriminant validity can be also made by comparing the indicator's loading with its cross-loadings (Chin, 1998). Having achieved the discriminant validity using Fornell and Larcker's (1981) criterion, the current study followed the approach recommended by Chin (1998). Hence, the indicator's loadings were compared with their cross-loadings. The results of this exercise are presented in Table 4.13 below.

Table 4.13
Discriminant Validity Assessment Using Indicators Loadings and Cross Loadings

Discrimin									
Items	TE	POD	TP	TF	PI	TR	CO	ED	PS
TE1	0.725	-0.246	-0.162	-0.227	-0.268	0.170	0.112	0.129	0.103
TE2	0.733	-0.219	-0.193	-0.081	-0.164	0.117	0.092	0.115	-0.032
TE3	0.738	-0.349	-0.171	-0.242	-0.302	0.303	0.133	0.186	0.025
TE4	0.748	-0.254	-0.143	-0.197	-0.210	0.235	0.105	0.140	0.152
TE5	0.718	-0.084	-0.186	-0.180	-0.274	0.237	0.165	0.142	0.187
TE6	0.655	-0.185	-0.151	-0.214	-0.263	0.136	0.058	0.026	0.059
TE8	0.702	-0.173	-0.149	-0.182	-0.140	0.287	0.042	0.046	0.080
TE9	0.687	-0.251	-0.233	-0.254	-0.188	0.305	0.071	0.226	0.083
TE11	0.679	-0.176	-0.120	-0.224	-0.211	0.193	-0.078	0.195	0.126
TE12	0.717	-0.142	-0.073	-0.223	-0.214	0.250	-0.010	0.250	0.130
TE13	0.708	-0.133	-0.066	-0.169	-0.126	0.212	0.082	0.180	0.118
TE14	0.673	-0.144	-0.182	-0.108	-0.178	0.157	0.052	0.207	0.087
POD1	-0.258	0.894	0.124	0.160	0.206	-0.128	-0.053	-0.111	-0.007
POD2	-0.271	0.814	0.119	0.214	0.200	-0.203	-0.032	-0.090	-0.143
POD3	-0.215	0.914	0.018	0.162	0.236	-0.133	-0.053	-0.115	-0.014
TP1	-0.217	0.098	0.911		0.156	-0.186	0.007	-0.035	-0.113
TP2	-0.186	0.076	0.879	0.061	0.184	-0.081	-0.017	0.000	0.036
TP3	-0.186	0.111	0.890	0.103	0.106	-0.156	-0.019	-0.071	-0.010
TP4	-0.190	0.089	0.892	-0.001	0.118	-0.126	-0.074	-0.122	-0.071
TF1	-0.254	0.190	0.089	0.836	0.269	-0.246	-0.091	-0.018	-0.145
TF2	-0.199	0.176	-0.020	0.888	0.329	-0.171	-0.056	0.011	-0.179
TF3	-0.284	0.164	0.121	0.780	0.347	-0.283	-0.074	-0.129	-0.302
TF4	-0.262	0.173	0.043	0.859	0.324	-0.242	-0.152	-0.010	-0.177
TF5	-0.145	0.177	0.023	0.844	0.326	-0.225	-0.175	-0.004	-0.108
TF6	-0.203	0.156	0.041	0.833	0.251	-0.258	0.010	0.026	-0.164
PI1	-0.188	0.282	0.137	0.240	0.739	-0.095	-0.103	0.075	-0.024
PI2	-0.264	0.194	0.162	0.329	0.836	-0.178	-0.025	-0.023	0.031
PI3	-0.210	0.220	0.110	0.305	0.772	-0.119	-0.071	0.120	-0.030
PI4	-0.281	0.112	0.114	0.347	0.869	-0.146	-0.018	0.048	0.029
PI5	-0.255	0.202	0.109	0.234	0.751	-0.004	-0.011	-0.060	0.032
TR1	0.265	-0.112	-0.186	-0.237	-0.088	0.821	0.058	0.069	0.120
TR2	0.258	-0.173	-0.114	-0.277	-0.142	0.788	0.078	0.126	-0.005
TR3	0.246	-0.152	-0.073	-0.183	-0.104	0.817	0.122	0.041	0.215
CO1	0.069	-0.032	-0.064	-0.046	-0.010	0.126	0.682	0.086	-0.062
CO2	0.049	-0.052	-0.004	-0.053	-0.092	0.087	0.673	0.054	-0.022
CO3	0.020	0.016	0.021	0.013	-0.010	0.070	0.614	0.175	-0.125
CO4	0.111	-0.021	0.002	-0.103	-0.029	0.031	0.832	0.131	-0.026
CO5	0.052	-0.094	-0.040	-0.126	-0.055	0.111	0.744	0.059	0.073
ED1	0.156	-0.164	-0.035	-0.014	0.060	0.178	0.195	0.812	0.115
ED2	0.176	-0.037	-0.118	-0.018	-0.009	0.042	0.082	0.847	0.128
ED3	0.217	-0.105	-0.011	-0.044	0.033	0.044	0.072	0.829	0.055
PS1	0.097	-0.051	-0.061	-0.207	0.027	0.176	-0.053	0.108	0.838
PS3	0.043	-0.013	-0.067	-0.220	0.016	0.144	0.024	0.101	0.906
PS4	0.134	-0.034	-0.060	-0.177	0.046	0.088	0.021	0.150	0.901
PS5	0.066	-0.051	-0.016	-0.196	-0.027	0.134	-0.041	0.050	0.841
PS6	0.160	-0.103	-0.019	-0.208	-0.009	0.096	-0.060	0.079	0.914

It can be deduced, based on Table 4.13, that the indicators' loadings of each of the nine (9) variables are higher than their cross-loadings, thereby satisfying the discriminant validity criterion suggested by Chin (1998).

Summarily, the present study evaluated the measurement model, known as the outer model, through many tests, comprising the indicator's reliability, the internal consistency test, the convergent validity, and the discriminant validity. The main purpose for conducting all these tests was to ensure that the measurement model was valid and reliable before proceeding further to test the hypotheses.

#### 4.12 Assessment of the Structural Model

Considering the fact that the reliability and validity of the measures were achieved through the evaluation of the measurement model, the current study continued the statistical analysis by evaluating the structural model. As mentioned earlier, the structural model evaluation deals with four (4) main assessments comprising 1) assessment of the significance of path coefficients ( $\beta$ ) through bootstrapping procedures (involving the direct relationships and moderating relationship in the current study), 2) assessment of the level of R-squared value, 3) assessment of the effect-size ( $f^2$ ), and 4) assessment of the predictive relevance.

### **4.12.1** Hypotheses Testing of Direct Relationships

The structural model assessment examined the direct association related to the first objective of the current study. These comprise (H<sub>1</sub>, H<sub>3</sub>, H<sub>5</sub>, H<sub>7</sub>, H<sub>9</sub>, H<sub>11</sub>, and H<sub>13</sub>) based on the bootstrapping procedure of PLS-SEM. In order to gain convergence, bootstrapping is done when there is a sample of 5,000 (Hair *et al.*, 2017) to guarantee further statistical stability and eliminate the concerns of estimates

inaccuracies, and to check that path coefficient ( $\beta$ ) is significant, 184 cases are assessed using one-tailed test. The diagrammatical result of the structural model for the direct relationships is depicted in Figure 4.1. The model displays the latent variables denoted by the circular shapes, whereas their items or indicators are represented by the rectangles.

The entire latent variables of the current study are reflective in nature. Reflective variables are normally identified by their indicators' direction as demonstrated by the arrows from the indicators to the variables. The values on the path lines linking the exogenous variable and the endogenous variable represent the t-value (significance level) of the relationships in the structural model. The full explanations of this are followed in the next sub-sections.

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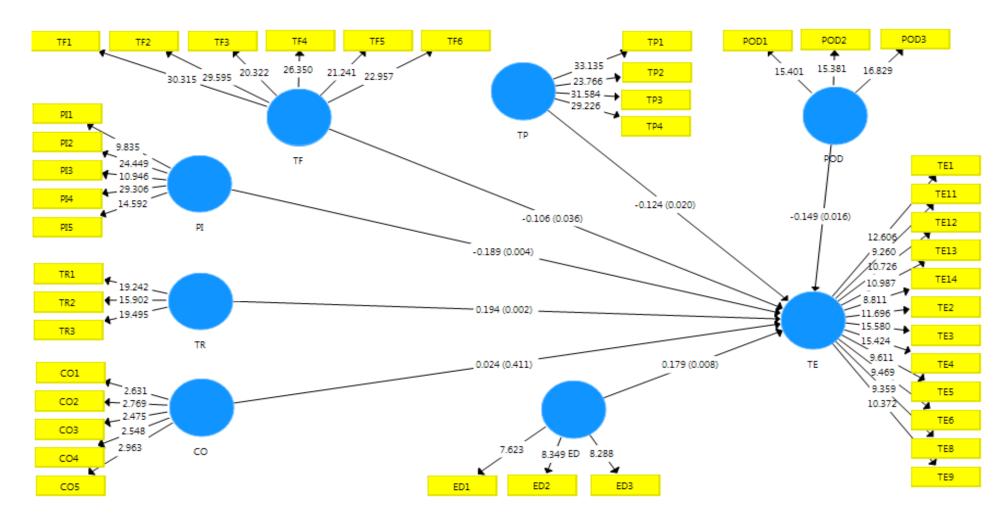


Figure 4.1
Structural Model (Direct Relationship)

The bootstrapping procedure through PLS provides the statistical output on the effect of the independent and endogenous variables. In Table 4.14, the PLS output in relation to the paths associated with the direct relationships hypotheses of the current study is presented. In the subsequent section, the results of the significant path were only explained. The results show the path coefficient, the directions of the relationship, and their level of significance. A total number of six (6) hypotheses (H<sub>1</sub>, H<sub>3</sub>, H<sub>5</sub>, H<sub>7</sub>, H<sub>9</sub>, and H<sub>13</sub>) of the direct relationship was statistically found significant.

Table 4.14

Results of Hypotheses Testing (Direct Relationships)

J 71	0 (	1 /		
<b>Hypothesis: Path</b>	<b>Path Coefficient</b>	<b>T-Statistics</b>	P-Value	Decision
H <sub>1</sub> : POD->TE	-0.149	2.160	0.016*	Supported
H <sub>3</sub> : TP ->TE	-0.124	2.068	0.020*	Supported
H <sub>5</sub> : TF ->TE	-0.106	1.797	0.036*	Supported
H <sub>7</sub> : PI ->TE	-0.189	2.632	0.004**	Supported
H <sub>9</sub> : TR ->TE	0.194	2.917	0.002**	Supported
H <sub>11</sub> : CO ->TE	0.024	0.224	0.411	Not Supported
H <sub>13</sub> : ED ->TE	0.179	2.420	0.008**	Supported

Note: Significant at \*\*p < 0.01, \*p < 0.05. All hypotheses are based on 1-tail.

Based on the findings presented in Table 4.14 and Figure 4.1, the results of the relationships between the exogenous variables and the endogenous variable were as follows:

Specifically, the results of the bootstrapping show that the first hypothesis one ( $H_1$ ) is supported because the probability of detection has a negative and significant relationship on tax evasion ( $\beta$  = -0.149; t = 2.160; p = 0.016). Similarly, hypothesis three (3) ( $H_3$ ) is also supported because the statistical results show a negative and significant relationship of tax penalty on tax evasion ( $\beta$  = -0.124; t = 2.068; p = 0.020). The hypothesis five (5) ( $H_5$ ) is supported considering the negative and

significant relationship of tax fairness on tax evasion ( $\beta$  = -0.106; t = 1.797; p =0.036). In addition, considering the results of path coefficient and the t-value, hypothesis seven (7) (H<sub>7</sub>) of the present study is supported with a negative and significant relationship between peer influence and tax evasion ( $\beta$  = -0.189; t = 2.632; p = 0.004) as hypothesised earlier. Hypothesis nine (9) (H<sub>9</sub>) is also supported because it has a positive and significant relationship of tax rate on tax evasion ( $\beta$  = 0.194; t = 2.917; p = 0.002). The result related to hypothesis 13 (H<sub>13</sub>) indicates a positive and significant relationship between economic domination and tax evasion ( $\beta$  = -0.179; t = 2.420; p = 0.008). Therefore, H<sub>13</sub> is supported.

## **4.12.2** Moderation Relationship Hypotheses Test

The current study also included the moderating variable in the model of the study with a view to enhance the understanding of the complex behaviour of tax evasion. That is, the introduction of the moderation is necessary when there is an effect of an exogenous variable on an endogenous variable, thus relying on the third variable known as the moderator, which reacts with the exogenous variable in order to interpret and explain the endogenous variable (Baron & Kenny, 1986; Edwards & Lambert, 2007). More specifically, the public spirit is expected to interact with the determinants of tax evasion behaviour and reduce evade. Thus, the current study aimed at detecting and estimating the strength of the moderating effect of the public spirit on the relationship between probability of detection, tax penalty, tax fairness, peer influence, tax rate, corruption, and tax evasion among the SMEs taxpayers.

The assessment of the moderating model is achieved by (i) evaluating the direct effect of the exogenous variable on the endogenous variable; (ii) evaluating the effect of the independent variable alongside the moderating variable by including the interaction term (Hair *et al.*, 2017). The influence of the moderating effect is measured by the interaction term significance.

Objective two (2) of the current study, which contains H<sub>2</sub>, H<sub>4</sub>, H<sub>6</sub>, H<sub>8</sub>, H<sub>10</sub> and H<sub>12</sub>, covers the moderated relationships. The assessment of the moderated relationship between the variables is based on the PLS-SEM measurement and the structural models since the directional relationships were hypothesised between the public spirit and the specified associations. The present study tested the relationship as a one-tailed hypothesis. The diagrammatical presentation in Figure 4.2 shows the structural model of the moderated relationships between the variables. As recommended by Baron and Kenny (1986), Hayes (2013), and Hair *et al.* (2017), the model of the moderation consists of the direct relationships indicating the flow from the exogenous variable to the endogenous variables to the endogenous variables to the endogenous variables to the endogenous variable through the moderating variable.

Regarding the aspect of the indirect relationship, two (2) paths are identifiable (Baron & Kenny, 1986; Hayes, 2013; Hair *et al.*, 2017). The first path is known as 'path a' is the route from the exogenous variable to the moderating variable. The second path is known as 'path b' is the route from the moderator to the endogenous variable. Thus, the influences of the moderation effects are obtained through the multiplication of the influence of the exogenous variables and the moderator on the endogenous variable; it is known as the interaction effect. According to Chin *et al.* (2003), the interaction of the variables comprising the exogenous variable and the moderator is indicated by the product of their indicators. The moderating effect is, therefore, achieved if the interaction terms are significant (Hair *et al.*, 2017).

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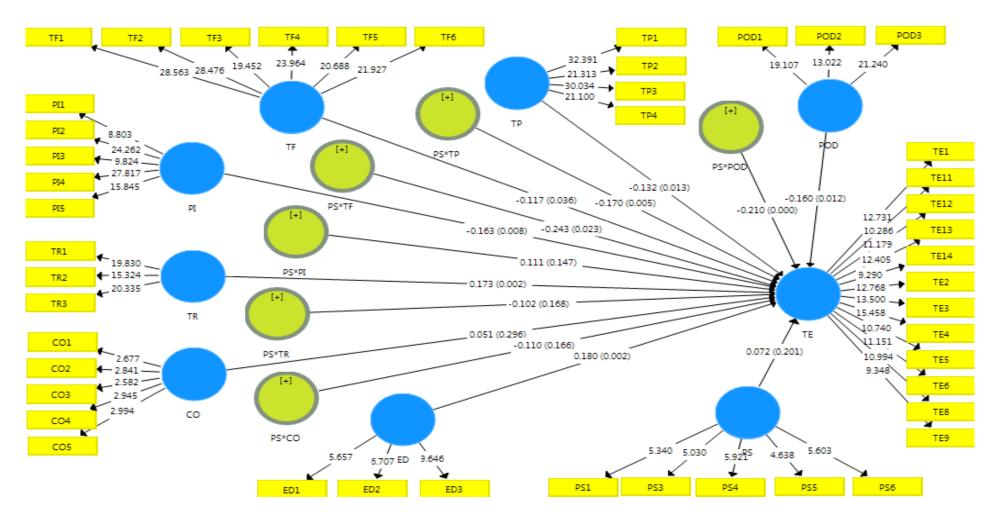


Figure 4.2
Structural Model (Indirect Hypotheses)

Table 4.15 shows the details related to the moderating effects and the hypotheses testing results. The results show that the three (3) hypothesised moderated relationships were found to be significant.

Table 4.15

Results of Hypotheses Testing (Moderating Effect)

Hypothesis: Path	Path Coefficient	<b>T-Statistics</b>	P-Value	Decision
H <sub>2</sub> : PS*POD->TE	-0.210	3.648	0.000**	Supported
H <sub>4</sub> : PS*TP ->TE	-0.170	2.610	0.005**	Supported
H <sub>6</sub> : PS*TF ->TE	-0.243	1.998	0.023*	Supported
H <sub>8</sub> : PS*PI ->TE	0.111	1.051	0.147	Not Supported
$H_{10}$ : PS*TR ->TE	-0.102	0.961	0.168	Not Supported
H <sub>12</sub> : PS*CO ->TE	-0.110	0.972	0.166	Not Supported

Note: Significant at \*\*p < 0.01, \*p < 0.05, (one-tailed test).

Hypothesis two (2) ( $H_2$ ) predicted that the public spirit would moderate the relationship between probability of detection and tax evasion. The study result (see Table 4.15) showed support for  $H_2$  ( $\beta$  = -0.210, t = 3.648, p = 0.000). This implies that the public spirit had a moderating effect, indicating that a high level of public spirit strengthens the negative relationship between probability of detection and tax evasion (tax evasion becomes weaker). Figure 4.3 indicates that the interaction pattern is in alignment with  $H_2$ . That is, the probability of detection is more effective on tax evasion when the public spirit is high.

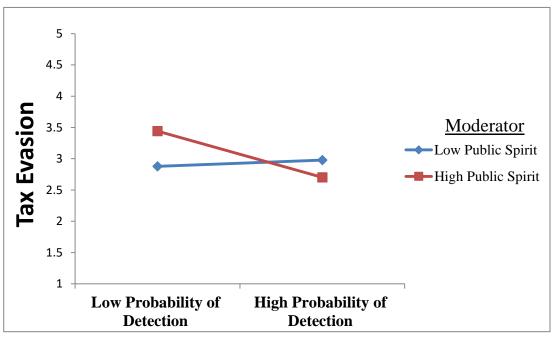


Figure 4.3

The Interaction Effect between Public Spirit and Probability of Detection

Hypothesis four (4) (H<sub>4</sub>) predicted that the public spirit would moderate the relationship between tax penalty and tax evasion. The result of the study as reported in Table 4.15, suggested that the relationship between the public spirit and the tax penalty was negative ( $\beta$  = -0.170, t = 2.610, p = 0.005). Hence, a high level of public spirit amplifies the negative association between tax penalty and tax evasion of the SMEs. Thus, the public spirit has a negative moderating effect on the relationship between tax penalty and tax evasion, whereby a high level of public spirit strengthens the negative relationship between tax penalty and tax evasion. Figure 4.4 suggests that the interaction pattern aligns with H<sub>4</sub>. That is, tax penalty is more effective on tax evasion when the public spirit is high. Therefore, H<sub>4</sub> was supported.

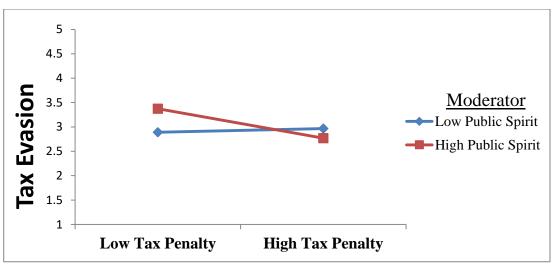


Figure 4.4

The Interaction Effect between Public Spirit and Tax Penalty

Hypothesis six (6) (H<sub>6</sub>) posited that the public spirit would moderate the relationship between tax fairness and tax evasion. The result of the study (see Table 4.15) provided support for H<sub>6</sub> ( $\beta$  = -0.243, t = 1.998, p = 0.023), whereby the interaction was negative between the public spirit and tax fairness, thus indicating that a high level of public spirit strengthens the negative relationship between tax fairness and tax evasion. Figure 4.5 points out that the interaction pattern is consistent with H<sub>6</sub>. That is, tax fairness is more effective on tax evasion when the public spirit is high.

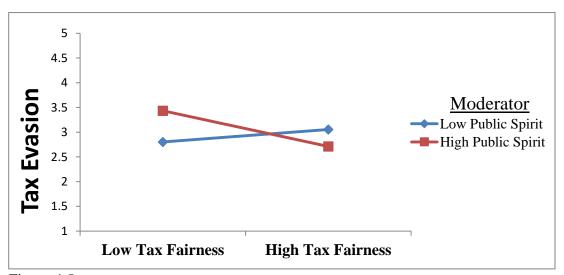


Figure 4.5

The Interaction Effect between Public Spirit and Tax Fairness

Hypothesis eight (8) (H<sub>8</sub>) predicted that the public spirit would moderate the relationship between peer influence and tax evasion. As shown in Table 4.15, the finding presented that the interaction between public spirit and peer influence is insignificant and weak ( $\beta = 0.111$ , t = 1.051, p = 0.147). This indicates that the public spirit had no moderating effect on the relationship between peer influence and tax evasion. Thus, the hypothesis was not supported.

Hypothesis 10 ( $H_{10}$ ) posited that the public spirit would moderate the relationship between tax rate and tax evasion. The result of the study (see Table 4.15) provided no support for  $H_{10}$  ( $\beta$  = -0.102, t = 0.961, p = 0.168). This indicates that the public spirit had no moderating effect.

Hypothesis 12 ( $H_{12}$ ) predicted that the public spirit would moderate the relationship between corruption and tax evasion. The result of the study as reported in Table 4.15 suggests that the interaction between the public spirit and tax evasion is insignificant ( $\beta = -0.110$ , t = 0.972, p = 0.166). Thus, the public spirit had no moderating effect on the role of corruption on tax evasion. Consequently,  $H_{12}$  was rejected.

## 4.12.3 Assessment of the Level of R-square

The R<sup>2</sup> value, known as the coefficient of determination, is one of the key measurements in the structural model assessment employed in the current study (Henseler *et al.*, 2009; Hair *et al.*, 2017). R<sup>2</sup> shows that the model fit for a quantitative endogenous variable, and it measures the extent to which the exogenous variables collectively relate to the endogenous variable (Menard, 2012). R<sup>2</sup> measures the extent to which the regression line perfectly fits the real data points and provides evidence for the goodness of fit of a particular model. Hence, the higher the R<sup>2</sup> is.

the better the goodness of fit is for the data. R<sup>2</sup> is generally computed as the total variance less unexplained variance.

Consequently, many parameters are suggested in evaluating the values of R<sup>2</sup>. Based on the recommendation of Cohen (1988), R<sup>2</sup> values of 0.02, 0.13 and 0.26 for the endogenous variable can be interpreted respectively as weak, moderate, and substantial. According to Chin (1998), R<sup>2</sup> findings of 0.67 or above, 0.33 or above, and 0.19 or above for the endogenous latent variables can be respectively regarded as substantial, moderate, and weak. Furthermore, Falk and Miller (1992) specified that R<sup>2</sup> values equal to 0.10 can be accepted as a minimum level.

Hence, the present study follows Cohen's (1988) criteria which is more commonly applied standard in assessing the values of variance explained (R<sup>2</sup>) by the exogenous variables. Thus, by applying Cohen's (1988) criteria, the endogenous variable achieved acceptable levels of R<sup>2</sup> value of 0.392, which was considered as substantial. The results of the R<sup>2</sup> of tax evasion, which is the endogenous variable, are presented in Table 4.16 and Figure 4.6.

Table 4.16 Coefficient of Determination  $(R^2)$ 

Endogenous Variable	R <sup>2</sup> Value	Size
Tax Evasion	0.392	Substantial

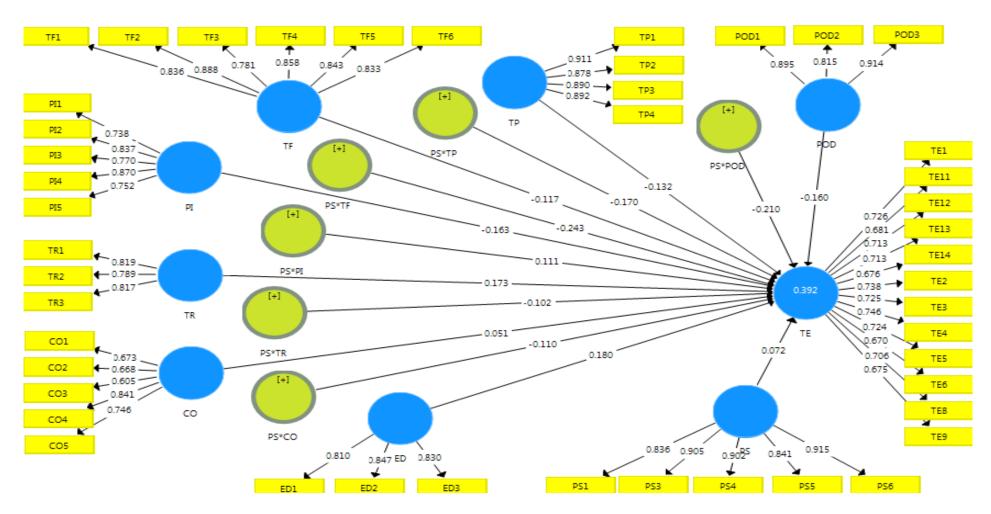


Figure 4.6 *R-square Value of the Model* 

## 4.12.4 Assessment of Effect Size of the Models of the Current Study

After assessing the combined effect of the exogenous variables on the endogenous variable, the effect size is another important criterion that evaluates the relative effect of the individual latent exogenous variable on the endogenous variable (Hair *et al.*, 2017). The effect size can be calculated as:

$$f^2 = \frac{R^2 \text{ included} - R^2 \text{ excluded}}{1 - R^2 \text{ included}}$$

R<sup>2</sup> included, as indicated above, is the R<sup>2</sup> obtained on the endogenous variable when the exogenous variable is applied in the structural model. R<sup>2</sup> excluded, on the other hand, is the R<sup>2</sup> obtained on the endogenous variable when the exogenous variable is not applied in the structural model (Hair *et al.*, 2017). According to Cohen (1988), f<sup>2</sup> values of 0.02, 0.15 and 0.35 represent small, medium, and large effects, respectively in the structural model.

The results of the effect size of the exogenous variables individually, as provided in Table 4.17, contained an effect size (f²) higher than the recommended value of 0.02. They represent the probability of detection, tax penalty, peer influence, tax rate, and economic domination. The effect of the entire variables on tax evasion is small. Nevertheless, it is at an acceptable level.

Table 4.17

Effect Size of the Exogenous Latent Variables on Endogenous Latent Variable

Variables	$f^2$	<b>Effect Size</b>
Probability of Detection	0.037	Small
Tax Penalty	0.026	Small
Tax Fairness	0.016	Very Small
Peer Influence	0.034	Small
Tax Rate	0.042	Small
Corruption	0.004	Very Small
Economic Domination	0.047	Small

## 4.12.5 The Effect Size of Public Spirit as a Moderator

In order to assess the interaction power influences of the public spirit on the relationship between probability of detection, tax penalty, tax fairness, peer influence, tax rate, and corruption with tax evasion, Chin (2010) suggests the comparison of the R<sup>2</sup> of the model with and without moderation. The R<sup>2</sup> variation is used in assessing the effect size (f<sup>2</sup>) for the moderator. Based on the ordinary convention, 0.35, 0.15 and 0.02 f<sup>2</sup> values are respectively regarded as having large, moderate, and small effects (Cohen, 1988). Thus, the interaction effect strength could be stated by applying the same earlier described formula for the model of the main effect (Cohen, 1988).

Effect Size of a Moderator = 
$$\frac{R^2 \text{Model with moderator} - R^2 \text{model without moderator}}{1 - R^2 \text{model with moderator}}$$

As shown in Table 4.18, the moderator's effect size was found to be 0.213. This implies a moderate interaction effect. Hence, the conclusion that can be drawn is that the proposed public spirit model of the current study to moderate the exogenous variables and the endogenous variable relationship has a moderate significant and explanatory strength compared to the main model.

Table 4.18

Effect Sizes of the Moderator

Variable	R <sup>2</sup> Included	R <sup>2</sup> Excluded	$f^2$	Effect Size
Public Spirit	0.392	0.262	0.213	Moderate

#### **4.12.6 Predictive Relevance of the Model**

Regarding the determination of effect size (f²) and R² values as the means of evaluating the structural model quality, the researchers using PLS modelling are required to point out the model's predictive relevance to assess the quality of the models (Hair *et al.*, 2017). Sattler, Volckner, Riediger and Ringle (2010) recommended the blindfolding processes to determine the predictive relevance (Q²) of the structure model. The procedure for blindfolding, however, is utilized only for endogenous variables having a reflective specification of measurement model (Henseler *et al.*, 2009). Therefore, the current study employed a blindfolding procedure for the endogenous variable due to the reflective nature endogenous variable of the present study.

According to Henseler *et al.* (2009) and Hair *et al.* (2017), in a situation the value cross-validated redundancy measure ( $Q^2$ ) is more than zero, the implication is that the model has a predictive relevance. Table 4.19 presents the cross-validated redundancy for the model of the current study to be greater than zero. Thus, the models provided evidence of predictive relevance. In Table 4.19, SSO shows the sum of the squared observations, SSE shows the sum of the squared prediction errors, and the last column (i.e., 1 - SSE/SSO) shows the final value  $Q^2$ .

Table 4.19 Construct Cross-Validated Redundancy  $(Q^2)$ 

Endogenous latent variable	SSO	SSE	1-SSE/SSO
Tax Evasion	2,208.000	1,846.954	0.164

#### 4.12.7 Goodness of Fit of the Model

Tenenhaus, Vinzi, Chatelin and Lauro (2005) defined the Goodness of Fit (GoF) as the global fit measure. In PLS path modelling, a global fit measure can be described as the average communality geometric mean and R<sup>2</sup> average for the endogenous variables. The goodness of fit measure major objective is to describe the variance extracted not only the measurement model but also the structural model (Chin, 2010). The computation of GoF can be achieved using the following formula:

$$GoF = \sqrt{(\overline{R^2} \times \overline{AVE})}$$

In the current study, the GoF value of the model was 0.486. This is accomplished as follows:

$$GoF = \sqrt{0.392} \times 0.603 = 0.486$$

In order to compare the value of GoF with the acceptable standard GoF values as recommended by Wetzels, Odekerken-Schroder and Van Oppen (2009), a value lower than 0.1 is an indication of no fit. The values between the ranges of 0.1-0.25 indicate small fit. Also, the values between 0.25-0.36 mean medium fit, whereas the value higher than 0.36 indicates large fit. Arising from this and the value of GoF derived in the current study, it can be concluded that the GoF model of the present study was large, thus implying a sufficient global PLS model validity.

# 4.12.8 Summary of Hypotheses' Results

Table 4.20 included a summary of the hypotheses' results of the present study. Out of 13 hypotheses, nine (9) hypotheses were supported, whereas the remaining four (4) hypotheses were not supported. This is presented as follows:

Table 4.20 *Hypotheses Summary* 

Hypotheses	Hypothesised Path	Decision	
	Direct Relationships		
$H_1$	POD->TE	Supported	
$H_3$	TP ->TE	Supported	
$H_5$	TF ->TE	Supported	
H <sub>7</sub>	PI ->TE	Supported	
H <sub>9</sub>	TR ->TE	Supported	
H <sub>11</sub>	CO ->TE	Not Supported	
H <sub>13</sub>	ED ->TE	Supported	
	<b>Moderating Effects</b>		
$H_2$	PS*POD->TE	Supported	
H <sub>4</sub>	PS*TP ->TE	Supported	
$H_6$	PS*TF ->TE	Supported	
$H_8$	Univ PS*PI 1->TE ara	Not Supported	
$H_{10}$	PS*TR ->TE	Not Supported	
$H_{12}$	PS*CO ->TE	Not Supported	

## **4.13 Chapter Summary**

This chapter was designed to empirically fulfil the research aims and answer the research questions, depending on SPSS 23 and PLS.3 for cleaning the data and hypothesis testing. In addition, this chapter presents the respondents' characteristics using a descriptive analysis of the data related to the variables. Subsequently, the PLS measurement model, known as the outer model, was assessed with a view to examining the validity and reliability of the indicators. Thereafter, the structural model, also known as the inner model, was examined to evaluate the hypothesised relationships between the variables. The next chapter introduces the discussion of the findings, the contribution to the body of knowledge, implications, limitations, and the suggestions for future research studies.



#### **CHAPTER FIVE**

#### DISCUSSION, IMPLICATIONS AND CONCLUSION

#### 5.1 Introduction

Chapter Five discusses the findings of the current study. The discussion is presented in accordance with the research questions, hypotheses testing and literature review. In this chapter, the theoretical and practical implications of the present study are discussed. The limitations of the research and recommendations for future research were also presented. The chapter ended by presenting the conclusions of the study.

## 5.2 Discussion of the First Research Objective

As outlined earlier, the discussion begins with the first objective of the current study to examine the direct relationships between the SMEs' tax evasion and its determinants. In measuring the first objective, seven (7) hypotheses were proposed. The probability of detection, tax penalty, tax fairness, and peer influence were hypothesised to have a negative influence on SMEs' tax evasion. The tax rate, corruption, and economic domination were hypothesised to have a positive relationship on SMEs' tax evasion. The direct relationships tested for the seven (7) hypotheses were labeled as H<sub>1</sub>, H<sub>3</sub>, H<sub>5</sub>, H<sub>7</sub>, H<sub>9</sub>, H<sub>11</sub>, and H<sub>13</sub>. The findings related to the seven (7) hypotheses confirm the existence of direct relationships. The detail discussions on the direct relationships of the first objective are as follows:

## 5.2.1 Probability of Detection and Tax Evasion

Probability of detection is identified as a crucial restraint to evading tax (Park & Hyun, 2003). In the current study, probability of detection refers to the degree of likelihood of ascertaining tax evasion with income tax law in relation to declining

income or increasing expenditure. Hypothesis one (1) (H<sub>1</sub>), which hypothesised a negative relationship involving probability of detection and tax evasion, was found to be supported. As indicated by the hypothesis testing result, when SMEs have a perception that the system of audit could discover tax evasion activity, this will lead to a reduction in tax evasion. For instance, when the number of taxpayers to be audited by the relevant authority in the preceding year is increased, this subsequently leads to higher income from taxes due to the perception by the taxpayers that higher irregularities may be detected in the present year audit.

The general belief is that business owners-managers are rational in their decisions. Therefore, they are expected to seek maximization of the utility from the tax evasion gamble. They need to weigh concurrently the profit from successful tax evasion against the probable risk of discovery and punishment. By considering the fine for tax evasion, SMEs are obliged to pay the required taxes out of fear. The finding of the current study in relation to probability of detection and tax evasion is in line with the Deterrence Theory prediction (Becker, 1968; Allingham & Sandmo, 1972; Srinivasan, 1973), which agrees that tax evasion decreases as a result of fear of detection. Besides, the finding of the present study is also in line with the findings in tax evasion literature, that imply a significant relationship between the probability of detection and tax evasion (Witte & Woodbury, 1985; Dubin & Wilde, 1988; Kamdar, 1997; Slemrod et al., 2001; Evans et al., 2005; Nur-tegin, 2008; Abdul-Jabbar, 2009; Sapiei & Kasipillai, 2013; Tagkalakis, 2013; Ayers et al., 2015; Ayuba et al., 2016b; Bott et al., 2017; Almunia & Lopez-Rodriguez, 2018). The current study confirms that the probability of detection has proven to be used as a potential tool in tax system to enforce tax compliance in Palestine.

Also, the finding of the present study affirms the assertion by other studies that the Palestinian tax system is weak (Fjeldstad & Al-Zagha, 2004; Rahhal, 2014, 2017). This assertion could be based on the weak enforcement of tax audit system in Palestine due to the unique characteristics of the Palestinian nature under Israel domination (Fjeldstad & Al-Zagha, 2004). Moreover, the domination of Israeli has affected the tax administration, thereby contributing to the weak enforcement of tax laws and encouraging tax evasion (Rahhal, 2014). In most developing countries, the institutions charged with the mandate of tax collection are considered to have a weak and ineffective mechanism for enforcing tax compliance (Torgler, 2003c). The current study has revealed that the perception of high probability to be detected by the audit system could play a significant role in decreasing the incidence of tax evasion. In the case of Palestine, the present study highlights the importance of probability of detection in reducing tax evasion among SMEs by creating a strong mechanism to monitor and inspect payment of the right amount of taxes by SMEs.

## 5.2.2 Tax Penalty and Tax Evasion

Another objective in the current study was to examine how tax penalty influences tax evasion among the Palestinian SMEs. The tax penalty is viewed as a critical component of the tax system structure which influences tax evasion (Chau & Leung, 2009; Devos, 2014). The risk of tax penalties serves to discourage tax evasion (Feld & Frey, 2006). Based on the third hypothesis of the present study, the relationship between tax penalty and income tax evasion is negative (H<sub>3</sub>). The result showed that tax penalty had a significant and negative relationship on the decision of SMEs to pay the income tax. Therefore, the result indicated that the tax penalty performs a

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significant role in influencing the decision of payment of income tax by the SMEs in Palestine.

This finding supports the prediction of the Deterrence Theory (Allingham & Sandom, 1972), which states that the tax penalty leads to a decrease in tax evasion. This finding agrees with some existing studies on the link between tax penalty and income tax evasion. In addition, many previous studies also reported that the relationship between tax penalty and income tax evasion is negative and significant (e.g., Friedland *et al.*, 1978; Witte & Woodbury, 1985; Alm *et al.*, 1995; Park & Hyun, 2003; Feld & Frey, 2006; Hasseldine *et al.*, 2007; Chau & Leung, 2009).

Based on the outcome of the current study, it can be inferred that tax penalty is a veritable tool for decreasing the income tax evasion. This therefore, should be considered a major mechanism for enforcing tax system in Palestine, by considering the fact that the recent amendment of the tax law in Palestine primarily aimed at improving the tax collection and decreasing the tax evasion. In line with the above objective, the study further suggests that the government should make provision for tax court which will handle all tax issues and ensure punitive measures for evaders as stipulated by the tax law (Rahhal, 2014). The negative relationship observed in the current study could be associated with the rational behaviour of SMEs' owners-managers. The owners-managers are expected to maximize the expected utility from the tax evasion gamble by weighing the benefits of succeeding against the tax penalty. SMEs are expected to pay taxes as a result of punishment that could result from evading the income tax. Therefore, the present study concludes that tax penalties serve as an important tool for discouraging evasion of income tax by the Palestinian SMEs.

#### 5.2.3 Tax Fairness and Tax Evasion

The way taxpayers perceive tax fairness in the tax system is a critical determinant of tax evasion decision (Kirchler, Kogler & Muehlbacher, 2014; Kostritsa & Sittler, 2017). That is, the public view on a tax system is important, especially if the success of the tax system depends to a large extent on voluntary tax compliance (Gilligan & Richardson, 2005). The issue of tax fairness is much related to the perception of an improved tax system, whereby tax fairness and tax evasion have a negative relationship (Roberts & Hite, 1994). The fifth hypothesis of the study H<sub>5</sub> postulated that a negative relationship exists between tax evasion and tax fairness. The finding of the current study supports the prior expectation and H<sub>5</sub> is accepted. This implies that when SMEs' owners-managers perceive fairness in the tax system, they are motivated to comply.

The findings of the current study also validate the theoretical description; fairness in the tax system encourages compliance, and this is in accordance with the Theory of Social Influence. This discovery conforms to the early tax evasion studies that described the relationship between tax evasion and tax fairness as negative (Alm *et al.*, 1992; Roberts & Hite, 1994; Chan *et al.*, 2000; Richardson, 2006; Cummings *et al.*, 2009; Sapiei & Kasipillai, 2013; Belay & Viswanadham, 2016; Puspita *et al.*, 2016; Farrar *et al.*, 2017; Kostritsa & Sittler, 2017).

Generally, studies that analysed the role of tax fairness have commonly found that taxpayers are liable not to conform with the tax system when they believe it is unfair (Wenzel, 2002). Based on the first research objective of the present study, tax fairness is considered one of the main factors that determine tax evasion. Therefore,

promoting tax fairness and equity in the tax system of Palestine will reduce tax evasion among the Palestinian SMEs.

#### 5.2.4 Peer Influence and Tax Evasion

Peer influence is part of attitude and perception in Fischer model. The word 'Peer' is generally referred to as members of a taxpayer that constitutes co-workers, friends, relatives, and colleagues (Jackson & Milliron, 1986). According to Chau and Leung (2009), peer influence is revealed in the taxpayer's attitude of compliance or evasion of tax. Alm *et al.* (2016) also affirmed that peer influence is the main determinant in tax evasion. Subsequently, the present study hypothesised that a negative and significant relationship exists between the income tax evasion and peer influence (H<sub>7</sub>).

In accordance with the expectation of the present study, the relationship of peer influences on tax evasion among the Palestinian SMEs was found to be significant. Therefore, the proposed hypothesis was accepted. Also, the current outcome is in alliance with the Socio-Psychological approach (Bandura, 1977). The Theory of Social Influence is interrelated to the Social Learning Theory in which the idea is ascribed to the fact mentioned by Bandura (1977), whereby a person is influenced by the environment. In addition, the Social Influence Theory asserts that the individual's behaviour in the environment is influenced intentionally or unintentionally by others.

The outcomes also correspond with the earlier studies, which agree that there is a relationship between tax evasion and peer influence (Beck & Ajzen, 1991; Scholz *et al.*, 1992; Cullis & Lewis, 1997; Fischbacher, Gächter & Fehr, 2001; Richardson &

Sawyer, 2001; Bobek & Hatfield, 2003; Alm & Torgler, 2006; Tsakumis *et al.*, 2007; Kirchler *et al.*, 2008; Çevik & Yeniçeri, 2013; Alm *et al.*, 2016; Alleyne & Harris, 2017). In conclusion, peer influence is considered in the context of the Palestinian SMEs by the present study to have a direct effect on their decision regarding income tax evasion. Therefore, peer influence plays a major role in controlling the income tax evasion by the Palestinians SMEs.

### 5.2.5 Tax Rate and Tax Evasion

Taxpayers consider tax rate as one of the major factors in their view of equity and fairness in the entire system of taxation (Devos, 2007). In the present study, perception on tax rate was described as the perception of SMEs of the fairness of the tax rate in accordance with their profit and size performance. Tax rate is referred to as the perceived impartiality in the burden distribution and tax rate structure (Gilligan & Richardson, 2005). Hypothesis nine (9) (H<sub>9</sub>) proposed that a positive relationship exists between tax evasion and tax rate. Hence, the result confirms the proposed hypothesis. The result agrees with the findings of earlier studies that also established the existence of a positive and significant relationship of tax rate on tax evasion (e.g., Alm *et al.*, 1990; Alm *et al.*, 1992; Fisman & Wei, 2004; Martinez-Vazquez & Rider, 2005; Malkawi & Haloush, 2008; Gorodnichenko *et al.*, 2009; Abiola & Asiweh, 2012; Freire-Seren & Panades, 2013; Guldana, 2013; Dlamini, 2017; Rahhal, 2017; Ottone *et al.*, 2018).

The present findings demonstrated that the SMEs perceived the tax rate structure to be unfair, and hence encouraged tax evasion. The present finding described the actual fact that tax rate in Palestine is at 15% of the taxable profit for large companies. SMEs viewed this as unfair because the big companies have a higher

ability to pay the income tax; therefore, they should pay a higher rate more than SMEs. Therefore, the finding provides evidence that tax rate is a significant determinant of income tax evasion among the Palestinian SMEs.

### 5.2.6 Corruption and Tax Evasion

The present study describes corruption as offering a bribe to tax collectors to lessen the tax liability. Hypothesis 11 (H<sub>11</sub>) proposed a positive relationship of corruption on tax evasion. The finding shows that giving a bribe to tax officials is not significantly increasing tax evasion among the SMEs. This finding is not consistent with several early corporate tax evasion studies (Torgler, 2005; Torgler & Schneider, 2007; Uslaner, 2010; Alm *et al.*, 2016). This outcome corresponds with the result of Imam and Jacobs (2014).

Many studies have reported a negative and significant relationship of bribery on the tax evasion due to the efforts of the present government which established a priority to fight corruption and limit the bribery. Consequently, the view of the taxpayers towards tax evasion might have changed. Hence, the current findings in the study can be justified by the strong will of the present government to implement anti-corruption policies and promote the efficiency of its public sector (Palestinian Council of Ministers, 2017). Several anti-corruption policies were adopted by the Palestinian Council of Ministers, such as the corrupted government officials were charged and prosecuted, and the appointed were properly scrutinised to make sure that they have uncorrupted personalities. Accordingly, the tax authority in the country has recently issued orders to its offices across the country to begin tax recovery operations and ensure zero-tolerance for tax evasion. Hence, the above

scenarios may explain why bribery failed to have a significant influence on tax evasion in the perceptions of the Palestinian SMEs.

### 5.2.7 Economic Domination and Tax Evasion

The present study also aimed at examining the influence of economic domination on the income tax evasion among the Palestinian SMEs. The economic domination measures the effect of one (1) group on another (second group) that limits the independence of the second (2) group e.g. to utilize its resources (Sidanius *et al.*, 2004). The effects of the Israeli control on the Palestinian territories remain one of the key determinants of the performance of the Palestinian economy and its development (Khalidi & Taghdisi-Rad, 2009). This also poses a challenge to the effective management of the Palestinian economic institutions such as the tax authority (Fjeldstad & Al-Zagha, 2004). Given this context, the current study predicted that there is a positive and significant relationship between economic domination and the income tax evasion (H<sub>13</sub>).

The result of the current study confirms the predictions that economic domination has an important role in the income tax evasion in Palestine. The study found that economic domination has a positive significant relationship with the income tax evasion. Thus, the present finding is also in agreement with the Social Dominance Theory (Sidanius & Pratto, 1999). According to the theory, the domination of Israel on Palestine can be seen in the control of the structures of the Palestinian economy, such as the tax administration hence facilitating tax evasion. This is consistent with the postulation of the Social Dominance Theory. The result therefore, implies that higher economic domination leads to a higher level of tax evasion by the SMEs.

The extensive review of literature revealed that there is one (1) existing study that has empirically examined the relationship between the Israeli economic agreement with the Palestinian Authority and tax evasion. Particularly, Rahhal, (2014) carried out research to investigate the economic agreement involving the control of the Palestinian economic institutions. Based on a survey concerned with the views of the tax managers in the Palestinian income tax departments, the study found that the economic agreement is an important foundation for tax evasion in Palestine.

The Israeli economic domination of Palestine made the tax administration inefficient; the domination weakens the enforcement of tax laws, thus leading to tax evasion (Rahhal, 2014). In addition, the Israeli domination of Palestine has also affected other Palestinian formal institutions and reduced the Palestinian Authority independence. This limitation of independence might restrict the ability of tax administration to enforce and ensure tax compliance. In short, the finding of the current study provided new empirical evidence that a positive and significant relationship exists between economic domination and the income tax evasion.

### **5.3 Discussion of the Second Research Objective**

This sub-section analyses the results related to the second objective of the current study. This objective involves the moderating effect of the public spirit on the relationship between SMEs' tax evasion and the probability of detection, tax penalty, tax fairness, peer influence, tax rate, and corruption. Out of the six (6) moderated relationships, only three (3) were found to be significant. Specifically, the relationship between probability of detection and tax evasion, tax penalty and tax evasion and tax fairness and tax evasion related to H<sub>2</sub>, H<sub>4</sub>, and H<sub>6</sub> respectively were

all significant. The study postulated that the public spirit has an important effect on all the specified associations. The result is presented in details in the next subsection, according to the specified hypothesis of the study.

## 5.3.1 The Moderating Effect of Public Spirit on the Relationship between Probability of Detection and Tax Evasion

Hypothesis two (2) (H<sub>2</sub>) postulated that the public spirit strengthens the negative relationship between the probability of detection and the income tax evasion. The finding supports the hypothesised interaction relationship between the probability of detection and the income tax evasion. Hence, the result reveals that the relationship between the probability of detection and the income tax evasion was negatively and significantly moderated by the public spirit.

According to the economic model, taxpayers will attempt to maximize the outcome of tax compliance decision by considering the benefits from successful evasion against the risk of detection. Allingham and Sandmo (1972) therefore concluded that when the probability of detection is high, it will lead to a larger income being declared. Based on the above discussion, the enforcement must be deterrent by enforcing the auditing plans to discourage tax evasion. In Palestine, the tax audit is considered weak due to Israeli domination, which also contributes to weakening the ability of tax administration to enforce the tax laws (Rahhal, 2014). Nevertheless, the present study found that the public spirit helps strengthen the negative relationship between probability of detection and income tax evasion. This could be a result of the role of the public spirit interacting with the probability of detection and consequently reducing the income tax evasion in Palestine. Therefore, this finding is congruent with the Social Exchange Theory, which stressed the fact that benefits can

be also non-economic such as psychological or enthusiastic benefits. That is, the possession of higher public spirit by taxpayers can lead to more compliance of payment of their taxes without considering the probability of detection.

# 5.3.2 The Moderating Effect of Public Spirit on the Relationship between Tax Penalty and Tax Evasion

Hypothesis four (4) (H<sub>4</sub>), postulated that the negative relationship between tax penalty and income tax evasion is strengthened by public spirit. In this postulation, the current study revealed that the public spirit has a moderating effect on the relationship between tax penalty and income tax evasion. In this regard, Allingham and Sandmo (1972) affirm that the higher the tax penalties are, the larger the incomes will be declared. Hence, Chau and Leung (2009) emphasized that tax evasion can be reduced by raising the tax penalties related with it.

Based on the above discussion, to obtain the effectiveness of tax penalties, they must be applied and enforced without delay (Feld & Frey, 2006). However, the Palestinian tax penalty system is considered weak by the taxpayers due to weak enforcement (Rahhal, 2014). Therefore, the present finding showed that the public spirit strengthened the negative relationship between tax penalty and income tax evasion. This finding may be associated with the role of the public spirit in motivating the taxpayers to pay the required taxes without considering the tax penalty. Hence, the public spirit is believed to discourage tax evasion. This public spirit refers to the positive attitude adopted by the citizens for the benefits of the community, regardless that it may increase the personal cost or reduce the personal profits (Andriani, 2015). Thus, high levels of public spirit will have a strong effect on the relationship between tax penalty and income tax evasion among the SMEs in Palestine.

### 5.3.3 The Moderating Effect of Public Spirit on the Relationship between Tax Fairness and Tax Evasion

The current study also hypothesised the role of public spirit in strengthening the negative relationship between tax fairness and income tax evasion (H<sub>6</sub>). The empirical results from the study supported the moderating effect of public spirit as proposed. This implies that tax fairness has consequence on the income tax evasion given the role of the high public spirit. The implication is that the perception of higher public spirit among SMEs' owners-managers in relation to tax fairness affects their income tax evasion.

There is a general perception among the tax administrators and the taxpayers that the rising dissatisfaction towards the unfair nature of the tax system constitutes one of the major causes of the rising tax evasion (Farrar *et al.*, 2017). Unfair tax system may provide justification for people to cheat (Andreoni *et al.*, 1998). Hence, payment of taxes significantly depends on the way fairness is perceived in the tax system. In this context, the nature of the Palestinian tax system found to be unfair (Abdel-Razek, 2016). Hence, the findings of the present study revealed the strengthening role of the public spirit on the negative relationship between tax fairness and the income tax evasion. The possible reason attributed to this finding is that taxpayers' commitment to public benefit may result in good feelings and their dedication towards fulfilling their tax obligations (Andreoni, 1989).

According to Lubian and Zarri (2011), cheating in relation to tax increases different hedonic psychological costs that include nervousness, guilt, a reduction in esteem or social costs such as shame or loss of reputation. Andriani (2015) viewed public spirit as a positive attitude adopted by people that makes them inclined towards public

benefits. Notwithstanding, it might make them incur cost personally and/or reduce their personal benefits. This also affirms the strengthening effect of public spirit on the negative relationship of tax fairness on SMEs' income tax evasion in Palestine.

### 5.3.4 The Moderating Effect of Public Spirit on the Relationship between Peer Influence and Tax Evasion

The current study proposed that the public spirit will also strengthen the negative relationship existing between peer influence and income tax evasion (H<sub>8</sub>). On the contrary, the results from the current study failed to support the moderating effect of the public spirit on the relationship between peer influence and tax evasion. Kirchler *et al.* (2008) argue that if the taxpayers believe that tax evasion is widespread and approved by their referent group, they are more likely to be evaders as well. Hence, taxpayers with peers engaging in tax evasion are more likely to involved in tax evasion (Alm *et al.*, 2016). The effect of social information has been shown to lead to coordination in the social norms (Traxler, 2010). For example, the cynical descriptive conclusions on the behaviour of the government threaten to destroy the norm that supports the public spirit (Brennan & Buchanan, 1988). They pointed out that the cynicism of journalists as well as writings of professors could lead to weak public spirit. Consequently, the implication of the non-existence of strong public spirit is that the society will look bleaker, and thereby leading to more impoverished individuals' lives.

In this regard, Andriani (2015) viewed the public spirit as a positive attitude adopted by people towards the public benefits, even though it could lead to a reduction in their personal benefits. However, the public spirit in the findings of the current study does not strengthen the relationship between peer influence and income tax evasion.

This may be due to the collectivist nature of the Palestinian society; the social relationships in Palestine rely mainly on the cooperation existing within the groups. As a result, the citizens may be discouraged and are unwilling to make contributions to the public good (Andriani, 2015). In addition, the public institutions are considered weak; therefore, this result in undermining the cooperative behaviour and the ability to be effective under low-cost enforcement of contracts (North, 1991), which can possibly favour tax evasion (Frey & Torgler, 2007).

Like most developing countries, voluntary associations perform an important function in the socio-economic activities of Palestine (Andriani, 2015). As a matter of fact, institutions are faced with numerous challenges in prevailing towards the provision of goods and services to the public as a result of their low tax base and weak organisational capacity (Durlauf & Fafchamps, 2004). This is particularly true in most cases of state capacity building, in which the taxpayers may have a perception that weak and non-functional institutions lack the ability to provide the required welfare and social goals. As a response to this perception, tax collection may decrease and taxpayers could also use tax evasion as a means to express their dissatisfaction. Consequently, the level of public spirit does not have an effect on the relationship between peer influence and income tax evasion among the SMEs in Palestine.

# 5.3.5 The Moderating Effect of Public Spirit on the Relationship between Tax Rate and Tax Evasion

Hypothesis 10 ( $H_{10}$ ) proposed that the public spirit will weaken the positive relationship of tax rate on the income tax evasion. Based on the results, there is no adequate evidence to support the proposed moderation effect of the public spirit. The

study found that the public spirit does not moderate the relationship between tax rate and the income tax evasion. Devos (2007) identified tax rate as an important tax structure variable related to the perception of equity of the tax system. According to the Deterrence Theory, tax rate has a significant relationship with tax evasion (Allingham & Sandmo, 1972). Kirchler *et al.* (2007) in their review of the literature showed that most studies reported high tax evasion with high tax rates.

The result of the present study revealed that in no way the public spirit weakens the positive relationship between tax rate and income tax evasion in Palestine. This therefore, does not discourage the SMEs' owners-managers in Palestine to decrease their income tax evasion level since the taxpayers may perceive the tax rate structure to be unfair and is an important factor in their tax evasion decision. Although, about 10 amendments have been carried out on the income tax rate in Palestine since 2004, this has not yielded any significant increases in the tax revenue, and this could be described as legislative chaos (Fayek, 2015). This is an indication that the perception of dysfunctional institutions reduces even more the moral cost of tax evasion (Torgler, 2005). Hence, it is suggested that the level of public spirit does not have an effect on the relationship between tax rate and income tax evasion among the SMEs in Palestine.

## 5.3.6 The Moderating Effect of Public Spirit on the Relationship between Corruption and Tax Evasion

Based on hypothesis 12 (H<sub>12</sub>), the public spirit was postulated to play a substantial role in the specified relationship. That is, the public spirit would weaken the positive relationship between corruption and income tax evasion. The result from the present study did not support the hypothesis, indicating that the relationship between

corruption and income tax evasion was not moderated by the public spirit. Uslaner (2010) stated the corruption will discourage taxpayer to pay taxes. The perception of an individual towards good governance is recognised as a determinant of tax evasion (Cummings *et al.*, 2009). Andriani (2015) stated that an individual is said to have a positive perception towards the formal institutions when he/she takes the rule of law as very essential and has a high level of trust in the institutions. Conversely, an individual will have a negative perception towards the formal institutions when he/she regards the rule of law as unimportant, and also has low trust in the institutions.

Andriani (2015) pointed out the significance of the institutional trust and the rule of law on tax evasion even in a context subject to weak formal institutions. This implies that with a dependable process of institutional transparency, tax evasion might decrease. In contrast, the widespread perception towards corruption can decrease the willingness of the taxpayers to support the public good. Therefore, the relationship between corruption and income tax evasion is not weakened by the public spirit. This might be due to weak sovereignty and potential scepticism about how state capacity building has been carried out in Palestine which might affect the current state of the public spirit. The disappointing state of the Palestinians towards the issues concerning its political process might also reflect on tax evasion level. Hence, the outcome of the present study signifies that the public spirit does not significantly weaken the existing positive relationship between corruption and income tax evasion among the Palestinian SMEs.

The current study is different from other Palestinian studies since it provided some evidence on the determinants of tax evasion (e.g. Rahhal, 2014, 2017; Anderiani, 2015). On the one hand, these studies have focused on economic and non-economic factors in isolation based on the individual taxpayers. On the other hand, the present study combines economic and non-economic factors together in a single research model as shown in the final model in figure 5.1 below, to provide a better explanation and understanding of the determinants of income tax evasion among the Palestinian SMEs. The model consists of only the factors that have a direct significant relationship on the income tax evasion and/or are significantly moderated by the public spirit (see Table 4.20). Therefore, the public policy makers should take steps to formulate strategies and policies aimed at influencing the factors depicted in the model to discourage the income tax evasion among the Palestinian SMEs.

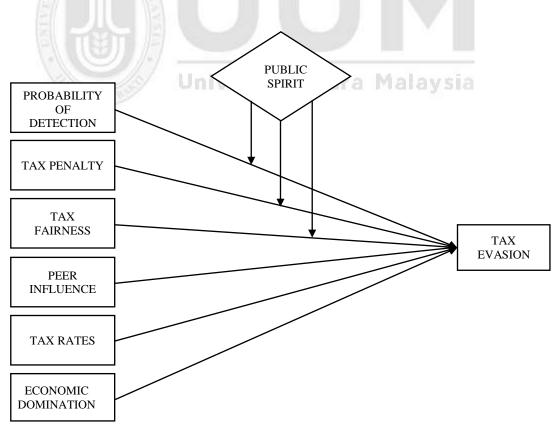


Figure 5.1

Recommended Income Tax Evasion Model for Palestinian SMEs

### **5.4 Implications of Research**

The study presents an account of the determinants of income tax evasion among the Palestinian SMEs, and the moderating effect of the public spirit among the specified relationships. The results have a number of both practical and theoretical implications in the field of SMEs and tax evasion. These implications are discussed below.

### **5.4.1 Theoretical Implications**

The current study is based on Fischer model, which was developed based on the integration of the Deterrence theory and Socio-Psychological theories (behavioural and economic). Therefore, the current study presents empirical evidence on the theoretical relationships hypothesised. In addition, the model used in the study also examined the role of the economic and non-economic factors in tax evasion. Specifically, the model examined the direct relationships of factors, such as probability of detection, tax penalty, tax fairness, peer influence, tax rate, corruption, and the economic domination on tax evasion. The model also investigated how the public spirit moderates the hypothesised direct relationships between the variables (probability of detection, tax penalty, tax fairness, peer influence, tax rate, and corruption) and tax evasion among the SMEs taxpayers.

Earlier studies have shown the relationship of a number of variables on tax evasion as related to corporate taxpayers (e.g. Kamdar, 1997; Joulfaian & Rider, 1998; Evans *et al.*, 2005; Nur-tegin, 2008; Joulfaian, 2000, 2009; Abdul-Jabbar, 2009; Alon & Hageman, 2013; Sapiei & Kasipillai, 2013; Tagkalakis, 2013; Imam & Jacobs, 2014; Yusof, Ming Ling & Bee Wah, 2014; DeBacker *et al.*, 2015; Alm *et al.*, 2016). Nevertheless, tax evasion activities remain a complex behaviour demanding

alternative exploration for a better understanding (Cummings *et al.*, 2009; Alm *et al.*, 2012). Hence, the model employed in the current study expanded the literature by examining the direct relationship of economic domination and the moderating effect of the public spirit.

As highlighted earlier, the model of the current study was built on the integration of both Deterrence and Socio-Psychological theories. Therefore, in the context of the present study, Deterrence Theory postulates that factors, such as the probability of detection, tax penalty, and tax rate influence the tax evasion. By relying on the Social Influence Theory, the current study also proposed to investigate the influence of tax fairness, peer influence, and corruption on tax evasion. Consequently, the model of the present study contributes to both theories of Deterrence and Socio-Psychological in the area of corporate tax evasion by employing the two (2) theories to analyse and provide empirical evidence to explain tax evasion.

The literature on the connection between economic domination and taxes is very limited. Hence, the current study represents the first study to empirically provide evidence on the relationship of economic domination (Social Dominance Theory) on tax evasion. Base on reviewing the existing studies, it is concluded that there is no study in the literature that has examined the influence of the economic domination on the level of tax evasion among SMEs, especially in the Arab countries and Middle Eastern region such as Palestine in particular. Thus, the current study has made a theoretical contribution by empirically examining the relationship of economic domination on the level of tax evasion. Based on the outcome of the current study, the level of tax evasion increases when accompanied by economic domination.

In addition, this is the first study to employ the public spirit (Social Exchange Theory) as a moderator and examine its effect on the relationships between tax evasion and other factors, like probability of detection, tax penalty, tax fairness, peer influence, tax rate, and corruption. That is, the current study investigated the moderating effect of the public spirit on the relationship between Tax evasion and factors from both Deterrence Theory and Socio-Psychological theories, using an extended Fischer model. Therefore, the study contributed to knowledge by integrating the public spirit as a moderator and the economic domination as a new independent variable in the context of tax evasion among the Palestinian SMEs. Although the existing studies have used Fischer model, these studies are limited only to the context of the individual and also the salaries income tax. In contrast, the current study has focused on the SMEs level.

The use of Fischer model is supported by Chan *et al.* (2000), who suggested that Fischer model is a viable conceptual framework for research on the taxpayer's compliance behaviour. In addition, Fischer model is supported by the Deterrence Theory and the Socio-Psychological theories. Thus, the current study extended Fischer model by incorporating the Social Dominance Theory. Also, the current study is considered the first to test the Social Dominance Theory as a supporting theory to Socio-Psychological theories in tax context and in Fischer model. The past studies concentrated on the individual taxpayers in the Palestinian context, whereas the current study extended Fischer model to focus on the SMEs taxpayers for a better understanding of tax evasion in Palestine.

Based on the existing literature on the area of business tax evasion, it can be deduced that the majority of the studies focused on the developed countries, whereas studies in the developing countries such as Palestine are scant. Hence, the current study was carried out in Palestine in order to contribute to bridging the gap in the literature and also providing a better comprehension of the SMEs taxpayers' tax evasion activity in the developing countries and the Middle East region. This is in line with the suggestions of Andreoni *et al.* (1998) and Alon and Hageman (2013) who recommended further research in this field, specifically in the context of the developing countries. Hence, the present study contributes to closing the wide research gap between the developed and the developing countries. Given the fact that, to the best knowledge of the researcher, there is no existing study that has examined the public spirit as a moderator on the relationship between tax evasion and its determinants, especially for Fischer model in the context of tax evasion among the Palestinian SMEs.

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The findings confirm the incidental role of the public spirit. Hence, the role of the public spirit on categories of both the deterrence factors and social factors could be either positive or negative. Various scenarios related to the role of the public spirit and its effect are dependent on the nature of the independent factors. Thus, the public spirit influences the effectiveness of the probability of detection to reduce the level of tax evasion. The public spirit moderated negatively the relationship between tax penalty and tax evasion. In addition, it enhances the effect of tax fairness as well as raises the chances of SMEs to comply with income tax payment. This suggests that the public spirit serves an important factor that interrelates with the probability of detection, tax penalty, and tax fairness regarding the tax evasion.

### **5.4.2 Practical Implications**

Improving the generation of revenue capacity especially from internal sources remains a core objective for the Palestinian government. This arises due to the serious declining trend of its revenue and the heavy decline in the amount of foreign aids offered to Palestine. Hence, the present study is of enormous importance to the tax authority, as it highlights the inherent challenges of tax evasion among the SMEs taxpayers who constitute an integral part of the corporate taxpayers in Palestine. Undoubtedly, controlling tax evasion and improving the compliance will help the Palestinian government reduce its budget deficit and also achieve fiscal sustainability in Palestine. Tax evasion is a complex behaviour (Alm *et al.*, 2012), and requires the consideration of several factors ranging from the enforcement to voluntary and institutional perspectives. The model for the current study was built on incorporating these factors together to form a broader model that can assess tax evasion behaviour in Palestine.

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The findings of the present study revealed some variables included in the model to explain tax evasion which were found to show a significant relationship with tax evasion. The results of the current study are also of significant importance for different categories of organisations, such as government agencies, tax authority, as well as SMEs. Among the factors analysed, the probability of detection has the highest significance in terms of how it influences the income tax evasion. It was found to be negatively related to income tax evasion among SMEs in Palestine. This further suggests that the Palestinian tax authority could control SMEs income tax evasion by increasing the number of operational inspections on SMEs. It further encourages investing in boosting the efficiency of tax auditors as well as their

friendly remediation. Hence, the tax authority needs to widen the coverage of its audit. Even though it is practically impossible to audit every taxpayer, the tax authority can widen their scope of audit coverage as much as possible. This will be an important mechanism to reduce the high level of tax evasion and increase the compliance of taxpayers. In addition, an undercover investigation should be launched by the tax authority to detect tax evaders such as the unofficial SMEs. This approach can enhance the identification of a large group of tax evaders.

Another finding is that the tax penalty discourages tax evasion of SMEs' owners-managers. Therefore, the government and the tax authority should not overlook this factor. Imposing and enforcing stringent sanctions on defaulters is necessary, as SMEs that are determined to be income tax evaders should be taken to court, and are mandated to pay a substantial tax penalty as well as the payment of the due tax with interest. The tax evasion penalties should be clearly defined and applicable to all tax evaders. This will facilitate SMEs' owners-managers to pay the income taxes on time.

Fairness in the tax system was found to be important in determining voluntary compliance. The perception of tax fairness by SMEs' taxpayers is another important area that the tax policy should address. One concern in this regard is the ability of SMEs' taxpayers to employ the services of the tax expert while struggling to increase their businesses. One of the major roles of the tax authority is to create awareness among the taxpayers towards the relevance of the tax money for the provision of public goods and their responsibility to pay their taxes. This could change the tax authority perception and motivate SMEs' taxpayers to consider the

tax as fair rather than a burden on them compared to large companies. Consequently, this practice can lead SMEs' taxpayers' to have the perception of fairness towards the tax system, thus encouraging them to willingly comply with the tax law.

Regarding the case of peer influence on the income tax evasion among the SMEs in Palestine, the relationship was negative. Thus, it is suggested that the Palestinian government needs to create more awareness among the SMEs' owners-managers regarding the perception of the importance of the compliance to pay the income tax considering the benefits of paying. More SMEs might need to be discouraged from the act of income tax evasion. Thus, the study recommends that the government should commence a deliberate, and nationwide awareness campaign on the negative influence of income tax evasion on the country's economic growth and development.

Regarding the tax rate, based on the finding of the current study, SMEs' taxpayers consider the current tax rate as unfair because all large company taxpayers in Palestine pay taxes under the same rate. Consequently, this implies that the taxes of high-profit businesses are less than the average. The SMEs taxpayers' category shows a preference for a progressive tax rate structure. Therefore, the government and tax authority should be given due consideration for tax rate issues which confront the SMEs in Palestine. When having a lower tax rate on their income, SMEs in Palestine build up more profits for financing their growth and expansion. This will in turn motivate them to pay more taxes in the future.

The current study found a positive relationship between economic domination and the income tax evasion among the Palestinian SMEs. The economic domination is regarded as the effect of the burdens and the limitations imposed by the Israeli economic restrictions on the SMEs' taxpayers. As a result of the unusual nature of the tax environment in Palestine arising due to the challenges posed by Israeli domination, the present study found that economic domination directly influences the tax evasion. Therefore, the government and tax authority should consider the measurements to dampen the effect of the domination through creating awareness among the taxpayers regarding the effect of the Israeli economic restriction on the Palestinian economy, thereby discouraging the attitude towards the income tax evasion.

The outcome of the current study revealed that the public spirit is also an important factor to be considered in studying tax evasion. Hence, the findings of the study provide a valuable guide on how the public spirit formation either motivates or discourages tax evasion among the Palestinian SMEs. The findings showed that the possibility of SMEs' engaging in tax evasion is reduced when there is a higher probability of detection, tax penalty, and tax fairness especially when the moderating effect of the public spirit is considered. Therefore, as policy makers, the government can play a more crucial role by inculcating a better public spirit on taxpayers, thereby enhancing the role of the factors like the probability of detection, tax penalty, and tax fairness in decreasing the incidence of income tax evasion.

The present study suggested that more efforts should be carried out towards alerting the government and tax authority to discourage the income tax evasion of SMEs. By considering the context of other developing countries, the present study provides empirical support related to the important factors influencing tax evasion, particularly in the context of the Middle East countries which lack research related to

the area of tax evasion. These findings on the determinants of tax evasion may also be applicable to tax evasion activities in other developing countries with similar taxpayers' backgrounds, economic environments, and policies.

### 5.5 Limitations and Suggestion for Future Studies

Despite the numerous important contributions highlighted earlier, the present study also has limitations that need to be examined further. For instance, the current study employed the quantitative research approach using a questionnaire as a data collection tool. The questionnaire was designed based on the adaptation of valid scale items from extant studies, and the factors in the survey were measured subjectively. Even though reliability and validity tests were first carried out on the measurements for all the factors used in the current study and confirmed to be reliable and valid, the social desirability problem may still pose a challenge (Kollmann & Stockmann, 2014), alongside judgmental bias (Dunlop & Lee, 2004). In addition, the current study investigated tax evasion using self-reported data by owner-managers of the Palestinian SMEs. Although, owners-managers are most effective and reliable pathway to provide information regarding their business tax compliance decision, this approach, despite its relevancy and usability, is susceptible to have respondents' bias (Dunlop & Lee, 2004).

Consequently, it is recommended that future studies may consider strategies to solve this challenge. One important way is by investigating the tax evasion of SME taxpayers using tax authority data. In addition, the current study suggests using a mixed method which entails employing both a survey and qualitative methods such as case studies and interviews to offer in-depth insights and provide better support

regarding the findings. The mixed-method approach provides stronger support arising from different perspectives.

Secondly, in spite of the numerous follow up after distributing the questionnaires, the response rate for the present study was at 37%, which is typically accepted as a satisfactory response rate in the case of owners-managers in Palestine. The limitation in data collection was the result of the lack of full cooperation by the respondents. This can be attributed to the sensitive nature of the taxation issues, lack of time to complete the survey by potential respondents, and lack of interest in completing the survey by respondents.

Finally, almost 40% of the total variance in the income tax evasion was accounted for by the model used in the current study. This implies that the remaining 60% variance in the income tax evasion is accounted for by other variables that are not captured in the current model. The difference in the variance between the current study and the existing ones can be attributed to the differences in the cultural factors and policies of the government. Accordingly, the present study recommends that future studies should incorporate other possible variables that are expected to influence the income tax evasion, like tax knowledge, tax service quality, patriotism, religion, external audit, and trust in the government. Moreover, the model used in the current study could also be replicated in other contexts, particularly those countries whose economy faces challenges of instability and domination by other countries.

#### **5.6 Conclusion**

Taxation stands to be one sustainable way in which revenue is generated by the Palestinian government. However, tax evasion challenges the ability of the government to maximise the generation of the revenue from taxation that could be used to fund the development plans. Therefore, improving taxation has become mandatory for Palestine to generate more revenue for its full potential, especially considering the current declining revenue experienced as a result of decreasing foreign aids. More than 30% of the Palestinian governmental income comes from foreign aids. It has therefore become vital to maximise the sources and collection of revenue in Palestine in order to solve the challenges. The central focus of the present study is the income tax of SMEs' taxpayers, considering their role as a significant source of tax revenue in Palestine. SMEs are recognized as a potential source of tax revenue generation although this is constrained by a high level of tax evasion. Hence, reducing tax evasion level of the SMEs can potentially increase the revenue generation by the government.

The current study developed a model that deemed to best explain tax evasion among the SMEs in Palestine. The model is underpinned and supported by Fischer model. The model involves factors from both economic (probability of detection, tax penalty, and tax rate) and non-economic perspectives (tax fairness, peer influence, corruption, and economic domination) that influence the tax evasion. The analysis of the surveyed data confirmed a significant and negative relationship of probability of detection, tax penalty, tax fairness, and peer influence on the income tax evasion and a significant and positive relationship of tax rate and the economic domination on the income tax evasion.

Furthermore, the current study investigated the moderation effect of the public spirit on the relationships between probability of detection, tax penalty, tax fairness, peer influence, tax rate, and corruption with income tax evasion. The moderating effect of public spirit was found to be significant and negative for the cases of probability of detection, tax penalty, and tax fairness on the income tax evasion. Hence, the study carried out the investigation of both the direct and the indirect relationships and developed its hypothesis accordingly.

Based on the stated objectives of the study, a quantitative survey method was used and the responses were collected from a sample of 500 SMEs using a questionnaire as an instrument. The valuable responses were analysed using the smart PLS-SEM. The findings supported the theoretical propositions. In spite of the few limitations of the present study, the findings have both theoretical and practical significance, and recommendations were suggested for future studies. Therefore, the present study has been able to effectively achieve its objectives in examining all the hypothesised relationships. Among the significant empirical contributions of the present study to the existing literature on tax evasion are the incorporation of the direct relationship of the economic domination and the examination of the moderating effect of the public spirit. Thus, it is expected that the findings of the current study will be of enormous importance and relevance to the tax authority in achieving one of its priorities in increasing the revenue generation, particularly among the Palestinian SMEs.

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#### Appendix A

#### **Research Questionnaire (English Version)**



Othman Yeop Abdullah Graduate School of Business Universiti Utara Malaysia 06010 UUM Sintok Kedah Darul Aman, Malaysia

Tel: (+604) 928 3930 / Fax: (+604) 928

5220

Email: oyagsb@uum.edu.my

Dear Manager,

I am Ph.D. student at the Universiti Utara Malaysia, currently preparing doctoral project on:

#### **INCOME TAX AMONG PALESTINIAN SMEs**

In Palestine, the economy is mostly dependent on tax revenue, which is a crucial item in the Palestinian public budget. In line with that, the government, through various initiatives, is strongly motivated to increase in tax revenue through understanding SMEs income tax.

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We appreciate your cooperation in making this research a success. This survey will take about 10 - 15 minutes. Please spare some of your valuable time to complete it. The responses to this questionnaire will be analysed for the academic purpose. Hence, the respondent's identity will remain confidential. Feel free to ask any query regarding the survey. In case if you want to see the final result of the research, feel free to contact the researcher.

Thank you for participating in this study

Researcher, Jabbar Amjad A. I. Alkhatib amjad@paluniv.edu.ps Supervisors: Assoc. Prof. Hijattulah Abdul-

Dr. Munusamy Marimuthu

PART A: DEMOG	RAP	PHIC INFORMATION	
Please place an $()$ in the block that rel	ates	to you.	
1. How long have your enterprise bec	en in	business:	
1) Less than 5 Years[	]	2) 5 to 10 Years	]
3) 11 to 15 Years[	]	4) 16 Years and above[	]
2. Please indicate the main business a	activ	ity of your enterprise in 2017:	
1) Trade [	]	2) Services [	]
3) Industry [	]	4) Construction [	]
3. Please indicate the number of emp	loye	es in your enterprise in 2017:	
1) 1 to 4 Employees[	]	2) 5 to 9 Employees	]
3) 10 to 19 Employees[	]	4) 20 Employees and above [	]
4. The annual turnover of your enter	pris	e in 2017 (USD/NIS) 1 USD = NIS 3.6	3:
1) Up to USD 20,000		2) USD 20,001 - 200,000	
(NIS 72,500)[	]	(NIS 72,501 – 725,000) [	]
3) USD 200,001 - 500,000 (NIS 725,001 - 1,813,200) [	]	4) USD 500,001 and above (NIS 1,812,201)[	]
5. The capital of your enterprise in 2	017	(USD/NIS) 1 USD = NIS 3.63:	
1) Up to USD 5,000	siti		]
3) USD 50,001 - 100,000 (NIS 181,001 – 362,000) [	]	4) USD 100,001 and above (NIS 362,001)[	]
6. What is your current position in the	he en	nterprise?	
1) Owner [	]	2) Manager [	]
3) Owner-Manager [	]	4) Others, please specify [	]
7. Which of the following describes t	he ty	pe of your enterprise ownership?	
1) Sole proprietorship[	]	2) Partnership[	]
3) Limited partnership[	]	4) Others, please specify [	]
8. Did your enterprise submitted tax	retu	rn for 2017?	
1) Yes[	]		
2) No.	1		

#### PART B: PERCEPTIONS AND OPINIONS

#### 1. Tax Evasion

Please indicate your level of agreement with each of the following statements by circling the appropriate number/answer next to each statement.

1: Strongly disagree

2: Disagree

3: Neutral

4: Agree

5: Strongly

agree

No	Items	1	2	3	4	5
1	It is acceptable not reporting selling or trading goods or services with a friend or neighbour in enterprise tax return.	1	2	3	4	5
2	Reporting an enterprise income fully, but not including a small amount of extra outside income.	1	2	3	4	5
3	It is acceptable to be paid cash for a job and then not reporting it in an enterprise tax return.	1	2	3	4	5
4	It is acceptable an enterprise not reporting some earnings from interest or investment that the tax administration would not be able to find out.	1	2	3	4	5
5	It is unacceptable to add a little bit more than you actually spend when reporting an enterprise expenses.	1	2	3	4	5
6	Since a lot of high earning enterprise taxpayers pay no taxes at all, if an enterprise underpays a little, it is not a big deal.	1	2	3	4	5
7	It is acceptable for an enterprise extending education expenses to include some expenses that are not really education expenses.	1	2	3	4	5
8	Tax rates are just too high, so it is not really cheating when an enterprise pay less tax then it is supposed to.	1	2	3	4	5
9	It is acceptable when an enterprise is not really sure whether or not it deserves a tax deduction, than it makes sense to take a chance and take a deduction anyway.	1	2	3	4	5
10	With what things cost these days, it is acceptable to cut a few corners on an enterprise tax return just to help pay the bills.	1	2	3	4	5
11	It is acceptable to hold back a little bit on an enterprise taxes since the government spends too much anyway.	1	2	3	4	5
12	When an enterprise deserves a deduction that the tax administration will not let it take, it makes sense to take it to some other place where they will not catch it.	1	2	3	4	5
13	It is acceptable to under-report a certain amount of an enterprise income since it does not really hurt anyone.	1	2	3	4	5
14	It is acceptable to cut corners a little on the taxes of an enterprise because chances of getting caught are very low.	1	2	3	4	5
15	It is all right to occasionally under-report certain income or claim an undeserved deduction if an enterprise is generally loyal and law-abiding.	1	2	3	4	5

#### 2. Probability of Detection

Please indicate your level of agreement with each of the following statements by circling the appropriate number/answer next to each statement.

1: Strongly disagree 2: Disagree 3: Neutral 4: Agree 5: Strongly agree

No	Items	1	2	3	4	5
1	There is a likelihood that the tax administration will detect if an enterprise does not report additional extra income.	1	2	3	4	5
2	In this age of information technology, the tax administration will detect if an enterprise does not report an extra income.	1	2	3	4	5
3	There is a chance of detection if an enterprise does not report an extra income.	1	2	3	4	5

### 3. Tax Penalty

Please indicate your level of agreement with each of the following statements by circling the appropriate number/answer next to each statement.

1: Strongly disagree 2: Disagree 3: Neutral 4: Agree 5: Strongly agree

No	UniItemssiti Utara Mala	y <b>l</b> si	2	3	4	5
1	Taking to court, paying a substantial penalty and the tax with interest will cause a problem for an enterprise.	1	2	3	4	5
2	Taking to court, paying the tax with interest will cause a problem for an enterprise.	1	2	3	4	5
3	Paying a substantial penalty and the tax with interest will cause a problem for an enterprise.		2	3	4	5
4	Paying the tax with interest will cause a problem for an enterprise.	1	2	3	4	5

#### 4. Tax Fairness

Please indicate your level of agreement with each of the following statements by circling the appropriate number/answer next to each statement.

1: Strongly disagree 2: Disagree 3: Neutral 4: Agree 5: Strongly agree

No	Items	1	2	3	4	5
1	For the average business taxpayers, I think that the income tax system is unfair.	1	2	3	4	5
2	I believe that the income tax system for businesses is unfair.	1	2	3	4	5
3	Generally, I consider it an unfair way in which the income tax burden is distributed across business taxpayers.	1	2	3	4	5
4	Generally, I feel that the income tax is a fair tax.	1	2	3	4	5
5	Overall, the burden of income taxes is fairly distributed.	1	2	3	4	5
6	Businesses not pay more than a fair share of the income tax burden.		2	3	4	5
7	The share of total income taxes paid by businesses is not too high.	1	2	3	4	5

#### 5. Peer Influence

Please indicate your level of agreement with each of the following statements by circling the appropriate number/answer next to each statement.

1: Strongly disagree 2: Disagree 3: Neutral 4: Agree 5: Strongly agree

No	Items	1	2	3	4	5
1	Most of the enterprises think they should honestly declare cash earnings on their tax return.				4	5
2	Most of the enterprises think it is unacceptable to overstate deductions on their tax return.	1	2	3	4	5
3	Most of the enterprises think that the tax they pay is fair given the services they get from the government.	1	2	3	4	5
4	Most of the enterprises prefer to pay taxes regardless of the size of services offered by the government.		2	3	4	5
5	Most of the enterprises think not paying income tax is a trivial offence.		2	3	4	5
6	Most of the enterprises think that the government conducts actions that encourage taxpayers to pay their taxes.	1	2	3	4	5

#### 6. Tax Rate

Please indicate your level of agreement with each of the following statements by circling the appropriate number/answer next to each statement.

1: Strongly disagree 2: Disagree 3: Neutral 4: Agree 5: Strongly agree

No	Items	1	2	3	4	5
1	The tax rate should be different for every enterprise according to their size (small, medium or large).	1	2	3	4	5
2	Large enterprises have a greater ability to pay income tax, so they should pay a higher rate more than small and medium.	1	2	3	4	5
3	High-profit enterprises should pay a higher rate of tax more than low-profit enterprises.	1	2	3	4	5

### 7. Corruption

Please indicate your level of agreement with each of the following statements by circling the appropriate number/answer next to each statement.

1: Strongly disagree 2: Disagree 3: Neutral 4: Agree 5: Strongly agree

No	UniItemssiti Utara Mala	y <b>l</b> si	2	3	4	5
1	It is common that an enterprise pays some irregular additional payments to get things done.	1	2	3	4	5
2	An enterprise needs to make extra, unofficial payments to public officials to get connected to public services.	1	2	3	4	5
3	An enterprise needs to make extra, unofficial payments to public officials to get licenses and permits.	1	2	3	4	5
4	An enterprise needs to make extra, unofficial payments to public officials to deal with taxes and tax collection.	1	2	3	4	5
5	An enterprise needs to make extra, unofficial payments to public officials to gain government contracts.		2	3	4	5
6	An enterprise needs to make extra, unofficial payments to public officials when dealing with customs/imports.	1	2	3	4	5

#### 8. Economic Domination

Please indicate your level of agreement with each of the following statements by circling the appropriate number/answer next to each statement.

1: Strongly disagree 2: Disagree 3: Neutral 4: Agree 5: Strongly agree

No	Items	1	2	3	4	5
1	Israeli economic constraints and administrative procedures cause obstacles for an enterprise to cooperate with tax administration and tax filing.	1	2	3	4	5
2	Israeli economic constraints imposes an extra burden on an enterprise tax matters.	1	2	3	4	5
3	Impact of Israeli economic constraints on an enterprise causes irregular payments connected with import and export permits, business licenses and tax assessments.	1	2	3	4	5

## 9. Public Spirit

Please indicate your level of agreement with each of the following statements by circling the appropriate number/answer next to each statement.

1: Strongly disagree 2: Disagree 3: Neutral

Neutral 4: Agree

5: Strongly

agree

No	UniItems siti Utara Mala	y <b>s</b> i	2	3	4	5
1	It is acceptable to be absent from work without reasonable reasons.	1	2	3	4	5
2	It is acceptable to be abstention from elections.	1	2	3	4	5
3	It is acceptable to take bribery at work.	1	2	3	4	5
4	It is acceptable to be not committed to traffic rules.	1	2	3	4	5
5	It is acceptable to buy stolen products.	1	2	3	4	5
6	It is acceptable to find a wallet and not giving it to the police.	1	2	3	4	5

Thank you for your cooperation

#### Appendix B

#### **Research Questionnaire (Arabic Version)**



Othman Yeop Abdullah Graduate School of Business Universiti Utara Malaysia 06010 UUM Sintok Kedah Darul Aman, Malaysia

Tel: (+604) 928 3930 / Fax: (+604) 928

5220

Email: oyagsb@uum.edu.my

السلام عليكم ورحمةُ الله وبركاتُه،

عزيزي المدير الفاضل,

أنا طالب دكتوراه في كلية Tunku Puteri Intan Safinaz للمحاسبة في جامعة Malaysia أقوم حالياً بإعداد أطروحة الدكتوراه تحت عنوان:

# ضريبه الدخل في المشاريع الصغيرة والمتوسطة الفلسطينية

تُعد الضريبة المورد المالي الرئيس للإيرادات في الموازنة العامة الفلسطينية. لذا فإن الحكومة ومن خلال مختلف المبادرات والفعاليات تشجع وتحاول بقوة زيادة الإيرادات الضريبية من خلال إفهام دافعي الضرائب لضريبة الدخل وخاصة الشركات الصغيرة والمتوسطة الحجم والتي تمثل عصب الإقتصاد الفلسطيني.

لذا يرجو الباحث مساعدتكم وتعاونكم في إنجاز هذه الدراسة. إذ تم اختياركم لأنكم تمثلون الشريحة المستهدفه في البحث. شاكراً لكم مشاركتكم ومنحكم وقتكم الثمين لتعبئة هذه الاستبانة. مؤكداً لكم أن إجابتكم سيتم التعامل معها بسرية تامة وللإستخدام الأكاديمي فقط.

# نشكر ونثمن تعاونكم وتقبلوا فائق تحياتي،

اسم الباحث: أمجد عبدالله إبر اهيم الخطيب

amjad@paluniv.edu.ps :ايميل

هاتف: 0060182167298

إشراف: أ.د. حجة الله عبد الجبار

د. مونوسامي ماري موثو

	ت الديمغرافية للمؤسسة	البيانان	القسم الأول:
		ة أدناه:	يرجى وضع إشارة ( $$ ) على الإجابة المناسبة
	2) من 5 - 10 سنوات		1. عمر منشأتكم: 1) أقل من 5 سنوات
L	4) من 16 فأكثر[	L	3) من 11- 15 سنة
			2. النشاط الرئيس لمنشأتكم في عام 2017:
	(2 خدمات	[	1) تجاري[
[	4) إنشاءات	[	3) صناعي
			3. عدد العاملين في منشأتكم في عام 2017:
]	2) 5 - 9 عاملين	[	1) 4 – 1 عاملين
]	4) 20 عاملاً فأكثر	[	19 – 10 عاملاً
يكل 3.63:	. <i>الشيقل)</i> ، حيث أن سعر الدولار مقابل الش	لدو لار أو	4. الدخل السنوي لمنشأتكم في عام 2017 (با
	2) 200,000 – 20,001 دو لار		<ol> <li>لغاية 20,000 دو لار</li> </ol>
	] (مينقل 725,000 – 72,501 شيقل)	[	1 (72,500 شيقل )
]	4) 500,001 دو لار فأكثر (1,812,201 شيقك)	[	3) 200,001 – 500,000 دو لار (1,813,200 – 725,001 شيقِل) [
:3.6	قِل)، حيث أن سعر الدولار مقابل الشيكل 3	ِ أو <i>الشي</i> ا	5. رأس مال منشأتكم في عام 2017 (بالدولار
1	2) 50,000 – 50,001 دو لار [ 181,000 – 18,001 شيقك) [	Uta	1) لغاية 5,000 دولار 5,000 (1 (18,000 شيقل)
[	4) 100,001 دو لار فأكثر (362,001 شى <u>ق</u> ل)	[	30,000 – 50,001 دو لار [ 181,001 –362,000 شيقِل )
			6. طبيعة عملك في المنشأة:
[	2) مدير [	[	1) مالك
]	4) أخرى، الرجاء ذكرها [	[	3) ماڭ-مدير
		منشاتكم؟	7. أي نوع من الأنواع الآتية تعبر عن ملكية ،
]	2) تضامن (شراكة عامة)	[	1) ملكية فردية[
[	4) أخرى، الرجاء ذكرها [	[	3) توصية بسيطة
		<b>? 201</b>	8. هل قدمت منشأتكم الإقرار الضريبي لعام 7
			1) نعم(1
		[	] ½ (2

# القسم الثاني: التوجهات والآراء

أرجو قراءة العبارات الآتية بعناية وتدبر، والإشارة إلى الإجابة التي تعبر عن رأيك عن طريق وضع دائرة حول الرقم/الإجابة المناسبة بجوار كل عبارة:

1: غير موافق بشدة 2: غير موافق 3: محايد 4: موافق 5: موافق بشدة

موافق بشدة	موافق	محايد	غیر موافق	غیر موافق بشدة	<b>لإفصاح عن الدخل والنفقات:</b> وهو استعداد ورغبة المكلف الإفصاح عن دخله الحقيقي.	1 (1
5	4	3	2	1	من المقبول للمنشأة عدم الإفصاح عن أرباح ناتجة عن أعمال تجارية مع الأصدقاء و الجيران.	1
5	4	3	2	1	من المقبول أن يتم استثناء مبالغ ضئيلة من دخل ثانوي إضافي عند الإفصاح عن الدخل الكلي للمنشأة.	2
5	4	3	2	1	من المقبول تقاضي مبلغ نقدي مقابل عمل ولا يتم الإفصاح عنه في الإقرار الضريبي للمنشأة.	3
5	4	3	2	1	من المقبول أن لا تقوم المنشأة بالإفصاح عن بعض أرباح الفوائد والاستثمارات التي لا تستطيع دائرة الضريبة اكتشافه.	4
5	4	3	2	1	من غير المقبول إضافة القليل من النفقات عند الإفصاح عن نفقات المنشأة الفعلية.	5
5	4	3	2	1	من المقبول أن تقوم المنشأة باقتطاع القليل من الضرائب، إذا كان أصحاب الدخل المرتفع لا يدفعون الضرائب مطلقاً.	6
5	4	3	2	1	من المقبول للمنشأة التوسع في نفقات التعليم والتي لا تعتبر من ضمن نفقات التعليم الفعلية.	7
5	4	3	2	Uni	من المقبول للمنشأة تقليل المدفوعات الضريبية الحقيقية عندما يكون معدل الضريبة مرتفعاً.	8
5	4	3	2	1	من المقبول أن لا تفصح المنشأة عن جزء معين من الدخل عندما تكون غير متأكدة من أنها تستحق خصماً ضريبياً أم لا.	9
5	4	3	2	1	من المقبول أن تقتطع المنشأة جزءاً من الإيرادات في الإقرار الضريبي للمساهمة في دفع بعض تكاليف الحياة اليومية المرتفعة.	10
5	4	3	2	1	من المقبول عدم الإفصاح عن بعض إيرادات المنشأة، لأن نفقات الحكومة تنفق بطريقة عشوائية.	11
5	4	3	2	1	من المقبول إخفاء بعض إيرادات المنشأة، عندما لا تُمنَح خصماً ضريبياً مستحقاً من دائرة الضريبة.	12
5	4	3	2	1	من المقبول عدم الإفصاح عن بعض إير ادات المنشأة، في حال عدم إلحاق الأذى بالآخرين.	13
5	4	3	2	1	من المقبول عدم الإفصاح عن بعض إيرادات المنشأة، عندما تكون فرص الكشف عن التلاعب في الإقرار الضريبي من قبل دائرة الضريبة منخفضة للغاية.	14
5	4	3	2	1	من المقبول عدم الإفصاح عن بعض إيرادات المنشأة أو المطالبة بإعفاء غير مستحق، إذا كانت المنشأة ملتزمة بالقانون بصفة عامة.	15

موافق بشدة	موافق	محايد	غیر موافق	غير موافق بشدة	لتدقيق من قبل دائرة الضريبة: هو احتمال فحص الوثائق والقوائم المالية للمكلف.	1 (2
5	4	3	2	1	هناك احتمال أن تقوم دائرة الضريبة باكتشاف ما إذا كانت المنشأة لا تفصح عن دخل إضافي في الإقرار الضريبي.	1
5	4	3	2	1	مع تطور تكنولوجيا المعلومات، أصبح لدى دائرة الضريبة القدرة على اكتشاف ما إذا كانت المنشأة لا تفصح عن دخل إضافي.	2
5	4	3	2	1	هناك فرصة للكشف عن بعض الإيرادات الإضافية التي لم تفصح عنها المنشأة.	3
موافق بشدة	موافق	محايد	غیر موافق	غیر موافق بشدة	العقوبات الضريبية: هي الجزاءات والغرامات المفروضة على على المتهرب من دفع الضريبة.	(3
5	4	3	2	1	يؤدي اكتشاف التهرب الضريبي واللجوء إلى المحكمة ودفع غرامة مالية كبيرة ومبلغ الضريبة مع الفوائد، إلى حدوث مشكلة للمنشأة.	1
5	4	3	2	1	يؤدي اكتشاف التهرب الضريبي واللجوء إلى المحكمة ودفع مبلغ الضريبة مع الفوائد، إلى حدوث مشكلة للمنشأة.	2
5	4	3	2	1	يؤدي اكتشاف التهرب الضريبي ودفع غرامة مالية كبيرة ومبلغ الضريبة مع الفوائد، إلى حدوث مشكلة للمنشأة.	3
5	4	3	2	1	يؤدي اكتشاف التهرب الضريبي ودفع مبلغ الضريبة مع الفوائد، إلى حدوث مشكلة للمنشأة.	4
موافق بشدة	موافق	محايد	غیر موافق	غیر موافق بشدة	لعدالة الضريبية: وهي تشير إلى مدى عدالة قانون ضريبة الدخل بالنسبة للمكلفين.	(4
5	4	3	2	1	أعتقد أن نظام ضريبة الدخل غير عادل بالنسبة لمعظم دافعي الضرائب من المنشآت.	1
5	4	3	2	1	أعتقد شخصياً أن نظام ضريبة الدخل على المنشآت غير عادل.	2
5	4	3	2	1	بشكل عام، أعتقد أن الطريقة التي يتم بها توزيع عبء ضريبة الدخل على المنشآت غير عادل.	3
5	4	3	2	1	أشعر أن ضريبة الدخل هي الضريبة العادلة.	4
5	4	3	2	1	بشكل عام، يتم توزيع عبء الضرائب على الدخل بشكل عادل.	5
5	4	3	2	1	لا تدفع المنشآت أكثر من حصتها العادلة من عبء ضريبة الدخل.	6
5	4	3	2	1	الحصة التي تدفعها المنشآت من إجمالي الضرائب على الدخل ليست عالية جداً.	7
موافق بشدة	موافق	محايد	غیر موافق	غیر موافق بشدة	<b>أثير الأقران:</b> وهو مدى تأثّر المكلف بسلوك المكلفين الآخرين عند دفع الضريبة.	<b>5</b> (5
5	4	3	2	1	تعتقد معظم المنشآت أنه يجب الإفصاح بأمانة عن كامل الأرباح في الإقرار الضريبي.	1
5	4	3	2	1	تعتقد معظم المنشآت أنه من غير المقبول المبالغة في النفقات في الإقرار الضريبي.	2
5	4	3	2	1	تعتقد معظم المنشآت أن الضرائب التي يدفعونها عادلة، مقارنة بالخدمات التي يحصلون عليها من الحكومة.	3

5	4	3	2	1	تفضل معظم المنشآت دفع الضرائب، بغض النظر عن حجم الخدمات المقدمة من الحكومة.	4
5	4	3	2	1	تعتقد معظم المنشآت أن عدم دفع ضريبة الدخل هو جريمة تافهة.	5
5	4	3	2	1	تعتقد معظم المنشآت أن الحكومة تقوم بأعمال تشجع دافعي الضرائب على الالتزام بدفع ضرائبهم.	6
موافق بشدة	موافق	محايد	غیر موافق	غیر موافق بشدة	معدل الضريبة: يشير إلى العدالة في معدل الضريبة بالنسبة للمستفية للمستقل المنشآت وأرباحها.	6 (6
5	4	3	2	1	معدل الضريبة يجب أن يكون مختلف من منشأة لأخرى حسب حجمها (صغيرة أو متوسطة أو كبيرة).	1
5	4	3	2	1	لدى المنشآت الكبيرة القدرة على دفع ضريبة الدخل، لذلك يجب أن يدفعوا معدل ضريبة أعلى من المنشآت الصغيرة والمتوسطة الحجم.	2
5	4	3	2	1	المنشآت ذات الربحية العالية يجب أن تدفع معدل ضرائب أعلى من المنشآت ذات الربحية المنخفضة.	3
موافق بشدة	موافق	محايد	غیر موافق	غیر موافق بشدة	لقساد في القطاع العام: يشير إلى إعطاء رشوة للموظفين الحكوميين لإنجاز أمر معين.	1 (7
5	4	3	2	1	من الشائع أن تقوم المنشأة بدفع مبالغ إضافية غير قانونية لإنجاز بعض الأمور في القطاع العام.	1
5	4	3	2	1	تحتاج المنشأة لدفع مبالغ إضافية غير قانونية لموظفي القطاع العام للحصول على خدمات عامة.	2
5	4	3	2	Uni	تحتاج المنشأة لدفع مبالغ إضافية غير قانونية لموظفي القطاع العام للحصول على التراخيص والتصاريح.	3
5	4	3	2	1	تحتاج المنشأة لدفع مبالغ إضافية غير قانونية لموظفي القطاع العام للحصول على تسهيلات ضريبية.	4
5	4	3	2	1	تحتاج المنشأة لدفع مبالغ إضافية غير قانونية لموظفي القطاع العام للحصول على عقود حكومية.	5
5	4	3	2	1	تحتاج المنشأة لدفع مبالغ إضافية غير قانونية لموظفي القطاع العام عند التعامل مع الجمارك والاستيراد.	6
موافق بشدة	موافق	محايد	غیر موافق	غیر موافق بشدة	لسيطرة الاقتصادية: وهي أثر القيود الاقتصادية الإسرائيلية على المكلفين الفلسطينيين.	8) (8
5	4	3	2	1	تسبب القيود الاقتصادية والإجراءات الإدارية للاحتلال الإسرائيلي عقبة مهمة في تعاون المنشأة مع دائرة الضريبة والالتزام الضريبي.	1
5	4	3	2	1	تفرض القيود الاقتصادية للاحتلال الإسرائيلي عبئاً إضافياً على الأمور المتعلقة بالمسائل الضريبية للمنشأة.	2
5	4	3	2	1	إن تأثير القيود الاقتصادية للاحتلال الإسرائيلي على المنشأة يسبب مدفوعات غير نظامية مرتبطة بتصاريح الاستيراد والتصدير، وتراخيص الأعمال والتقديرات الضريبية.	3

وافق بشدة	موافق	محايد	غیر موافق	غير موافق بشدة	<b>لروح العامة:</b> وهي حب العمل للصالح العام.	11 (9
5	4	3	2	1	من المقبول التغيب عن العمل دون أسباب معقولة.	1
5	4	3	2	1	من المقبول الإمتناع عن التصويت في الانتخابات.	2
5	4	3	2	1	من المقبول أخذ الرشوة في العمل.	3
5	4	3	2	1	من المقبول عدم الالتزام بقواعد المرور.	4
5	4	3	2	1	من المقبول شراء منتجات مسروقة.	5
5	4	3	2	1	من المقبول العثور على محفظة وعدم إعطائها للشرطة.	6

# شكراً لكم على حسن تعاونكم



# Appendix C

# **Missing Values**

TE	TE1	TE2	TE3	TE4	TE5	TE6	TE7	TE8	TE9
No. Valid	184	185	184	184	184	185	185	184	184
No. Missing	1	0	1	1	1	0	0	1	1

TE	<b>TE10</b>	TE11	TE12	TE13	<b>TE14</b>	<b>TE15</b>
No. Valid	185	184	184	184	185	185
No. Missing	0	1	1	1	0	0

POD	POD1	POD2	POD3
No. Valid	184	184	184
No. Missing	1	1	1

TP	TP1	TP2	TP3	TP4
No. Valid	183	184	184	183
No. Missing	2	1	1	2

TF	TF1	TF2	TF3	TF4	TF5	TF6	TF7
No. Valid	185	184	185	184	185	184	185
No. Missing	0	1	0	1	0	1	0

PI	PI1	PI2	PI3	PI4	PI5	PI6
No. Valid	183	184	185	183	184	185
No. Missing	2	1	- 0	2	1	0
100	237	O.	IVE	SELI	<b>Argi</b>	a m

TR	TR1	TR2	TR3
No. Valid	183	185	184
No. Missing	2	0	1

CO	CO1	CO2	CO3	CO4	CO5	CO6
No. Valid	184	184	184	184	185	185
No. Missing	1	1	1	1	0	0

ED	ED1	ED2	ED3
No. Valid	184	184	184
No. Missing	1	1	1

PS	PS1	PS2	PS3	PS4	PS5	PS6
No. Valid	184	184	183	185	183	185
No. Missing	1	1	2	0	2	0

Appendix D
Univariate Outliers

No.	TE	POD	TP	TF	PI	TR	CO	ED	PS
1	0.213	-0.541	-0.538	-0.705	-0.892	0.353	1.321	0.976	0.787
2	0.650	-0.541	-0.105	-0.559	-1.245	0.658	1.917	0.976	1.611
3	-0.078	-0.541	0.543	-0.414	-0.715	0.962	-0.865	0.976	1.281
4	-0.078	-0.541	-1.402	1.043	-0.892	0.962	-0.865	0.660	0.787
5	-0.950	0.380	-0.105	-0.559	-0.892	-1.171	-1.064	-1.242	0.292
6	-0.078	-0.541	-0.105	0.752	-0.539	0.353	-0.667	0.343	0.787
7	-0.514	-0.234	0.111	0.023	-1.421	-1.171	1.718	1.293	0.952
8	0.795	-0.541	-0.754	1.189	-0.010	-1.171	-1.859	-0.291	-1.687
9	-0.659	0.380	1.191	0.460	-0.186	-2.086	-0.070	-0.608	0.457
10	-0.514	-0.848	1.191	1.043	-0.010	-1.171	-0.269	-1.242	-1.193
11	-0.101	-0.541	1.191	1.189	1.225	0.658	-0.468	-1.242	1.281
12	1.904	2.223	1.407	1.626	-0.363	-2.086	-0.667	0.343	-1.193
13	-0.659	-1.155	1.191	1.626	0.519	-2.086	0.327	-0.608	-1.028
14	-0.223	1.302	-0.970	1.319	0.343	-1.171	-0.667	0.026	-1.687
15	-0.805	1.302	1.191	1.009	0.343	-1.171	0.128	-0.181	-1.522
16	-0.074	1.302	0.305	1.480	0.519	1.267	-0.468	-0.291	-1.193
17	-0.369	1.916	1.407	1.480	-0.539	-1.171	-1.263	-1.875	-0.698
18	0.795	0.687	1.407	1.480	0.696	-2.086	-0.468	-1.242	-0.698
19	0.037	1.916	-0.970	1.480	0.696	-1.476	0.526	0.026	-1.028
20	0.068	1.916	1.191	1.334	-0.186	-2.086	0.724	-1.242	-1.522
21	-0.805	1.609	1.623	1.480	1.225	-2.086	-0.667	-1.242	0.622
22	-0.659	-1.155	1.407	0.752	-0.010	-1.171	-0.865	-0.291	-1.687
23	-0.078	-0.848	0.975	-0.851	-1.068	1.267	-1.263	-2.192	-1.522
24	0.504	-0.541	-0.105	1.771	-0.575	0.048	-0.070	0.660	0.787
25	1.231	-0.848	-0.970	-0.705	0.696	-1.171	-1.263	1.293	0.622
26	0.650	0.073	-0.786	-0.414	-1.597	0.446	-0.667	-0.925	0.292
27	0.940	-0.541	-0.754	0.023	1.578	-2.086	-0.667	0.660	0.952
28	-0.078	-0.848	-0.970	1.189	1.402	-1.171	-1.660	0.026	0.539
29	0.359	0.073	0.759	-0.559	1.049	-1.171	-1.263	0.343	1.611
30	0.213	-0.848	1.191	-1.288	1.225	0.962	-0.269	0.026	0.457
31	-0.078	0.687	-0.970	-1.288	1.225	0.962	-0.070	-0.608	0.193
32	-0.223	-0.541	0.111	0.752	1.225	-0.257	-0.667	0.660	0.457
33	1.668	-0.681	-0.754	0.752	-1.597	0.353	-0.468	0.660	0.952
34	0.795	-0.541	-0.754	-1.433	-1.597	0.962	-1.263	-1.558	0.952
35	0.504	-0.848	-0.970	-0.996	-1.245	0.962	-0.667	-1.558	-1.193
36	0.504	-0.848	0.543	-0.996	-0.892	-1.476	-0.070	-1.558	-1.357
37	1.086	-1.462	-1.402	1.043	-1.950	0.658	0.128	-1.558	-1.357
38	0.359	0.380	-0.970	-1.433	-0.892	0.658	0.128	-1.242	1.446
39	0.213	-1.155	-1.186	-0.001	-0.539	-1.476	-0.070	-1.242	0.622
40	0.940	-1.462	-1.186	-1.142	-1.245	0.658	-1.064	-1.875	1.446
41	0.504	1.302	-0.970	-0.268	-0.186	-0.866	-0.468	-0.291	0.952

		continue		(DE	DI	TD	00	ED	DC
No.	TE	POD	TP	TF	PI	TR	CO	ED	PS
42	0.650	-0.541	-0.754	-0.122	-1.068	0.658	-0.269	0.343	1.446
43	0.940	-1.462	-0.538	-0.414	-1.068	1.572	0.526	0.660	1.446
44	-1.096	0.380	0.111	0.023	-1.068	-1.171	-0.667	0.026	0.457
45	-0.078	-1.155	0.975	1.626	1.578	-1.171	0.724	0.026	-1.687
46	0.504	2.223	0.975	-1.142	1.578	-1.171	0.526	0.660	0.787
47	0.213	-0.541	1.839	-1.288	-1.245	-1.171	-0.468	-0.925	0.787
48	-0.078	1.302	1.839	-1.142	-0.010	0.962	1.917	0.749	0.952
49	0.068	-0.234	-0.754	-0.268	-0.715	0.353	-1.859	-2.192	0.457
50	0.213	-1.155	-1.402	0.169	0.519	0.048	2.116	-2.192	0.952
51	1.668	-0.848	-0.970	-1.433	-1.068	0.048	-1.859	-2.192	-0.203
52	1.668	-1.155	1.407	-0.705	-0.012	-1.171	1.122	1.610	0.292
53	0.795	-0.541	-0.754	-1.142	-0.186	-0.257	1.321	0.976	0.292
54	0.795	-0.541	0.543	0.897	-0.363	-1.078	1.321	-1.242	0.292
55	-0.078	-0.541	0.975	0.023	-0.186	0.048	0.526	0.976	1.281
56	0.504	-0.541	-0.754	0.752	0.696	0.962	-1.859	1.610	0.457
57	1.231	-1.462	-0.970	0.460	0.696	1.267	-0.667	1.293	-0.368
58	0.213	-1.155	1.839	1.043	0.343	0.658	0.724	0.660	0.952
59	1.522	-0.234	-1.186	-1.725	-0.539	-0.257	-1.263	1.293	1.446
60	0.213	-1.462	1.839	-0.851	1.049	0.962	1.122	0.976	0.622
61	0.359	-0.541	-0.754	0.460	-0.892	0.962	-0.865	-0.608	-0.368
62	0.940	-1.462	-1.402	1.043	0.343	1.267	-0.077	1.293	-0.368
63	0.213	-0.541	-1.402	0.460	-0.363	-2.086	0.526	1.293	-1.687
64	-0.078	0.380	1.839	1.626	-0.186	1.267	0.327	0.026	-1.687
65	0.213	-0.541	1.407	0.315	-0.186	0.962	-1.263	1.293	-1.852
66	0.504	-0.234	0.543	1.043	0.343	-0.562		0.976	0.292
67	0.359	0.380	-0.970	0.315	-0.715	0.353	-0.070	-1.242	-1.357
68	0.795	1.609	0.975	0.752	0.872	0.048	-1.064	-2.192	0.292
69	1.086	-0.541	-0.970	-0.268	-0.363	0.048	0.128	0.976	0.952
70	1.231	0.380	-0.754	1.480	0.167	-0.257	-0.865	0.660	0.457
71	-0.078	-0.541	-0.970	1.626	0.167	0.353	1.122		0.457
72	0.068	-0.541	0.111	1.626	1.049	-0.257	-0.667	0.660	0.292
73	1.231	-0.848	0.737	-0.851	0.167	-1.781	-0.865	1.293	1.117
74	1.377	1.916	0.975	1.189	-0.010	0.962	0.923	-2.192	-1.357
75	0.940	-1.155	0.975	-0.996	-0.010	0.962	-0.269	-1.558	0.952
76	-0.223	0.380	0.975	0.752	0.696	0.962	-0.269	-0.925	0.622
77	0.213	-0.848	-0.970	-0.414	-0.892	-0.866	-0.865	-1.242	0.787
78	0.795	0.380	-1.186	1.480	0.696	-2.086	1.321	-1.242	-1.852
79	0.940	-0.541	-1.402	-1.142	-0.186	0.962	0.724	-1.242	0.787
80	-2.405	0.687	0.975	-0.414	0.872	-1.171	-0.468	-1.242	-1.193
81	-3.277	-0.541	0.975	1.480	1.402	-2.086	-1.461	-1.558	-1.522
82	0.504	-0.848	-0.754	1.334	-0.010	0.658	0.526	0.976	-1.687
83	0.068	0.073	-0.105	-0.705	-1.421	-0.257	-1.660	0.976	1.281
84	0.637	-1.462	0.975	-1.288	-0.715	1.267	-1.263	1.610	0.622
85	-0.392	0.073	-0.754	-0.851	-0.570	0.962	-0.667	-1.242	0.622

No.	TE	POD	TP	TF	PI	TR	CO	ED	PS
86	0.068	2.223	0.727	-0.996	0.167	-0.562	-0.468	-1.242	-1.852
87	-0.369	2.223	0.975	-1.142	0.872	0.353	0.724	-1.242	0.622
88	-0.223	0.380	-0.754	-0.851	0.696	0.048	-0.070	-0.291	-0.368
89	0.940	2.223	-1.186	-1.288	0.696	0.962	0.724	-0.291	1.117
90	0.068	2.223	-0.754	-0.705	-0.186	0.658	0.526	-0.291	0.952
91	-0.950	0.380	-0.105	-0.268	-0.010	-0.866	0.886	-0.291	0.622
92	0.650	-0.848	0.975	0.169	0.167	0.962	1.917	-0.291	-0.038
93	1.377	-0.234	-1.186	-0.851	-1.421	0.658	-0.468	-0.291	0.127
94	-0.514	-0.541	0.975	-1.579	0.872	-0.257	-1.859	-0.291	-0.368
95	-0.514	-0.541	0.975	-0.705	0.167	1.267	-0.865	-0.925	0.457
96	-0.078	-0.541	0.975	-0.996	-0.010	1.267	-1.263	0.660	-1.193
97	-0.369	0.380	-0.322	-0.851	0.343	0.658	-0.667	-0.291	-1.193
98	1.086	-0.848	-1.402	-0.851	-1.245	0.962	2.116	0.343	1.117
99	-0.078	0.380	-0.105	0.023	0.519	0.353	0.327	0.343	0.457
100	0.795	-1.462	0.111	-0.705	-0.010	0.962	0.327	-1.875	0.457
101	-0.078	-0.541	0.975	-1.579	-0.186	0.962	0.526	-1.875	0.457
102	0.359	-0.848	0.975	-1.288	0.167	0.658	1.122	-1.558	0.539
103	0.213	-0.848	0.975	0.169	-0.363	-1.171	-0.269	0.343	0.457
104	0.213	-0.541	-0.970	-0.559	0.872	0.658	0.923	0.976	0.457
105	-0.223	-1.462	-0.754	-0.268	-0.186	0.658	0.923	-0.291	-0.203
106	0.795	-0.848	0.728	-0.851	-0.539	0.658	1.519	0.026	-0.368
107	-0.369	-1.155	-0.970	-0.122	0.519	0.658	0.923	0.343	-1.522
108	0.795	-0.541	0.975	-0.996	-0.539	1.267	0.327	0.026	0.457
109	-0.659	-1.155	-1.402	0.897	-0.715	0.048	-0.070	-0.925	-1.324
110	0.940	-1.462	-1.186	0.315	-0.892	0.962	1.321	1.293	1.281
111	0.213	0.380	-1.186	0.023	-0.539	0.353	0.526	0.343	-0.203
112	-2.405	0.073	-0.754	0.169	-1.245	-1.171	0.923	-1.242	-1.357
113	-3.277	-0.541	-0.970	1.189	1.402	-1.171	-1.064	-1.242	-2.182
114	0.940	0.380	-0.970	0.023	-1.597	0.353	-0.865	0.026	0.622
115	1.522	0.380	-1.186	-0.559	0.696	1.572	-0.667	-0.608	0.952
116	0.504	-0.234	0.975	-1.288	-1.421	-1.476	1.519	0.343	0.209
117	-0.223	0.073	0.975	-0.559	-1.774	0.962	-0.667	0.976	0.622
118	-1.096	0.687	0.975	-0.559	0.872	0.353	-0.468	0.026	-0.203
119	0.048	-0.541	0.975	-0.705	-1.597	0.962	1.917	0.660	-2.017
120	-0.078	-0.541	-0.754	0.023	-1.421	1.267	-0.667	0.976	1.117
121	-0.078	-0.541	-0.754	1.189	1.402	0.353	0.923	0.026	0.952
122	0.650	1.609	-0.970	1.480	1.049	0.658	-1.263	0.660	0.292
123	0.213	1.609	-0.105	1.480	1.578	0.353	0.327	0.343	-1.522
124	-0.514	1.609	-0.754	-0.996	-1.774	0.353	-0.865	0.976	-2.017
125	0.359	0.380	-0.970	-0.851	-1.245	-0.866	1.718	0.660	-1.852
126	-0.078	-1.155	-0.559	-0.414	1.402	0.048	0.327	0.976	-1.357
127	-0.950	0.995	-0.538	-0.414	1.402	0.048	-1.064	-0.291	0.292
128	-1.823	0.995	1.191	0.169	-0.010	-1.171	0.724	0.026	0.457
129	0.213	-0.541	0.975	-0.851	-0.539	0.353	-0.865	0.976	0.787

	1	continue		(DE)	DI	(TID)	00	ED	TDC .
No.	TE	POD	TP	TF	PI	TR	CO	ED	PS
130	-0.659	-0.848	1.191	0.752	1.754	-0.257	0.724	0.976	0.292
131	0.068	0.073	1.191	-1.142	-1.421	-0.866	0.923	0.343	-1.357
132	-0.950	0.380	-0.754	0.023	0.167	-0.562	-0.269	-0.291	-0.203
133	0.359	-0.541	0.543	0.315	0.872	0.353	-0.070	0.660	0.127
134	-0.950	0.687	0.975	0.315	-0.010	0.719	-0.667	0.026	-0.368
135	0.359	-0.848	0.975	-0.414	-0.186	0.048	-0.269	0.976	-0.203
136	-0.514	0.380	-0.105	0.023	-0.010	0.048	-0.070	0.026	0.622
137	-0.659	0.380	-1.618	-0.705	0.519	-0.257	-0.865	-0.291	0.622
138	-0.078	-0.541	0.975	-0.851	0.696	1.267	-0.667	0.660	0.787
139	-0.805	0.380	0.111	0.023	1.049	-0.257	0.724	0.660	-1.357
140	-1.096	0.380	-0.105	0.752	0.343	0.048	-0.070	1.610	0.292
141	0.068	1.302	-0.105	-0.705	-1.068	0.353	0.724	0.660	1.446
142	0.068	0.876	-0.970	0.169	-0.363	-0.257	-0.865	0.660	-1.193
143	1.377	0.687	-1.402	0.897	1.049	0.353	-0.865	0.976	0.622
144	0.359	0.380	0.975	-0.705	-0.744	0.962	-0.865	0.660	-1.687
145	-0.369	1.302	0.975	0.169	1.931	1.267	-0.070	0.343	0.457
146	0.213	-0.541	0.975	-0.705	-0.892	-0.562	-1.461	0.660	0.292
147	-0.659	0.380	0.111	-1.433	0.872	0.962	-1.660	0.026	-0.038
148	-0.369	-0.541	1.839	1.480	1.225	0.962	0.128	0.976	-0.863
149	0.795	-0.541	-0.754	-0.559	-1.245	0.962	1.122	0.976	0.127
150	0.795	-1.155	-0.970	-0.705	-1.245	0.658	1.122	0.660	0.127
151	-3.423	1.302	0.975	1.043	2.284	-2.086	-1.263	0.976	1.611
152	-2.405	1.916	0.975	1.043	1.225	-0.562	1.321	-1.242	0.457
153	0.359	-0.541	-0.754	-0.559	0.343	0.962	1.122	0.343	1.281
154	0.940	-0.848	-1.186	-0.705	1.754	0.353	0.327	0.660	0.622
155	0.504	0.380	-0.970	-0.705	0.696	0.353	1.295	-0.608	-1.522
156	0.068	-0.541	1.839	-0.705	0.519	0.658	1.519	-0.291	0.292
157	0.650	-0.541	-1.186	-1.288	-0.539	-0.257	1.297	0.660	0.457
158	-0.391	0.380	-0.754	-0.705	1.578	0.048	0.526	0.660	-0.698
159	-0.369	1.609	0.111	1.917	1.754	-0.257	0.526	0.026	-0.203
160	0.359	-0.541	0.975	-0.851	0.519	0.658	0.327	0.026	0.952
161	-0.369	0.380	-0.970	1.771	1.402	1.267	1.122	0.756	-0.203
162	-0.078	-0.234	-0.322	0.606	-0.010	-1.476	0.526	0.343	0.622
163	-0.659	-0.541	-0.754	-0.268	-0.010	0.353	0.526	-0.291	-0.038
164	-0.369	-0.541	1.839	-0.122	-1.068	0.658	1.122	0.660	0.787
165	0.068	1.302	-0.754	1.917	1.225	-1.171	-1.263	0.976	0.622
166	-2.405	1.609	0.975	1.189	1.931	-1.171	-1.660	-1.242	0.292
167	-3.277	2.223	0.975	1.771	1.931	-0.257	-0.468	-2.192	0.622
168	-1.096	1.302	-0.105	1.043	1.578	-0.257	-0.070	0.660	-0.203
169	-0.369	1.302	-0.105	1.043	1.578	0.658	0.327	1.610	0.787
170	-0.223	0.380	-0.538	1.626	1.402	0.353	0.923	0.660	-0.368
171	-5.895	-1.462	-1.618	-1.725	-1.950	-2.086	-2.455	-2.192	-2.347
172	-0.514	-1.155	0.111	0.169	-0.010	0.962	1.519	0.660	-0.863
173	0.504	-0.848	0.975	-0.996	-0.539	-1.171	1.122	1.293	0.457

No.	TE	POD	TP	TF	PI	TR	CO	ED	PS
174	0.213	0.687	-0.970	-0.705	-0.715	-1.171	1.321	0.976	-0.615
175	0.068	-0.541	0.975	1.334	-1.245	-1.171	-1.064	-0.291	-0.698
176	-1.096	0.380	0.975	0.169	1.754	-1.171	-1.263	-0.291	-0.203
177	-1.096	0.995	-0.105	-0.122	-1.597	0.962	-1.064	-0.291	0.292
178	-0.078	1.302	-1.618	1.917	-1.068	0.962	1.321	0.343	0.127
179	-0.223	1.916	0.975	1.043	-0.224	0.353	0.724	1.293	0.457
180	0.359	0.264	-0.754	-1.433	-1.068	0.353	0.526	0.343	0.127
181	-0.514	1.302	-1.402	-1.288	-1.068	0.658	1.122	0.343	0.292
182	0.359	2.223	0.975	-0.996	-0.363	0.658	1.122	0.343	0.787
183	0.650	-0.541	-0.754	-0.996	-1.421	-0.866	0.923	1.610	-1.852
184	-0.078	-0.541	-0.754	-1.288	-1.245	0.658	1.122	0.660	0.787
185	0.650	-0.541	-0.754	-1.288	-0.892	1.572	1.519	0.660	-2.017



### Appendix E

# **Table of Chi-square Statistics**

# **Table of Chi-square statistics**

#### t-statistics

F-statistics with other P-values: P=0.05 | P=0.01 | P=0.001

df	P = 0.05	P = 0.01	P = 0.001
1	3.84	6.64	10.83
2	5.99	9.21	13.82
3	7.82	11.35	16.27
4	9.49	13.28	18.47
5	11.07	15.09	20.52
6	12.59	16.81	22.46
7	14.07	18.48	24.32
8	15.51	20.09	26.13
9	16.92	21.67	27.88
10	18.31	23.21	29.59
11	19.68	24.73	31.26
12	21.03	26.22	32.91
13	22.36	27.69	34.53
14	23.69	29.14	36.12
15	25.00	30.58	37.70
16	26.30	32.00	39.25
17	27.59	33.41	40.79
18	28.87	34.81	42.31
19	30.14	36.19	43.82
20	31.41	37.57	45.32
21	32.67	38.93	46.80
22	33.92	40.29	48.27
23	35.17	41.64	49.73
24	36.42	42.98	51.18
25	37.65	44.31	52.62
26	38.89	45.64	54.05
27	40.11	46.96	55.48
28	41.34	48.28	56.89
29	42.56	49.59	58.30
30	43.77	50.89	59.70
31	44.99	52.19	61.10
32	46.19	53.49	62.49
33	47.40	54.78	63.87
34	48.60	56.06	65.25

Appendix F

Mahalanobis Distance

No.	Value								
1	3.650	42	4.274	83	9.077	124	17.456	165	9.775
2	7.823	43	6.246	84	10.976	125	11.490	166	9.055
3	5.359	44	4.256	85	4.326	126	9.669	167	14.097
4	8.076	45	11.179	86	12.477	127	5.472	168	4.252
5	5.092	46	13.891	87	11.292	128	4.623	169	7.479
6	3.433	47	10.358	88	3.463	129	4.798	170	5.788
7	10.423	48	11.859	89	12.768	130	7.129	171	27.672
8	8.559	49	9.077	90	8.667	131	9.036	172	5.585
9	6.843	50	19.313	91	2.961	132	1.310	173	8.123
10	6.770	51	10.847	92	7.068	133	2.079	174	8.105
11	9.945	52	9.919	93	3.607	134	3.354	175	8.955
12	13.807	53	4.899	94	10.469	135	3.320	176	5.977
13	10.733	54	8.323	95	5.478	136	0.604	177	7.711
14	7.250	55	4.086	96	9.859	137	5.764	178	15.228
15	5.562	56	10.042	97	4.962	138	5.657	179	9.403
16	8.502	57	8.315	98	8.479	139	4.795	180	3.566
17	12.695	58	9.402	99	0.871	140	3.452	181	8.150
18	7.538	59	10.250	100	8.324	141	6.956	182	10.285
19	8.679	60	10.856	101	8.840	142	5.462	183	12.137
20	12.011	61	4.522	102	8.701	143	6.525	184	4.104
21	10.783	62	8.934	103	4.295	144	9.940	185	12.030
22	8.234	63	12.513	104	4.775	145	7.943	cia	
23	13.732	64	13.372	105	4.015	146	6.344	310	
24	7.338	65	13.472	106	4.556	147	8.906		
25	9.721	66	3.383	107	7.312	148	10.470		
26	4.608	67	5.021	108	3.713	149	3.843		
27	11.860	68	9.039	109	7.174	150	3.991		
28	9.573	69	2.732	110	8.389	151	14.782		
29	8.104	70	4.784	111	2.334	152	9.660		
30	7.832	71	6.776	112	7.414	153	4.302		
31	8.215	72	4.801	113	11.770	154	9.137		
32	3.394	73	10.670	114	5.779	155	8.637		
33	7.493	74	15.319	115	6.895	156	7.761		
34	8.820	75	7.836	116	10.392	157	5.497		
35	7.776	76	4.950	117	8.702	158	7.704		
36	8.566	77	6.299	118	3.399	159	6.672		
37	14.406	78	13.994	119	13.226	160	3.538		
38	7.108	79	6.900	120	6.895	161	9.508		
39	8.678	80	5.983	121	7.142	162	4.440		
40	11.516	81	11.759	122	9.235	163	1.432		
41	5.481	82	8.011	123	8.334	164	8.207		

Appendix G

Total Variance Explained

Total Variance Explained										
Components.		Initial Eigenval	ues	Extractio	n Sums of Squar	red Loadings				
Components	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %				
1	2.250	25.004	25.004	2.250	25.004	25.004				
2	1.144	12.713	37.717	1.144	12.713	37.717				
3	1.070	11.894	49.611	1.070	11.894	49.611				
4	0.985	10.944	60.554	0.985	10.944	60.554				
5	0.902	10.027	70.581	0.902	10.027	70.581				
6	0.777	8.636	79.217	0.777	8.636	79.217				
7	0.696	7.735	86.952	0.696	7.735	86.952				
8	0.644	7.154	94.105	0.644	7.154	94.105				
9	0.531	5.895	100.000	0.531	5.895	100.000				

Extraction Method: Principal Component Analysis.

