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**DETERMINANTS OF SALES TAX COMPLIANCE AMONG  
JORDANIAN SMEs: THE MODERATING EFFECT OF  
PUBLIC GOVERNANCE**



**DOCTOR OF PHILOSOPHY  
UNIVERSITI UTARA MALAYSIA  
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**DETERMINANTS OF SALES TAX COMPLIANCE AMONG JORDANIAN  
SMEs: THE MODERATING EFFECT OF PUBLIC GOVERNANCE**



Thesis Submitted to  
**Tunku Puteri Intan Safinaz School of Accountancy (TISSA-UUM),**  
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**in Fulfilment of the Requirement for the Degree of Doctor of Philosophy**



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**SCHOOL OF ACCOUNTANCY**  
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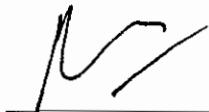
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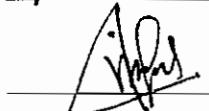
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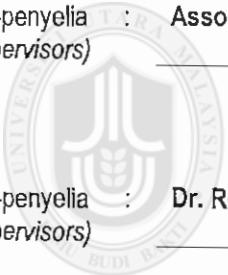
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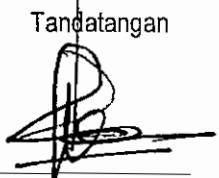
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## ABSTRACT

Tax compliance leads to reducing the fiscal deficit and public debt, thereby it provides funding to satisfy the economic and social development. Despite the extensive government's efforts, the compliance of sales tax (typically known as value added tax globally) among the Small and Medium-sized Enterprises (SMEs) in Jordan is relatively low, thus, it negatively impacts the government revenues. Previous studies regarding the determinants of sales tax compliance among SMEs are limited and somewhat inconsistent. Therefore, the present study aimed at extending Fischer's model that is built on the integration of both economic and socio-psychological theories in the context of sales tax compliance as well as examining the moderating role of the public governance and patriotism as a new construct to have better understanding on the determinants of sales tax compliance. This study hypothesised eight factors affecting sales tax compliance, as well as eight hypotheses on the moderating effects of public governance on such relationships. Using the quantitative approach, this study employed a self-administered questionnaire survey of 660 owner-managers of SMEs listed in the Jordan Chamber of Industry of which 212 responses were usable for analysis purpose. The Partial Least Squares (PLS) results revealed positive influence of tax audit, tax penalty, tax moral, tax fairness and patriotism on sales tax compliance and a negative effect of tax complexity on sales tax compliance respectively. Meanwhile, peer influence and tax rate do not demonstrate any significant influence on sales tax compliance. The findings also ascertained the considerable moderating effect of the public governance on the associations between tax audit, tax penalty, and peer influence on sales tax compliance. Besides extending the body of knowledge by providing a comprehensive model to explain how several interrelated factors influence sales tax compliance, the results offer insights on the determinants of sales tax compliance among SMEs.

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**Keywords:** sales tax compliance, value added tax, SMEs, public governance, patriotism.

## ABSTRAK

Pematuhan cukai dapat mengurangkan defisit fiskal dan hutang negara. Justeru, kerajaan hendaklah menyediakan dana secukupnya bagi memenuhi pembangunan ekonomi dan sosial. Walaupun kerajaan telah melaksanakan pelbagai usaha dan pematuhan cukai jualan (lazimnya dikenali sebagai cukai nilai tambah di peringkat global) dalam kalangan Perusahaan Kecil dan Sederhana (PKS) di Jordan, namun ia masih berada pada tahap yang rendah, dan keadaan ini memberi kesan negatif kepada hasil kerajaan. Kajian terdahulu tentang penentu pematuhan cukai jualan dalam kalangan PKS adalah terhad dan tidak konsisten. Oleh itu, tujuan kajian ini dilaksanakan adalah untuk memperluaskan model Fischer yang dibina dengan mengintegrasikan kedua-dua teori ekonomi dan sosio-psikologi dalam konteks pematuhan cukai jualan. Kajian ini juga menguji peranan tadbir urus awam sebagai penyederhana dan patriotisme sebagai pemboleh ubah baharu untuk menjelaskan dan memahami pematuhan cukai jualan. Kajian ini menguji lapan hipotesis yang mempengaruhi pematuhan cukai jualan, dan juga lapan hipotesis bagi menguji kesan penyederhana tadbir urus awam terhadap hubungan tersebut. Kajian ini menggunakan kaedah soal selidik ke atas 660 pemilik pengurus PKS yang tersenarai dalam Dewan Perniagaan Jordan dengan mengaplikasi pendekatan kuantitatif. Sebanyak 212 maklum balas dapat digunakan untuk tujuan analisis kajian. Hasil ujian dengan menggunakan kaedah *Partial Least Squares* (PLS) menunjukkan bahawa pengaruh positif audit cukai, penalti cukai, moral cukai, keadilan cukai dan patriotisme terhadap pematuhan cukai jualan, dan hubungan negatif antara kerumitan cukai dan pematuhan cukai jualan. Manakala faktor rakan sebaya dan kadar cukai tidak menunjukkan sebarang hubungan yang signifikan terhadap pematuhan cukai jualan. Penemuan ini juga menunjukkan kesan penyederhana tadbir urus awam terhadap perkaitan antara audit cukai, penalti cukai, dan pengaruh rakan sebaya terhadap pematuhan cukai jualan. Selain daripada memperluaskan bidang pengetahuan dengan menyediakan model komprehensif bagi menjelaskan bagaimana beberapa faktor saling berkaitan yang mempengaruhi pematuhan cukai jualan, hasil kajian juga memberikan gambaran tentang penentu-penentu pematuhan cukai jualan dalam kalangan PKS.

**Kata kunci:** pematuhan cukai jualan, cukai nilai tambah, PKS, tadbir urus awam, patriotisme.

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## TABLE OF CONTENTS

<b>TITLE PAGE .....</b>	<b>i</b>
<b>CERTIFICATION OF THESIS WORK .....</b>	<b>ii</b>
<b>PERMISSION TO USE .....</b>	<b>iv</b>
<b>ABSTRACT .....</b>	<b>v</b>
<b>ABSTRAK.....</b>	<b>vi</b>
<b>ACKNOWLEDGEMENT .....</b>	<b>vii</b>
<b>TABLE OF CONTENTS.....</b>	<b>viii</b>
<b>LIST OF TABLES .....</b>	<b>xi</b>
<b>LIST OF FIGURES .....</b>	<b>xiii</b>
<b>LIST OF APPENDICES.....</b>	<b>xiv</b>
<b>LIST OF ABBREVIATIONS .....</b>	<b>xv</b>
<b>CHAPTER ONE INTRODUCTION .....</b>	<b>1</b>
1.1 Background of Study.....	1
1.1.1 Severity of Shadow Economy in Jordan.....	5
1.1.2 Significance of Sales Tax Revenue in Jordan.....	7
1.1.3 Significance of Small and Medium Enterprises in Jordan .....	8
1.2 Problem Statement .....	10
1.3 Research Questions .....	15
1.4 Research Objectives .....	16
1.5 Contribution of the Study .....	16
1.6 Scope of the Study .....	20
1.7 Organization of the Study.....	21
<b>CHAPTER TWO SALES TAX AND SMALL AND MEDIUM ENTERPRISES IN JORDAN.....</b>	<b>23</b>
2.1 Introduction .....	23
2.2 Tax System in Jordan .....	23
2.2.1 Income Tax Law .....	24
2.2.2 Sales Tax Law .....	27
2.3 Small and Medium Enterprises.....	32
2.4 Summary of the Chapter.....	35
<b>CHAPTER THREE LITERATURE REVIEW.....</b>	<b>37</b>
3.1 Introduction .....	37
3.2 Tax Compliance Theories.....	37
3.2.1 Deterrence Theory.....	38
3.2.2 Socio-Psychological Theory .....	41
3.3 Review of Tax Compliance Studies.....	52
3.3.1 Income Tax Compliance Studies among SMEs Worldwide .....	53
3.3.2 Income Tax Compliance Studies in Middle East and Arab Countries.....	62
3.3.3 Income Tax Compliance Studies in Jordan .....	67
3.3.4 Sales Tax Compliance Studies Worldwide.....	72
3.4 Tax Compliance .....	79
3.5 Determinants of Tax Compliance .....	83
3.5.1 Tax Complexity.....	84
3.5.2 Tax Audit .....	87
3.5.3 Tax Rate.....	90

3.5.4 Tax Penalty .....	92
3.5.5 Tax Moral .....	94
3.5.6 Tax Fairness .....	98
3.5.7 Peer Influence .....	101
3.5.8 Patriotism .....	104
3.5.9 Public Governance .....	108
3.5.10 Demographic Variables .....	114
3.6 Summary of the Chapter.....	118
<b>CHAPTER FOUR METHODOLOGY.....</b>	<b>119</b>
4.1 Introduction .....	119
4.2 Research Framework.....	119
4.3 Hypotheses Development.....	122
4.3.1 Tax Complexity and Sales Tax Compliance.....	123
4.3.2 Tax Audit and Sales Tax Compliance .....	124
4.3.3 Tax Rate and Sales Tax Compliance.....	125
4.3.4 Tax Penalty and Sales Tax Compliance .....	125
4.3.5 Tax Moral and Sales Tax Compliance .....	126
4.3.6 Tax Fairness and Sales Tax Compliance .....	127
4.3.7 Peer Influence and Sales Tax Compliance .....	128
4.3.8 Patriotism and Sales Tax Compliance .....	129
4.3.9 The Moderating Role of Public Governance .....	130
4.4 Research Design.....	134
4.4.1 Nature of the Study.....	135
4.4.2 Unit of Analysis .....	135
4.4.3 Research Approach.....	136
4.4.4 Population and Sample Frame .....	138
4.4.5 Sample Size.....	140
4.4.6 Data Collection Procedures .....	142
4.5 4.5 Operational Definition and Measurement of Variables .....	144
4.5.1 Measurement of Tax Complexity.....	144
4.5.2 Measurement of Tax Audit .....	145
4.5.3 Measurement of Tax Rate.....	146
4.5.4 Measurement of Tax Penalty .....	147
4.5.5 Measurement of Tax Moral .....	148
4.5.6 Measurement of Tax Fairness .....	149
4.5.7 Measurement of Peer Influence .....	150
4.5.8 Measurement of Patriotism .....	151
4.5.9 Measurement of Public Governance .....	152
4.5.10 Measurement of Sales Tax Compliance .....	154
4.6 Questionnaire Design, Translation and Validity.....	156
4.7 Pilot Study .....	159
4.8 Data Analysis Techniques .....	161
4.9 Summary of the Chapter.....	165
<b>CHAPTER FIVE DATA ANALYSIS AND RESULTS .....</b>	<b>166</b>
5.1 Introduction .....	166
5.2 Response Rate.....	166
5.3 Data Screening and Preliminary Analysis .....	168
5.3.1 Missing Data Analysis.....	168

5.3.2 Outliers Identification and Treatment .....	170
5.3.3 Normality Test .....	172
5.3.4 Multicollinearity Test .....	174
5.3.5 Non-Response Bias Test.....	175
5.4 Descriptive Statistics .....	178
5.4.1 Descriptive Statistics of SMEs.....	178
5.4.2 Analysis of Descriptive Statistics for the Latent Constructs .....	185
5.5 Assessment of PLS-SEM Path Model Results .....	184
5.5.1 Assessment of Measurement Model.....	185
5.5.2 Assessment of Structural Model .....	202
5.6 Summary of the Chapter.....	222
<b>CHAPTER SIX DISCUSSION AND CONCLUSION .....</b>	<b>224</b>
6.1 Introduction .....	224
6.2 Overview of the Results .....	224
6.3 Discussion.....	226
6.3.1 First Research Objective.....	227
6.3.2 Second Research Objective .....	241
6.4 Implications of Research.....	254
6.4.1 Theoretical Implications .....	254
6.4.2 Practical Implications .....	258
6.5 Limitations and Future Research .....	263
6.6 Conclusion .....	265
<b>REFERENCES .....</b>	<b>266</b>



## LIST OF TABLES

Table 1.2 Proportion of Tax in the Shadow Economy of Jordan, 2005-2010.....	6
Table 1.2 Jordanian Domestic Revenue, 2011-2016 .....	7
Table 1.3 Jordanian Tax Revenue, 2011-2016.....	8
Table 1.4 Jordanian SMEs and Large Enterprises, 2012 .....	8
Table 2.1 Income Tax on Individuals in Jordan, 2014-2017 .....	25
Table 2.2 Income Tax on Jordanian Companies and Enterprises, 2014-2017.....	26
Table 2.3 Goods and Services Subject to Special Tax.....	28
Table 2.4 General Sales Tax Rate in Jordan .....	29
Table 2.5 Annual Thresholds for Sales Tax Registration .....	30
Table 2.6 Classification of Small and Medium Enterprises.....	33
Table 3.1 Approaches to Tax Compliance .....	50
Table 3.2 Summary of the Relevant Tax Compliance Theories .....	52
Table 4.1 Measurement of Tax Complexity.....	145
Table 4.2 Measurement of Tax Audit .....	146
Table 4.3 Measurement of Tax Rate.....	147
Table 4.4 Measurement of Tax Penalty .....	148
Table 4.5 Measurement of Tax Moral .....	149
Table 4.6 Measurement of Tax Fairness .....	150
Table 4.7 Measurement of Peer Influence .....	151
Table 4.8 Measurement of Patriotism.....	152
Table 4.9 Measurement of Public Governance .....	153
Table 4.10 Measurement of Sales Tax Compliance .....	155
Table 4.11 Variables Measurements and Sources .....	156
Table 4.12 Reliability of the Instrument in the Pilot Study .....	160
Table 5.1 Summary of Data Collection and Responses Received .....	167
Table 5.2 Total and Percentage of Missing Values.....	170
Table 5.3 Multivariate Outlier Detected and Removed .....	171
Table 5.4 Results of Skewness and Kurtosis for Normality Test .....	173
Table 5.5 Multicollinearity Assessments Using Tolerance and VIF .....	175
Table 5.6 Test of Non-Response Bias.....	177
Table 5.7 Respondent SMEs by Number of Years in Operation.....	179
Table 5.8 Distribution of Respondent SMEs Based on Annual Sales Turnover .....	179
Table 5.9 Distribution of Respondent SMEs According to Employees Number....	180
Table 5.10 Respondent SMEs According to Type of Main Manufacturing .....	181
Table 5.11 Respondent SMEs According to a Registration in the Sales Tax .....	182
Table 5.12 Respondents' Position .....	183
Table 5.13 Educational Qualifications.....	183
Table 5.14 Analysis of Descriptive Statistics for the Latent Constructs .....	186
Table 5.15 Loadings and Cross Loadings (Before Deletion) .....	189
Table 5.16 Loadings and Cross Loadings (After Deletion) .....	192
Table 5.17 Cronbach's Alpha and Composite Reliability of the Construct.....	196
Table 5.18 Average Variance Extracted of the Constructs .....	197
Table 5.19 AVE Square Root (Correlations among Constructs) .....	199
Table 5.20 Discriminant Validity Assessment using Indicators Loadings and Cross Loadings.....	199
Table 5.21 Variance Explained in the Endogenous Latent Construct .....	203
Table 5.22 Effect Sizes of the Exogenous Latent Variables on Endogenous Latent Variable.....	206

Table 5.23 Construct Cross-Validated Redundancy .....	207
Table 5.24 Result of Hypotheses Testing (Direct Relationship).....	209
Table 5.25 Result of Hypotheses Testing (Moderating Effect).....	214
Table 5.26 Effect Sizes of the Moderator .....	220
Table 5.27 Summary of Hypotheses Testing (Direct Relationship).....	221
Table 5.28 Summary of Hypotheses Testing (Moderating Effect).....	222
Table 6.1 Summary of Objectives and Hypotheses.....	225



## LIST OF FIGURES

Figure 1.1 Tax Non-compliance and Tax Revenue in Jordan from 2011 -2015.....	12
Figure 3.1 Deterrence Theory Model.....	39
Figure 3.2 Fischer Tax Compliance Model.....	51
Figure 4.1 Research Framework for Sales Tax Compliance.....	122
Figure 5.1 The Two-Step Process of PLS Path Model Assessment .....	184
Figure 5.2 R-square Value of the Model.....	204
Figure 5.3 PLS Bootstrapping for the Study Structural Model: Direct Hypotheses	211
Figure 5.4 The Interaction Effect between Public Governance and Tax Audit .....	215
Figure 5.5 The Interaction Effect between Public Governance and Tax Penalty ...	216
Figure 5.6 The Interaction Effect between Public Governance and Peer influence	217
Figure 5.7 PLS Bootstrapping for the Study Structural Model: Indirect Hypotheses .....	219



## LIST OF APPENDICES

Appendix A The Questionnaire in English .....	326
Appendix B The Questionnaire in Arabic .....	334
Appendix C Summary of Income Tax Compliance Studies among SMEs Worldwide, 2000-2017 .....	342
Appendix D Summary of Income Tax Compliance Studies in Middle East and Arab Countries, 1977- 2016.....	346
Appendix E Summary of Income Tax Compliance Studies in Jordan, 1994-2016.	351
Appendix F Summary of Sales Tax Compliance Studies Worldwide, 1995-2016.	354
Appendix G Six Stages of Moral Reasoning.....	357
Appendix H Differences between Good and Bad Governance .....	358
Appendix I Replace Missing Values .....	360
Appendix J Outlier (Mahalanobis) Test.....	361
Appendix K Normality Test.....	361
Appendix L Mean Test .....	362



## LIST OF ABBREVIATIONS

ABJ	Association of Banks in Jordan
ACI	Amman Chamber of Industry
CA	Cronbach's Alpha
CR	Composite Reliability
DOS	Department of Statistics
EU	European Union
GDP	Gross Domestic Product
GST	General Sales Tax
GST	Goods and Services Tax
ISTD	Income and Sales Tax Department
IBP	International Business Publications
JIEW	Jordan Independent Economic Watch
JESC	Jordan Economic and Social Council
JCI	Jordan Chamber of Industry
JIC	Jordan Investment Commission
MOF	Ministry of Finance
MIT	Ministry of Industry and Trade
MYR	Malaysia Ringgits
OECD	Organization for Economic Cooperation and Development
USAID	United States Agency for International Development
USD	United States Dollars
SMEs	Small and Medium Enterprises
SST	Special Sales Tax
SPSS	Statistical Package for Social Sciences
VAT	Value Added Tax
VIF	Variance Inflation Factor
PLS-SEM	Partial Least Squares Structural Equation Modeling
YEA	Young Entrepreneur Association
ZCI	Zarka Chamber of Industry



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# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of Study

The economic growth and development of any country typically depends on how much revenue has been collected. Taxes remain as one of the major components in managing the national revenue in both developed and developing countries (Gangl, Torgler, Kirchler & Hofmann, 2014), which are afflicted by an extensive tax non-compliance (Schneider, Buehn & Montenegro, 2010). Countries aim at spending more money on developing the health services, public infrastructure, and education. Therefore, they need to increase their tax revenue as a proportion of Gross Domestic Product (GDP) if they want to develop and grow (Bird, Martinez-Vazquez & Torgler, 2008). Therefore, governments should have sufficient revenue (Frey & Torgler, 2007).

Tax revenue collection has become a significant issue, particularly after the world economic crisis of 2008, the upward trend of fiscal deficits and net public debt have raised the need for consideration of tax revenue, so countries have turned toward universal collaboration to combat tax non-compliance (Slemrod, 2016; Sawyer, 2014). Therefore, tax non-compliance is a serious and growing problem in all economies (Alm, Bloomquist & McKee, 2017; Alm, Clark & Leibel, 2016; Gangl, Hofmann & Kirchler, 2015), particularly in developing world (Rosid, Evans & Tran-Nam, 2017; Palil, 2016; Bird, 2015; Gangl, Kirchler, Lorenz & Torgler, 2015), and more especially in Jordan (Alasfour, 2017).

Tax compliance also remains a prime concern for all countries (Mascagni, 2017; Kogler, Muehlbacher & Kirchler, 2013; Alm & Torgler, 2011). The increase in tax revenue lies in the efforts to encourage tax compliance behaviour (Franzoni, 1999). Determining the drivers of tax compliance is considered one of the main concerns of governments (Doerrenberg, 2015; Alm, 2012). Thus, this issue demands to be addressed from various perspectives (Finocchiaro & Ilde, 2014; McGee & Benk, 2011), and is always an interesting research area (Puspitasari & Meiranto, 2014; Abdul-Jabbar & Pope, 2008). Yet, no consensus exists on what precisely influences the willingness to pay taxes (Randlane, 2016; Castro & Scartascini, 2015), which appears to differ from country to country (Palil, Hamid & Hanafiah, 2013). Therefore, as long as taxation exists problems will be associated with tax compliance.

The past 30 years witnessed that the industrialized economies gradually shifting their emphasis from direct taxation to indirect tax as a revenue-raising tool (Matthews, 2003), such as sales tax and customs duties. Sales tax<sup>1</sup> typically known as a value added tax (VAT) or goods and services taxes (GST) worldwide. All members of the European Union (EU) have a VAT, as well as some countries, like Malaysia, Singapore and Australia, have goods and services taxes (GST). VAT was introduced for the first time in France in 1954 (Adams & Webley, 2001). Currently, either sales tax or VAT are applied in around 160 countries across the world (Azmi, Sapiei, Mustapha & Abdullah, 2016a; Ramli, Palil, Hassan & Mustapha, 2015). In more than

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<sup>1</sup> It is important to note that sales tax in the Jordanian context is referring to VAT or GST elsewhere. Thus, caution should be made when referring to sales tax context in other countries.

120 countries, the sales tax is the main source of government revenue, affecting about four billion people (Alm & El-Ganainy, 2012). Sales tax is perceived to be highly effective in terms of tax revenue due to its ability to generate high revenue that, meanwhile, reduces deficits (Chan, Ramly & Karim, 2017; Lee, Kim & Borcherding, 2013). For example, Brazil, Argentina, Venezuela and Uruguay collect approximately 70%, 65%, 60% and 52% of tax revenue from VAT respectively (Smith, 2017). Among EU countries, VAT plays the most significant role as the source of budget income in Portugal, Poland, Greece, Ireland and Hungary ranges from 40% to 64% of the total revenues (Dobrowolska, 2008). Sales taxes as seen as crucial in providing a tax revenue base for governments, particularly in developing countries, due to their wide coverage (Faridy, Freudenberg, Sarker & Copp, 2016; Huang & Rios, 2016; George & Reddy, 2015). Therefore, sales tax is now the most prevalent form of consumption tax system applied in most countries (Giesecke & Tran, 2012).

Sales tax non-compliance, that is more pervasive in the developing countries (Keen & Smith, 2007), remains a central issue; therefore, a need arises to reduce it (Lee, 2016). Sales tax compliance has also been an issue for policy makers across the world (Das-Gupta & Gang, 2003), and non-compliance activities regarding sales tax have caused great losses to governments (Miskama, Noorb, Omarc & Abd Aziz, 2015). In European countries, the level of VAT non-compliance is equivalent to 16% of VAT tax revenue. However, in developing countries, non-compliance is much higher; for example, in Latin America, VAT tax non-compliance has reached an average of 31%. Furthermore, in Jordan, the problem is even worse. A rough

estimate conducted by the International Monetary Fund (IMF) found that the sales tax evasion is higher than the average in Latin America and more than double the level of European countries (IMF, 2016). Thus, like any other tax, the sales tax is vulnerable to fraud and evasion. To date, research on taxation has strongly concentrated on income tax compliance. Meanwhile, sales tax compliance has received scant attention (Olsen, Kogler, Stark & Kirchler, 2017). A comprehensive list of tax compliance research prepared by James and Edwards (2010) revealed that only 19 of the 819 published tax compliance studies pertained to sales tax.

Sales tax compliance activities are considered more of a burden on small and medium enterprises (SMEs) compared to other types of taxation (Hansford & Hasseldine, 2012). Besides, SMEs form a significant portion of the taxpayer population of any country around the world (Swistak, 2015). Therefore, their compliance with tax payments directly influences the collection of tax revenues by government (Maseko, 2014). Unfortunately, SMEs around the globe are often characterized by tax non-compliance (Pope & Abdul-Jabbar, 2008). SMEs are considered to be the main contributors in the shadow economy in developing countries (Arachi & Santoro, 2007), particularly in Jordan ( See sub-section 1.1.1). Unlike larger businesses, they are usually owner-operated businesses, hence highly responsive to personal, social factors (e.g., Swistak, 2015). Thus, the taxation of SMEs has attracted increasing interest in developing and developed countries since early 2000.

Tax compliance of SMEs requires special interest, so that the issue of an overwhelming number of SMEs that do not fulfil their tax compliance duties should be addressed (Swistak, 2015). SMEs tax non-compliance is a critical issue for governments. Yet, the determinants that effects SMEs tax non-compliance have not been investigated sufficiently in the tax literature (Abdixhiku, Krasniqi, Pugh & Hashi, 2017). Empirical findings on the factors affecting tax compliance of SMEs are somewhat mixed, which is suggestive of a vast problem of compliance behaviour by SMEs owner-managers (Battisti & Deakins, 2017).

Like many others countries, taxation and SMEs play important roles in the growth of Jordanian economy; however, the magnitude of shadow economy in Jordan indicates a serious challenge. The severity of the shadow economy, the significance of sales tax revenue and the significance of SMEs sector to Jordan are briefly highlighted in the following sub-sections as a basis of the current study.

### **1.1.1 Severity of Shadow Economy in Jordan**

Tax non-compliance exists in both the formal economy and shadow economy, but tax non-compliance in the shadow economy is higher because all activity takes place in an unofficial manner. This means that a business may not just avoid paying taxes but also may not even not be registered as an official enterprise (Schneider, Raczkowski & Mróz, 2015). If a shadow economy is high, then tax non-compliance can be high (Cooray, Dzhumashev & Schneider, 2017). Factors determining tax non-compliance will most certainly also influence the shadow economy (Schneider &

Buehn, 2018). Thus, minimizing the shadow economy would likely mitigate tax non-compliance as well, especially from the informal sector (Palil, 2016). Indirect taxation and SMEs are two major factors in a shadow economy (Schneider, 2017; Murphy, 2012).

In the context of Jordan, SMEs are the main contributors in the shadow economy, contributing 90% of total shadow economy in 2012 (United Nations Development Programme [UNDP], 2012). Recent Jordanian estimates of shadow economy estimate the contribution of the shadow economy as being from 25% to 26% of GDP in 2015 and in 2016 respectively (Rawashdeh, 2017; Jordanian Economic and Social Council [JESC], 2014). However, it is noticeable that the estimates of the shadow economy for the past four years, specifically from 2011 to 2014, are not available. Nonetheless, much earlier data for shadow economy in Jordan for the period between 2005 and 2010 showed a similar increasing trend, rising from 19.2% in 2005 to 22.1% in 2010 (Alkhoudour, 2011). In the same vein, as shown in Table 1.1, the proportion of indirect tax as a percentage of shadow economy shows a consistently higher contribution, i.e., in the range of 70% to 76% of shadow economy in Jordan from 2005 to 2010. Although no official data are available from 2011 to 2016, the same increasing trend is likely to have happened.

Table 1.1  
*Proportion of Tax in the Shadow Economy of Jordan, 2005-2010*

Years	2005	2006	2007	2008	2009	2010
Indirect tax	76.1%	73%	72.9%	73.5%	69.6%	76.2%
Direct tax	23.9%	27%	27.1%	26.5%	30.4%	23.8%
Total	100%	100%	100%	100%	100%	100%

Source: Alkhoudour (2011)

### 1.1.2 Significance of Sales Tax Revenue in Jordan

Jordan relies largely on taxes for its revenue, which contributed around 70% of the domestic revenue during the period 2011 to 2016, as shown in Table 1.2. The second highest source was pension contributions and other revenues, which accounted for about 30% of the average revenue for the six-year period of total domestic revenue generated.

Table 1.2  
*Jordanian Domestic Revenue, 2011-2016*

	2011	2012	2013	2014	2015	2016
Tax revenue <sup>a</sup>	3,062.2	3,351.4	3,652.5	4,037.1	4,096.8	4,254.3
	(73%)	(71%)	(71.3%)	(67%)	(70%)	(68%)
Pension contribution and other revenue <sup>a, b</sup>	1,136.7	1,375.5	1,467.4	1,994	1,813.8	1,979.3
	(27%)	(29%)	(28.7%)	(33%)	(30%)	(32%)
Total domestic revenue <sup>a</sup>	4,198.9	4,726.9	5,119.8	6,031.1	5,910.6	6,233.6
	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)

Notes: <sup>a</sup> Amount stated in JD million, percentage is indicated in the parenthesis.

<sup>b</sup> Other revenue includes land registration, revenue stamps, interests, financial surplus, mining revenues and repayments.

Exchange rate JD1 = RM5.5; US\$1.41.

Source: Ministry of Finance (2017)

Tax revenue in Jordan is based mainly on direct taxes (income tax) and indirect taxes (sales tax and customs tax), with a strong bias towards indirect taxes, especially sales tax. Table 1.3 presents the tax revenue for the Jordanian economy for the period from 2011 to 2016. It is evident that sales taxes in Jordan contribute significantly towards tax revenue, which contributed around 68% of tax revenue for the same period. In short, the Jordanian government is moving consistently towards sales tax as a key source of government revenue.

Table 1.3  
*Jordanian Tax Revenue, 2011-2016*

	2011	2012	2013	2014	2015	2016
Sales tax <sup>a</sup>	2,033.2	2,274.7	2,532.9	2,811.4	2,779.9	2,883.8
	(66.4%)	(67.9%)	(69.3%)	(69.6%)	(67.9%)	(67.7%)
Income tax <sup>a</sup>	742	791.1	794.6	898.4	983.5	1,059.5
	(24.2%)	(23.6%)	(21.8%)	(22.3%)	(24%)	(25%)
Custom tax <sup>a</sup>	287	285.6	324.9	327.3	333.5	311
	(9.4%)	(8.5%)	(8.9%)	(8.1%)	(8.1%)	(7.3%)
Total tax revenue <sup>a</sup>	3,062.3	3,351.4	3,652.4	4,037.1	4,096.8	4,254.3
	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)

Notes: <sup>a</sup> Amount stated in JD millions, percentage is indicated in the parenthesis.

Exchange rate JD1 = RM5.5; US\$1.41.

Source: MOF (2017)

### 1.1.3 Significance of Small and Medium Enterprises in Jordan

This section highlights the importance of the SME sector in Jordan. SMEs have strategic significance in the national economy because of their major contribution in terms of exports, output and employment (Lutfi, Idris & Mohammad, 2016; Al-Hyari, Al-Weshah & Alnsour, 2012). The number of total business in Jordan is shown in Table 1.4:

Table 1.4  
*Jordanian SMEs and Large Enterprises, 2012*

Business Size	Employees Category	Total	Percentage
SMEs	1-249	156,482	99.85
Large	≥ 250	246	0.15
Total		156,728	100.0

Source: Department of Statistics, Jordan (2012)

Table 1.4 shows that SMEs represent more than 99% of all enterprises in the national economy in Jordan. SMEs also contributed around 50% of the GDP, and employ approximately 60% of the total workforce (Association of Banks in Jordan [ABJ], 2016; Alrai, 2015; Hawamda, 2014). SMEs would also make a large contribution to tax revenue if they pay their taxes (Al-Mahrouq, 2010).

In terms of tax revenue, the annual report of the MOF publishes sales tax collection records by general categories of goods and services (for example, imported goods, domestic goods, and services), and income tax, general categories of taxpayer (for example, salaried employees, individuals and companies) and not by size of the businesses. However, the tax authority reported that most taxes come from large companies comprising around three-quarters of the total tax revenues and the remaining taxes come from SMEs (Income and Sales Tax Department [ISTD], 2016), suggesting low tax revenues from SMEs comparatively. Judging from the UNDP (2012) report on the informal economy in Jordan, the low percentage of tax revenues from SMEs sector is likely due to its high contributions to the shadow economy. The recent report also indicates that SMEs are supposed to be a large contributor in tax revenue in Jordan (Aldustur, 2017), but their contributions to tax revenue have been low due to their tax evasion, which consistently indicates the significant of SMEs sector.

## 1.2 Problem Statement

Despite the different fiscal measures undertaken by the Jordan government to increase domestic revenue in recent decades such as the development of the national economy, achieving financial stability, increasing economic growth rates and increasing investment, annual reports have asserted that Jordan has still suffered from a sharp rise in net public debt (Obeidat, 2015). The debt grew to 65.4% of GDP in 2011, and, in 2016, was 94.9% of Jordan's GDP, which, at that time, stood at JD 27,520 billion (MOF, 2017). Moreover, excluding grants and international assistance, the fiscal deficit in the Jordanian government budget worsened from JD 1.447 billion in 2010 to JD 1.720 billion in 2016 (MOF, 2016). The Jordanian GDP also fell from 3% in 2013 to 2% in 2016 (Jordan Chamber of Industry [JCI], 2017), wherein the tax non-compliance activities would likely decrease the GDP (Mehrara & Farahani, 2016). This problem is exacerbated by the fact that the economy of Jordan has only limited economic resources and suffers from a chronic fiscal deficit that necessitates the provision of funding to satisfy economic and social development requirements (Al-Zoubi, Khatatba, Salama & Khatataba, 2013).

For clarification purposes, the primary source of government revenue in Jordan is taxes (Alibraheem & Abdul-Jabbar, 2016), which contrasts with its neighbouring countries that are blessed with natural resources (i.e., oil) as the main form of government revenue (Alkhodour, 2011). Tax non-compliance represents a major issue in the Jordanian economy and has led to a high loss in tax revenue (Alasfour, 2017; AL-Shawawreh & AL-Smirat, 2016; Alshirah, Abdul-Jabbar & Samsudin, 2016;

Alasfour, Samy & Bampton, 2016; Qtish, 2015). The rise in the non-compliance of tax payments has had a negative influence on the budget deficit in Jordan (Al-Naimat, 2013). This problem has led to an increase in public debt, which, in turn, has led to a lack of tax justice among the citizens and an increase in the rate of tax non-compliance, especially with respect to sales tax.

The Director of ISTD, Bashar Saber, said the total tax revenue loss in 2016 had exceeded JD3 billion (Al Emam, 2017). The Jordanian Audit Bureau (2014) indicated that a large amount of tax due to the government from individuals and enterprises had yet to be received by the deadline. Thus, the government must address the issue of tax non-compliance, as it has a considerable effect on the government revenue. Toukan (2014) declared that the size of tax non-compliance in Jordan was estimated to be around JD1.5 billion. Qawasmi (2014) has also reported that tax non-compliance and corruption has increased in the financial statements in Jordanian enterprises. Over the years, despite the increase in tax revenue, tax non-compliance has also increased as shown in the Figure 1.1, which illustrates the tax revenue and tax non-compliance from 2011 to 2015.



Figure 1.1

*Tax Non-compliance and Tax Revenue in Jordan from 2011 -2015*

Source: Ministry of Finance (2016) and Jordanian Economic and Social Council (2014)

Figure 1.1 provides information about the size of tax revenue and tax non-compliance, for the five-year period between 2011 and 2015. Over this period, tax revenue rose from JD 3,062.2 million in 2011 to JD 4,096.8 million in 2015. Over this period, evidence shows that an increase in the tax non-compliance level existed generally, which rose from JD 1,067.4 million in 2011 to JD 1,578.2 million in 2015; indicating a rise of around 48%. For the same period mentioned above, the tax revenue increased by 33% (i.e., from JD 3,062.2 to JD 4,096). Thus, the increase in the percentage of tax non-compliance (48%) is greater than the percentage increase of tax revenue (33%). On the basis of the official data from the JESC (2014), the average sales tax non-compliance represented about 71% of the total tax non-compliance over the period from 2011 to 2015. No actual estimates of tax non-compliance data are available in Jordan for 2016. However, the increase in tax

revenue amounted to JD 4.254 billion in 2016 (MOF, 2017). Thus, the expectation is that tax non-compliance would also increase accordingly.

In addition, the cases of tax non-compliance related to sales tax were more than those for the income tax (Nsour, 2014). For every JD3 collected as sales tax, more than JD1 is lost to sales tax non-compliance (Alasfour, 2017). Furthermore, around 87% of small enterprises and 35% of medium enterprises evaded sales tax payment in Jordan (Young Entrepreneur Association [YEA], 2011). Therefore, sales tax non-compliance is a serious and growing problem in Jordan. Annually, millions of tax revenues remain uncollected as result of tax fraud related to sales tax. As a consequence, the government of Jordan has resorted to borrowing from domestic or foreign sources to cover the shortfall in tax revenue (Alkhodour, 2011). Thus, sales tax compliance among SMEs would help to minimize the budget deficit.

The annual report of ISTD indicates that about 75% of tax revenue were generated from large businesses representing 0.1% of the total businesses enterprises, whereas around 25% of tax were received from SMEs representing more than 99% of the total businesses in Jordan (ISTD, 2016). Even though, an increased in the level of sales tax compliance was shown in large businesses, a low level of sales tax compliance was still recorded among the SMEs despite the expectation that SMEs should have be main contributors to tax revenues.

Torgler (2011), Alm (1999), and Jackson and Milliron (1986) suggested that, theoretically, other factors should influence tax compliance behaviour not referred to in the basic model using deterrence theory, and the use of one theory alone is

insufficient in explaining the phenomenon of tax compliance. Thus, tax compliance may be influenced by paths not captured by a single theory. Due to the negative effect of tax revenue loss on the economy, some past studies have searched to understand and discover what factors affect tax compliance through the expansion of Fischer's model by adding relevant factors both from the economic and socio-psychological factors (Alabede, 2012; Chau & Leung, 2009; Chan, Troutman & Bryan, 2000; Hanefah, 1996). In other words, just like other models of tax compliance, Fischer's model did not capture many other determinants of tax compliance.

Despite these expansions, the available literature was found to have no research that has yet examined the effects of patriotism as an independent variable and public governance as a moderator on sales tax compliance through the Fischer's model at the business level. Therefore, these social-related factors could be among the key determinants that influence sales tax compliance, and the importance of these factors in understanding sales tax compliance cannot be eliminated, especially in the context of Jordan. Even though the efforts of the department of anti-tax evasion, coupled with tax auditing by tax authority and the imposition of tax penalties on tax evaders (ISTD, 2016), the problem of sales tax compliance persists. Furthermore, the influence of the tax rate, tax moral, tax penalty, and tax fairness in terms of tax compliance are found to be mixed in Jordan in the context of income tax (Alkhodour, 2011; Slehat, 2009; Khasawneh, Obeidat & Al-Momani, 2008; Al-Oran & Al-Khdour, 2004).

Thus, the effects of the aforementioned factors remain unknown and ambiguous, especially in an environment like Jordan. In a nutshell, no research to date has examined the factors that explain the sales tax compliance of SMEs is available in the context of the Jordanian economy. Therefore, this study explores the issue of the increase in sales tax non-compliance among SMEs, and the factors influencing sales tax compliance in Jordan by incorporating patriotism as well as the moderating effect of public governance in the Fischer's model.

### **1.3 Research Questions**

The main research question is what are the factors that influence sales tax compliance behaviour among the SMEs in Jordan by extending Fischer's model. The specific research questions are as follows:

1. What are the relationships among tax complexity, tax audit, tax rate, tax penalty, tax moral, tax fairness, peer influence, patriotism and sales tax compliance?
2. Does public governance moderate the relationships among tax complexity, tax audit, tax rate, tax penalty, tax fairness, tax moral, peer influence, patriotism, and sales tax compliance?

## **1.4 Research Objectives**

The main research objective of this study is to determine the factors that influence the sales tax compliance behaviour among the SMEs in Jordan by extending Fischer's model. The specific research objectives are as follows:

1. To examine the relationships among tax complexity, tax audit, tax rate, tax penalty, tax moral, tax fairness, peer influence, patriotism and sales tax compliance.
2. To examine whether the public governance moderates the relationships among tax complexity, tax audit, tax rate, tax penalty, tax moral, tax fairness, peer influence, patriotism and sales tax compliance.

## **1.5 Contribution of the Study**

The present study contributes to the knowledge in the following aspects theoretically and empirically. First, this study provides evidence concerning the effect of the deterrence and socio-psychological theories on sales tax compliance. Prior studies have focused on the relationship between the both theories with income tax compliance, while a few studies have examined the relationship between those theories with sales tax compliance (Woodward & Tan, 2015; Faridy, Copp, Freudenberg & Sarker, 2014; Webley, Adams & Elffers, 2004). Furthermore, most have been conducted in developed countries, while no research to date has examined the relationship between both theories with sales tax compliance of SMEs in Middle Eastern and Arab countries, particularly in Jordan.

This study is probably the first study to examine the direct effect of patriotism and indirect effect of public governance on sales tax compliance by integrating them into the Fischer's model (1993). Very few prior studies have focused on the relationship between patriotism and income tax compliance (Gangl, Torgler & Kirchler, 2016; MacGregor & Wilkinson, 2012; Konrad & Qari, 2012), but not in the sales tax environment. Following the recommendations of Gangl et al. (2016) and MacGregor and Wilkinson (2012), the current study considered patriotism in the context of sales tax compliance among SMEs in particular. As for public governance, some previous studies have examined public governance as an independent variable with income tax compliance (e.g., Salminen & Ikola-Norrbacka, 2010; Cummings, Martinez-Vazquez, McKee & Torgler, 2009; Torgler & Schneider, 2009). However, to date, the literature search found that no prior study has investigated the inclusion of public governance as a moderator in the Fischer's model on sales tax compliance of SMEs in developing countries generally, more especially in Jordan.

This study also provides evidence about the sales tax compliance in the context of business by applying the Fischer's model (1993). The original Fischer's model focused on the individuals, but current the study covers the managers and the owners of SMEs. Woodward and Tan (2015) revealed that SMEs have more opportunities for tax non-compliance than individuals. Several researchers (e.g., Gangl et al., 2014; Mahangila, 2014; Alm & McClellan, 2012; Abdul-Jabbar, 2009) cautioned that there is a strong bias towards individual tax compliance and less interest with respect to business tax compliance. Specifically, businesses behaviour is not comparable to an

individual's behaviour due to both the internal structure of businesses and the potential influence of other businesses especially in industries dominated by a small number of businesses (Alon & Hageman, 2013; Bayer & Cowell, 2009). The majority of tax studies that have conducted in the context of SMEs have focused on income tax, with a very few studies focusing on tax sales as such (Woodward & Tan, 2015; Webley et al., 2004; Adams & Webley, 2001). Bidin and Marimuthu (2014) suggested that a need exists for more studies on business communities to create a better understanding of their perceptions of sales tax. To the best of the available knowledge about the literature in Middle Eastern and Arab countries, especially in Jordan, a lack of study has examined sales tax compliance of SMEs context is observed.

The results of this current study would contribute to minimize the gap in the literature concerning sales tax compliance. Mahangila (2014), Abdixhiku (2013), and Johnson, Masclet and Montmarquette (2010) reported that a notable gap exists in the empirical studies dedicated to sales tax compliance and that the factors influencing sales tax non-compliance remain elusive. Generally, most studies of this calibre have focused on income tax, and the evidence concerning sales tax compliance and sales tax non-compliance is lacking. Woodward and Tan (2015) declared that the determinants that affect sales tax compliance have not been determined or investigated. This is quite surprising given the significance of sales tax in tax administration and the public budget (Torgler, 2011). Alm and El-Ganainy (2013) pointed out that the literature on sales tax is very little relative to its fast diffusion as

a fundamental revenue tool for the majority of governments worldwide. Alshira'h et al. (2016) declared, through a review of the tax literature in Jordan, that no study has been conducted to discover the determinants of sales tax compliance in Jordan.

Practically, the present study makes significant contributions to various stakeholders in relationship to issues of tax compliance in the economy including the governments, tax authorities, policy makers and other of Arab countries and Middle East. This current study would enhance the understanding and knowledge of sales tax compliance in Arab countries and Middle Eastern. Additionally, the study would also provide useful information to tax authorities regarding the effect of the socio-psychological factors as well as deterrence elements on sales tax compliance behaviour.

The current study is great important to Jordanian tax authorities by providing empirical evidence to explain sales tax compliance of Jordanian SMEs that is yet unavailable. So, this study sheds some light on and identifies the key factors that affect sales tax compliance in Jordan, as well as contributes to the betterment of the government, tax authorities, and the public economic policies by providing insights into the relationship between sales tax and compliance behaviour. Thus, it is expected that this study would promote sales tax compliance among the SMEs, particularly in Jordan and the world at large. The present study also provided necessary and beneficial information for a formulation of suitable policies to combat tax non-compliance that would help to avoid distorted decisions, and, then in turn,

would increase tax revenue in Jordan where there is increased public debt and deficits of fiscal budget.

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

The general objective of the present study is to examine the factors affecting sales tax compliance among Jordanian SMEs. Thus, the current study focused on SMEs, which have prominent roles in the Jordanian national agenda. In line with that, the government, through various initiatives strongly encourages this sector to enhance its productivity and its contributions to economic growth.

Jordan has eight economic sectors (see chapter 2). The current study has chosen SMEs in the manufacturing sector as a representative of all SMEs in Jordan because manufacturing remains one of the most promising sectors (Amman Chamber of Industry [ACI], 2015) and is a master pillar of the Jordanian economy (Al-Homsi, 2015). In addition, the manufacturing sector makes important contributions to the fulfilment of social and economic development processes (JCI, 2017).

Specifically, the manufacturing sector contributes 25% to the total GDP directly, and another 40% indirectly to the GDP (Zarka Chamber of Industry [ZCI], 2016). Additionally, it employed 20% of the total labour force of the country. Likewise, manufacturing products represent around 86% of the country's exports (MIT, 2014), and attract more than 70% of foreign investments. In addition the manufacturing sector contributes to the financial stability of the country by providing more than one billion dinars yearly in indirect or direct taxes (ACI, 2015). Data were collected by

way of a nationwide sampling through self-administered questionnaires over a period of three months in 2017.

### **1.7 Organization of the Study**

This study comprises six chapters. The first chapter provides a summary of the issues and problem that motivate this study in the context of sales tax and SMEs. The chapter also includes the research questions and objectives and the anticipated theoretically and practically contribution to the literature. Additionally, it shows the scope of the study and the organization of the study. Chapter two provides an overview of the tax system and SMEs in Jordan. While chapter three presents the literature review in which the related theories are discussed. A discussion of previous studies concerning tax compliance behaviour in the Middle Eastern, Arab countries and globally is also presented. This comprises a discussion of factors influencing tax compliance that helps in the development of the theoretical framework and research hypotheses.

Chapter four outlines the research methodology and highlights how the research is conducted, including the research framework, hypotheses, research design, sample size, sampling selection, data collection, measurement of variables, and data analysis techniques. The fifth chapter reports the findings of the data analyses and includes demographic analyses concerning respondents and the research variables and demonstrates the application of PLS-SEM to realize the aims of this study and to test the proposed framework. Finally, chapter six provides an interpretation of the study's

findings, a discussion and highlights the theoretical and practical contributions of the study. This chapter also presents the research limitations and outlines future research suggestions and the conclusion of the study.



# CHAPTER TWO

## SALES TAX AND SMALL AND MEDIUM ENTERPRISES IN JORDAN

### 2.1 Introduction

Chapter two presents the overview of the Jordanian tax system starting with the background of the Jordanian tax system, and a detailed look into the income tax and sales tax<sup>2</sup>. In addition, the definitions of small and medium enterprises (SMEs) are presented in this chapter.

### 2.2 Tax System in Jordan

The Sales Tax Department and the Income Tax Department were combined in one department on the 16<sup>th</sup> of August 2004 under the name of the Income and Sales Tax Department [ISTD] by the amended law of the Income Tax Law and Sales Tax Law issued in Formal Gazette No. 4672 on 16/8/2004. The ISTD is under the responsibility of the Ministry of Finance. The tax rules in Jordan are based on the Constitution as the key source, which provides general principles that guide the government in enacting further tax laws.

The secondary sources are Income Tax Law No. (57) 1985, Sales Tax Law No. (6) 1994 and other tax laws, which dictate some general rules related to the definitions of taxpayers and taxes, tax obligations, and tax administration. The Jordanian

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<sup>2</sup> Sales tax in Jordan typically known as VAT or GST globally. See also footnote 1 and footnote 4.

government tax revenue includes direct and indirect taxes. The direct tax comprises of income tax from individuals, companies and taxes on estates, whereas the indirect tax involves sales taxes and customs taxes.

The Jordanian tax system aims at fulfilling the economic development and growth in Jordan to help the government incur the public expenditure since taxes are the main resource of the government budget. Another aim is to achieve the economic stability through helping the government reduce the negative impact of the economic recessions and inflation and encourage the investments and the protection of the national products. A further aim is to achieve social fairness through the redistribution of the national income among citizens and help the government supply services and the basic public goods, such as health care, education, security, and infrastructure (ISTD, 2015). The tax department is based on two separate laws; one is for the income tax and the other is for the sales tax as discussed in the following sub-sections.

### **2.2.1 Income Tax Law**

The Income Tax Department was established in 1951 under the Income Tax Law No. (50) 1950, and, since then, tax legislation has been derived from multiple amendments of the Income Tax Law No. (57) 1985, as amended by Law No. (4) 1992, Law No. (14) 1995, Law No. (25) 2001, and Law No. (28) 2009, for the purpose of improving the legislation, and keeping abreast of social and economic changes. The latest amendments were in 2014 under the provisional Law No. (34).

The Income Tax Law in Jordan stipulates that taxes are mandatory payments, collected from the individuals and the companies by the government. These income taxes are presented in the following sub-sections.

### **2.2.1.1 Individual Income Tax**

According to the Income Tax Law No. 34 (2014), the personal income tax is imposed on wages, salaries, rewards, bonuses, compensation, and any other monetary or non-monetary privileges earned by the individual through employment either in the private or the public sector. The tax rate on individual's tax income in Jordan is progressive in nature, and is charged on the taxable income of any individual according to the categories shown in Table 2.1

Table 2.1  
*Income Tax on Individuals in Jordan, 2014-2017*

<b>Taxable Income</b>	<b>Tax Rate</b>
For first JD10,000	7%
For second JD10,000	14%
For every JD above the second JD10,000	20%

Source: Income Tax Law No. 34 (2014)

However, the Income Tax Law No. 34 (2014) exempted several cases from paying taxes, including the King's possessions, the income earned by a blind or a completely disabled person, a pension salary accorded under the provisions of law and regulations, and any lump-sum payment received as a compensation or as indemnity for injury, and the termination of service or death.

### **2.2.1.2 Companies and Enterprises Tax**

According to the Income Tax Law No. 34 (2014), the companies and the enterprises' tax is imposed on the commercial, agricultural, industrial, services, professional or handicraft activity sectors. The tax is charged on the taxable income of any business according to the categories in Table 2.2.

Table 2.2

*Income Tax on Jordanian Companies and Enterprises, 2014-2017*

<b>Company/Enterprise Profit</b>	<b>Tax Rate</b>
Industrial Sector	14%
Insurance companies, electricity generation and distribution, exchange companies and intermediation, mining companies, communications, services, commercial Companies.	24%
Banks	35%
All other sectors	20%

Source: Income Tax Law No. 34 (2014)

However, the Income Tax Law No. 34 (2014) fully exempts the income of several entities from the income taxes; these include the income of unions, income of municipalities and official institutions, professional commissions, cooperative societies, cultural, charitable, sport and religious institutions, the income from the orphanage investments as well as the income of charitable (trusts) waqfs not aiming to profit, profits of stocks and dividends distributed by a resident person except for the profits of mutual investment funds generated by banks.

Based on the Income Tax Law No. 34 (2014), any business's breaching the payment of income tax or committing income tax fraud offences is liable to imprisonment for

a period ranging from one week to one year or to a fine of JD 500 – JD 1000 that is doubled in cases of evading paying the taxes.

### **2.2.2 Sales Tax Law**

The sales tax law was introduced in 1994 after the abolition of the consumption tax and is defined as the tax imposed on goods and services and domestic and imported commodities under the Law No. (6) 1994. Since then, the tax legislation has been derived from multiple amendments of Sales Tax Law No. (15) 1995, Law (24) 1999, Law No. (18) 2000, Law No. (36) 2000, Law No. (25) 2002, Law No. (23) 2003, Law No. (05) 2004, and Law No. (32) 2004. The latest amendments were in 2009 under the provisional Law No. (29), which charges the consumer indirectly through increasing the price of a commodity or a provided service (Awad, 2006).

Based on the recommendations of the World Bank, and the IMF, the government was motivated to begin thinking seriously about adopting a sales tax. The government's view of sales tax as a financing source of the public budget is one of the major aims of the economic reform, as well as a means to overcome the negatives and gaps in the application of the consumption tax (Al-Saad, 2014). Sales tax comprises of two types, namely special sales tax and general sales tax outlined in the following sub-sections:

### **2.2.2.1 Special Sales Tax**

Special Sales Tax (SST) is imposed on the supply of goods and services, as shown in Table 2.3, that are either imported from abroad, free zones or a local manufacturer. Taxpayers under the special tax are required to submit a monthly return of their supplies of goods and services subject to the special tax to determine the amount of tax due. Registered taxpayers are required to pay the due tax within the month following the end of the tax period. However, the director of ISTD may grant the registered taxpayers an extra period of no more than one month. At the same time, all goods and services under the special tax rates are also subject to the general tax rates. A special tax is imposed by specific or ad valorem rates of 6% to 102% (Haddad, Sbeiti & Qasim, 2017).

Table 2.3  
*Goods and Services Subject to Special Tax*

<b>Description</b>
Cement of all kinds.
Construction and reinforcement iron, plates, rods, angles, shapes, sections, tubes prepared for use in structures, of iron or non-alloyed steel.
Mineral lubricants and other lubrication materials and preparations containing by weight 70% or more of petroleum oils or of oils obtained from bituminous materials.
Beer (including non-alcoholic beer).
Ethyl alcohol, indentured.
Spirits and alcoholic beverages, including wines and other fermented beverages
Tobacco and tobacco products
Vehicles (cars)
Mobile phones and radio subscription services

Source: Income and Sales Tax Department (2016).

### 2.2.2.2 General Sales Tax

The General Sales Tax (GST) is imposed on most of the supplies of goods and services if such supply is not exempted or not subject to taxes under the sales tax law. GST is also imposed on the import of goods and services from abroad free zones, cities and duty-free shops, and local producers with 16% for most taxable goods and services. The current study focused on GST because most of the goods and services are subjected to this type of indirect tax. The percentage of GST is shown in Table 2.4 below:

Table 2.4  
*General Sales Tax Rate in Jordan*

Years	General Tax Rate
1994	7%
1995	10%
1999-2003	13%
2004-to date	16%

Source: Income and Sales Tax Department (2016)

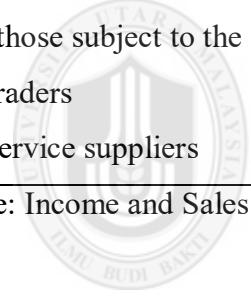
Registered taxpayers under the general tax are required to submit a two month return of their supplies of goods and services within the month following the end of the tax period. However, the director may give registered taxpayers a further period not exceeding one month. In addition, the taxpayers are required to register before the show dates as follows, namely: 1) On the beginning of a new business that makes taxable supplies if it seems to the person that the person's taxable turnover during the 12 months subsequent the beginning date may exceed the threshold; 2) At the end of any month if it appears that the person's taxable turnover during the 12 consecutive

months ending with the subsequent month may reach the threshold; and 3) At the end of any month if the taxable turnover during the preceding 12 consecutive months has reached the threshold (Sales Tax Law (29), 2009). When an individual has more than one business activity similar to the mentioned above, the lowest limit will be considered regarding the applicable registration threshold. The annual thresholds for tax sales registration are shown in Table 2.5.

**Table 2.5**  
*Annual Thresholds for Sales Tax Registration*

<b>Supplier Type</b>	<b>Registration Amount</b>
Manufacturers producing goods subject to the special tax	JD 10,000
Manufacturers producing goods other than those subject to the special tax	JD 50,000
For traders	JD 75,000
For service suppliers	JD 30,000

Source: Income and Sales Tax Department (2016)



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Some taxable goods and services are liable to zero rates, such as (olive oil, plastic floor coverings, firefighting vehicles, electrical energy and education, medical services as well as books, periodicals, newspapers, inputs for drug manufacturing, supplies used by the handicapped, laboratory devices and their accessories needed by the drug industry). On the other hand, some other goods and services are liable to a rate of 4%, such as (live animals, birds' eggs, natural honey and dairy products, green or black tea, natural phosphates, tomato paste).

Penalties and fines are employed in the Jordanian tax system for enforcing compliance, whereby any individual or an entity breaching the payment of sales tax or committing sales tax fraud offences is liable to a civil compensation penalty of an amount that is not lower than twice tax, but not higher than thrice taxes, and the amount to pay a criminal penalty of not less than JD 200, but not more than JD 1000. In cases of frequent offenders, the penalty imposed is doubled, and if the offence is repeated within a year, the court may impose the highest fine and the imprisonment of not less than three months, but not exceeding six months or both. The followings are considered as non-compliance acts under the Sales Tax Law No. (6), 1994:

1. A delay in the application for registration at the tax authority for a period of more than 60 days from the end of the date specified for registration.
2. Cancelling the registration of a taxpayer at his/her request, in spite of the reality that the taxpayers are still liable to registration in accordance with the provisions of the sales tax Law.
3. Submitting a return containing an under declaration exceeding JD 5000, whichever is lower, of the true value of taxable supplies of goods or services.
4. Charging undue tax by any person unless the tax is remitted to the ISTD within the period prescribed by this Law or is remitted prior to the discovery thereof.
5. Disposal of any of the tax-exempt goods or using them for purposes other than those for which they were exempted in a way contravening the provisions of the sales law.
6. The attribution of rates and descriptions or both to the taxable goods or services in contravention of the taxable rates and descriptions set out in the sales tax law.

7. Claiming a deduction or refund of tax in a manner that contravenes the provisions of the sales tax law.
8. Submitting or issuing inaccurate documents or information, the failure to submit or issue the documents required by this Law, the postponing the submission or issuance of these documents for the purpose of evading the tax.
9. Submitting or issuing forged or falsified documents with the intention of reducing the amount of tax properly due or claiming deductions or refunds in contravention of the provisions of this Law.
10. The failure to pay the tax due on an imported service for a period exceeding three months of the due date prescribed under the sales tax law.

### **2.3 Small and Medium Enterprises**

Small and medium enterprises (SMEs) play a major role in the economies of most countries (Atawodi & Ojeka, 2012). They constitute the most dynamic companies in the transitional economies and developing countries (Akimova, 2002). In other words, successful SMEs play a unique function in the economic and social development in both developing and developed countries, and they have a great role in reducing unemployment and poverty (Magableh et al., 2011).

In Jordan, SMEs have the capacity to raise exports, provide foreign currency, and reduce the equilibrium of the payment deficit, as well as provide services, goods, and materials for larger companies (Alrousan & Jones, 2016; Saymeh & Sabha, 2014; Alzyadat, 2011). Thus, the SMEs helps in enhancing the economy in Jordan (Roman,

2017), therefore, the Jordanian government began promoting SMEs in the early 1970s during the economic development plan (1976-1980), which led to the economic and social development of SMEs in producing commodities to replace the imported ones (Mumani, 2014).

The definition of SMEs varies from one country to another according to several factors listed below (Berisha & Pula, 2015; Brainyyah, 2013). Accordingly, there are some standards that should be taken into consideration including the volume of sales, number of employees, and asset value (Gibson & Van der Vaart, 2008). Therefore, selecting a particular definition for SMEs is a hard and a complex matter (Berisha & Pula, 2015). In Jordan, SMEs are defined according to the number of employees. In its classification of the SMEs, The Ministry of Industry and Trade (MIT) in Jordan applied the number of employee's standard, as presented in Table 2.6 below.

Table 2.6

*Classification of Small and Medium Enterprises*

<b>Size of Business</b>	<b>Number of Employees</b>
Micro	1-9
Small	10-49
Medium	50-249

Source: Ministry of Industry and Trade, Jordan (2016)

This standard is used to differentiate between large and SMEs business, and is one of the fundamental standards and the most used one (Saymeh & Sabha, 2014). The number of the employees has some benefits, namely it facilitates a comparison between sectors and countries, which can be measured to a fixed and uniform

standard, and, it is not linked to price change or exchange rate changes, and the information about it can be easily collected. Therefore, the current study uses the number of the employees as the basics for defining the SMEs in Jordan.

Jordanian SMEs do not keep good accounting records (Al-Smirat, 2013), lack disclosure of financial statements and required information (Al-Bakri, Matar & Nour, 2014). Bribery is more common among SMEs than large enterprises because SMEs believe they face disproportionate compliance requirements Jordan (International Business Publications [IBP], 2016). Accordingly, the consequences of such behaviour have an effect on the tax compliance. Hence, there is a need to conduct more studies on taxation in relation to SMEs. However, the tax authority stated that most taxes derive from large businesses including around three-quarters of the total tax revenues and the remaining taxes come from SMEs (ISTD, 2016), signifying low tax revenues from SMEs comparatively. Judging from the UNDP (2012) report on the shadow economy in Jordan, the low percentage of tax revenues from SMEs sector is probable due to its high contributions to the informal sector.

Examining SMEs tax commitment has attracted the interest of several studies due to several reasons listed as follows. First, SMEs are considered to have less tax commitment compared to large companies (Akinboade, 2015). Second, SMEs are important for the development and the economic growth in most countries (Maseko, 2014; Pope & Abdul-Jabbar, 2008), and third, SMEs collect sales taxes on behalf of the state (Akinboade, 2015). Consequently, the tax compliance of SMEs influences the magnitude of tax revenue that impacts the government's capacity to achieve its

social, economic and fiscal objectives (Akinboade, 2015; Chittenden, Kauser & Poutziouris, 2003).

In the context of Jordan, eight (8) economic sectors exist, namely the agriculture sector, the manufacturing sector, electricity, the gas and water sector, the construction sector, wholesalers, trade, restaurants and hotels sector, transport, storage and communications sector, services sector and financial sector, real estate and the business services sector (Jordan Investment Commission [JIC], 2018). Hence, the industrial sector is one of the most promising sectors in Jordan due to the number of the industrial cities and areas of development that are concerned with the support of medium and small industries; many of which benefited from the free trade agreements adopted by Jordan and the links with many sectors, such as transport, insurance, trade, etc. Consequently, it is concluded that this sector plays a greater role through contributing directly or indirectly about 40% of GDP.

## **2.4 Summary of the Chapter**

This chapter presented an overview of the importance of the tax system in Jordan, and explained the tax laws for sales tax that is considered to be the main source of the governmental revenue. Two types of sales tax were introduced, namely the general tax and the special tax, and the income tax law related to the individual's income tax and companies' income tax was also explained. In addition, this chapter presented an overview of the SMEs in Jordan. The following chapter presents a

review of the literature related to the present study, and the relationship among the research variables that lead to the formulation of the study hypotheses.



## CHAPTER THREE

### LITERATURE REVIEW

#### 3.1 Introduction

In this chapter, the relevant literature to the study is presented by means of two parts. The first part of the chapter presents the theories governing the tax compliance, namely the economic and socio-psychological theories. The second part highlights the concept of tax compliance and the factors influencing the tax compliance behaviour.

#### 3.2 Tax Compliance Theories

According to Zikmund, Babin, Carr and Griffin (2013), a theory is a formal and testable explanation of some events that include explanations of how things relate to one another. The previous studies have shown that numerous factors influence the tax compliance behaviour (Damayanti, 2012; Ross & McGee, 2012; Alm & Torgler, 2011; Alm & Torgler, 2004; Torgler, 2002; Mei Tan & Chin-Fatt, 2000). Therefore, adopting some factors alone may be unable to explain the complex nature of the tax compliance, as well as using one theory could be insufficient in explaining the phenomenon of the tax compliance (Ayuba, Saad & Ariffin, 2016; Nar, 2015; Trevino, 2008; Alm, 1991). Hence, explaining the tax compliance requires identifying the myriad factors that motivate tax behaviour; these factors could probably lie beyond the standard economics-of-crime approach to include theories of

behaviour suggested by psychologists and sociologists (Alm, Sanchez & Juan, 1995; Alm, 1991).

Kasipillai and Abdul-Jabbar (2006) indicated that the issues concerning the tax compliance are associated with many other disciplines, such as psychology, accounting, political science, economics, and public administration. Al-Ttaffi and Abdul-Jabbar (2015) highlighted that the economic and socio-physiological theories could reasonably clarify the complex essence of the tax compliance. In this regard, Andreoni, Erard and Feinstein (1998) stated that integrating the economic theory with the social psychology theory is essential. In addition, Sapiei, Kasipillai and Eze (2014) asserted that the behavioural and economic approaches play a major role in understanding and explaining the tax compliance behaviour. The economic approach is based on the idea of the economic rationality, whereas the behavioural approach follows concepts from sciences, such as sociology and psychology. Therefore, the present study considers using the socio-psychological and deterrence theories as the best ones to explain the tax compliance behaviour. Consequently, the current study is based on the deterrence approach and the socio-psychological approach associated with Fischer's model in determining the sales tax compliance among the Jordanian SMEs.

### **3.2.1 Deterrence Theory**

Historically, in terms of the economic approach, deterrence has been the prevailing strategy for enforcing the tax compliance (Frey, 2003). Economic studies on tax non-

compliance have been established by Becker's model (1968) of economics-of-crime; the model is utilized to combat the illegal actions. Hence, the deterrence policy is founded on the simple idea that the threat of legal penalties will prevent crime (Matthews & Agnew, 2008). Becker's (1968) assumption implies that taxpayers have a rational behaviour; each taxpayer is supposed to maximize the expected utility of the tax non-compliance gamble, weighing the benefits from successful tax non-compliance against the tax audit and penalty. Obviously, this theory is based on the fact that a taxpayer pays taxes out of fear of being detected and punished when he/she evades paying taxes (Alm, 2012; Alm, Cherry, McKee & Jones, 2008; Alm, 1999). The study by Allingham and Sandmo (1972) was the first one to apply the deterrence theory based on Becker's (1968) model of crime to shape the theory of tax non-compliance. The A-S model is familiar through the deterrence theory (economic approach) or an expected utility maximization model, and is considered the oldest model to resolve the tax non-compliance phenomenon. This theory indicates the ability of the tax system to decrease the phenomenon of tax non-compliance through punishment and threat. The model of the deterrence theory (Financial self-interest model of taxpayer compliance) is shown in Figure 3.1.

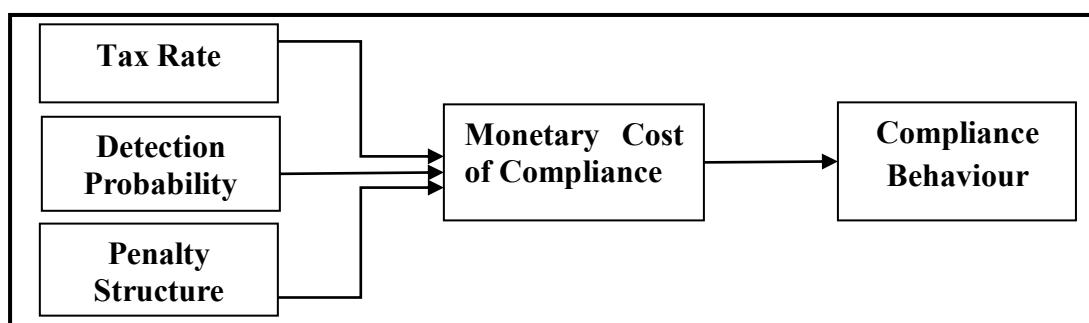


Figure 3.1  
*Deterrence Theory Model*  
 Source: Becker (1968)

As shown in Figure 3.1, the basic deterrence framework supposes that the threat of fines, penalties and tax audit are the main mechanism to improve tax compliance (Kuperan & Sutinen, 1998). Tax audit is defined as the probability that the tax authority will discover taxpayers who do not comply with the tax laws through tax audit and auditing programs (Fischer, 1993), whereas tax penalty is sanction and fine imposed on taxpayers who do not comply to paying taxes (Jackson & Milliron, 1986). Tax non-compliance is considered an economic crime, in which fines are the most prevalent and significant form of punishment for this kind of behaviour (Isa, 2012). The aim of deterring non-compliance is usually by generating fear, increasing the size of a fine, and increasing the tax audit (Forest & Sheffrin, 2002).

The deterrence approach supposes that the “external forces” promote taxpayers towards tax compliance (Ariel, 2012). Thus the deterrence theory presents evidence about the predictable connection between the increased deterrence efficiency and the deterred behaviour. In a tax obligation frame, this indicates that increasing the deterrence actions will result in increasing the obligation. In contrast, the reduction in the deterrence actions should result in a decrease in the tax compliance (Leder, Mannetti, Hölzl & Kirchler; 2010; Butterfielda 2002). Consequently, deterrence is needed to prohibit taxpayers from tax cheating (Verboon & Dijke, 2012).

On the other hand, Dwenger, Kleven, Rasul and Rincke (2014) found that deterrence has an insignificant influence on the intrinsic motivation of tax compliance, whereas it has a large influence on the extrinsic motivation for tax compliance. Similarly, Wenzel (2004) declared that deterrence is only appropriate and influential for

taxpayers who do not have tax morals, whereas it is ineffective for taxpayers who have tax morals. In addition, the deterrence threat certainly increases tax obligations, whereas it rarely ensures full obligation (Brockmann, Genschel & Seelkopf, 2015). In this regard, Feld and Frey (2011) revealed that the deterrence approach to tax non-compliance cannot increase tax compliance rates without used in conjunction with other methods.

However, by depending only on deterrence, the punishment may at times seem problematic and even counterproductive (Leonardo, 2011). In many countries, even though the deterrence degree is too low, the level of tax compliance is high (Torgler, 2007). Thus researchers argue that non-economic factors can help solve this issue (Torgler & Schneider, 2009). However, this method is problematic as it conflicts with empirical facts. Therefore, it is expected that a new way to enforce taxes will be found based on a psychological approach to economics (Frey, 2003). In addition, many other determinants that may have an important effect on taxpayer compliance behaviour are not taken into consideration in the economic approach, such as socio-psychological determinants and demographic characteristics. In short, the deterrence approach is insufficient to explain why many taxpayers willingly comply with the tax laws.

### **3.2.2 Socio-Psychological Theory**

The efforts to address the issue of tax compliance from various perspectives have led to a change in focus from the deterrence method to the socio-psychological method.

The social psychology approach is utilized to explain the human behaviour. Hence, the socio-psychological factors were first considered as determinant of tax compliance in the late 1950s (Onu & Oats, 2015). Schmölders (1959) was the pioneer who discussed the association of the tax mentality of the public and government services. Consequently, the non-economic determinants should be taken into account in explaining the tax compliance determinants of tax compliance (Torgler, 2002).

Scholars from sociology and psychology who have studied tax compliance showed that this phenomenon is a social issue (King & Sheffrin, 2002). Psychologists and sociologists argue that the behaviour of taxpayers may be irrational when influenced by the surrounding environment or by self-identification of belonging to a group that creates interactions, such as peer influence, social norms, imitation, neighborhood effects and herd behaviour (Ritsatos, 2014). James and Alley (2002) stated that the essential thrust of these contributions from psychology and sociology are that individuals are not selfish, simply independent and utility maximized. They also interact with other human beings according to differing attitudes, beliefs, norms and roles.

The socio-psychological theory indicates that compliance or non-compliance occurs when an individual accepts the influence of another individual or a group as he/she is eager to achieve a positive reaction from the others (Kelman, 1961). The sociologists tend to discover the reason for the difference in the human behaviour in the social system structure. Therefore, they demonstrate the individual's actions by examining

the forces that impinge on the position that they occupy within the system. This means that expand the basic economic model of crime control (deterrence theory) by making the law not the solely source of rewards and penalties (Badra, 2012). The socio-psychological influence is a group of extrinsic and intrinsic motivation that influences the human behaviour (Sutinen & Kuperan, 1999).

In addition, there are socio-psychological factors, including different types of norms, attitudes, perceptions of fairness and government (Kirchler, 2007; Snavely, 1990). The social influence has a crucial role on the taxpayer's compliance (Scholz, McGraw & Steenbergen, 1992). For example, taxpayers, who are convinced that the taxpayers around them do not comply with paying their tax, are more likely to adopt an attitude of non-compliance, and vice versa (Leviner, 2008). This indicates that in tax non-compliance behaviour, the peer group plays a key role on the taxpayer's decision to pay taxes or follow tax evasion (Vogel, 1974).

The socio-psychological approach does not only focuses on the taxpayers' own behaviours and peer influences but also on the influence of the government's achievement and the effect of the tax department treatment with taxpayers. Thus the success of tax compliance also relies on the collaboration among the taxpayers, the government, and the tax authorities (Gberegbe, Idornigie & Nkanbia-Davies, 2015; Salminen & Ikola-Norrbacka, 2010; Juul, 2006; Torgler, 2003; King & Sheffrin, 2002). Therefore, the social theory has been widely applied by researchers to explain works-to-works relational exchange (Lambe, Wittmann & Spekman, 2001). That is,

the social theory is considered one of the most influential conceptual models for understanding humans' behaviours (Cropanzano & Mitchell, 2015).

In this regard, Feld and Larsen (2012) argue that the psychological tax contract has elements of gain (or distributive justice) and participation. Therefore, it implies that the taxpayers engage in tax fraud and evasion when they are convinced that the exchange is unjust in their provision of public goods and services (Nur-Tegin, 2008). A number of theories under the socio-psychological approach has been applied to tax compliance research, such as the equity theory (Adams, 1965), the social exchange theory (Blau, 1964), the social identity theory (Tajfel, 1974), the social learning theory (Bandura, 1969), and the theory of moral reasoning (Kohlberg, 1969), which are discussed as follows.

The equity theory forecasts that the individuals judge fairness on the basis of results, and they believe that rewards and penalties should be divided accordingly with reference to the contributions and inputs (Bobek, 1997). Fairness is a fundamental element in a social system that is related to the allocation and distribution of resources. Addressing the fairness perceptions was achieved by means of the equity theory (Saad, 2011), which uses the social-psychology approach (Adams, 1965). Tax compliance literature has applied the equity theory to determine the level of the taxpayer's satisfaction (Christian, 2010; King & Sheffrin, 2002). The equity theory implies that taxpayers will conform to tax rules if they perceive that the system determining the rules is equitable (O'Shaughnessy, 2014).

Therefore, if the tax system is viewed as unfair or taxpayers perceive disparity between their own economic standing in comparison to others, tax evasion will occur to restore equity in the tax system (King & Sheffrin, 2002). Thus the equity theory foresees that tax non-compliance could become more pervasive if the perceived tax system becomes more unfair (Spicer & Becker, 1980). Generally, there is a positive effect of perceived fairness in tax-related affairs, which suggests that the perception of fairness will strengthen the tax compliance (Verboon & Goslinga, 2009).

Regarding the social exchange theory, it has been applied widely by researchers to explain works-to-works relational exchange (Lambe et al., 2001). The social exchange theory is considered to be one of the most influential conceptual models for understanding behaviours (Cropanzano & Mitchell, 2015). Theorists agree that the social exchange contains a series of interactions which mutually result in compliances (Emerson, 1976). The social exchange theory was formulated by Blau (1964) who stated that the social exchange is limited to actions that are contingent on rewarding reactions from others. According to Blau (1964), the social exchanges demand trust, whereas the economic exchanges have very specific results. Hence, the connection between the government and the taxpayers can be seen as a psychological contract or rational, which includes powerful loyalties and emotional links. Based on this perspective, taxation is a price paying for the government's works and maintenance of the legal system. In other words, if the taxpayers have a trust in the government's institutions, they will be more willing to pay taxes honestly (Cummings et al., 2009; (Torgler & Schneider, 2007). Hence, a strong association

between the government and the taxpayers leads to increasing the tendency of the taxpayers to abstain from tax non-compliance and reveal the willingness to pay the taxes (Alabede, Ariffin & Idris 2011). In this regard, several studies on tax compliance have applied social exchange theory (Ayuba, Saad & Ariffin, 2015; O'Shaughnessy, 2014; Leder et al., 2010; Alm, Jackson & McKee, 1993).

The social identity theory was introduced in the UK in 1971 by Tajfel (1974). The SIT is a socio-psychological analysis of the role of self-conception in group membership, inter-group relations and group processes (Hogg, Terry & White, 1995). Social identity theory focuses on the individual in the group and assumes that one part of the self-concept is defined by our belonging to social groups (Hogg & Abrams, 1988). The social identity theory addresses phenomena, such as discrimination, bias, stereotyping, ethnocentrism, inter-group conflict, normative behaviour, conformity, group polarization, organizational behaviour, crowd behaviour, leadership, group cohesiveness and deviance (Hogg, 2006).

It seems that compliance is approaching the social identity perspective, and the behaviour and attitudes in relationship to compliance are the results of the self-categorization procedure. Regarding tax compliance, it has been argued that it is more probable to happen when a super-ordinate identity is prominent than when a sub-group identity is salient (Samuel, 2011). The social identity theory characterizes patriotism in terms of people's self-categorization as members of a particular social set, such as a local or a national community (Tajfel & Turner, 1986). Hence, the social identity of the taxpayers affects their responsibilities and commitments, which

is considered as one of the main socio-psychological factors in tax compliance (Wenzel, 2007), and plays a more significant role in foreseeing compliance than does legitimacy (Murphy, Bradford & Jackson, 2015). Consequently, the social identity for patriotism provides a significant guidance for the social behaviour (Huddy & Khatib, 2007). Nevertheless, few studies have used the social identity theory in tax compliance behaviour (Gangl et al., 2016).

As for the social learning theory, it focuses primarily on the conditioning effects of the environment (Bandura, 1969). According to the social learning theory, the main factors determining compliance include peers' influence and the level of the social influence (Sutinen & Kuperan, 1999; Bandura, 1977). Therefore, the social learning theory confirms that the behaviour is a decision established on the interaction of the environment and the personal factor. The social learning theory as conceived by Akers and Cochran (1985) and Akers and Jennings (2009) includes four vital concepts, namely 1) a differential association component of social learning theory comprises the effect of members of family, other close peer groups or secondary groups like neighbors, school teachers, and churches, 2) the differential reinforcement refers to the equilibrium of perceived, experienced or anticipated penalty and a reward for behaviour, 3) definitions that are part of the social learning theory refers to orientations, values, and attitudes toward the offender or conforming the behaviour held by persons; 4) imitation happens when a person engages in a specific behaviour that he/she either indirectly or directly observed another person performing it.

Social learning theory is also employed in tax literature to explain the relations between social norms (peers) and tax compliance. Based on the literature review of tax compliance determinants from 1970-1985 and from 1986 to 1997, it was discovered that the social norms have a significant relationship with the tax compliance (Richardson & Sawyer, 2001; Jackson & Milliron, 1986). The individuals's peers may give incentives to comply with tax laws if feelings of reciprocity or guilt deter tax non-compliance. In contrast, if peers of the taxpayers are tax non-compliance themselves, the taxpayers' social norms regarding tax compliance may be reduced which could make them evade paying taxes (Coleman, 2013). The social norms reflect the behavioural patterns that are viewed similarly by others and that stem partially from the social approval/disapproval. As a consequence, if others behave in a socially accepted manner, the individual will also do similarly, and if others misbehave, the individual will follow the same way (Alm, McClelland & Schulze, 1999).

Similarly, Witte and Woodbury (1985) revealed that a higher rate of tax non-compliance exists when the community of taxpayers and peer groups do not comply to pay taxes. The impact of peer influence can be positive if the taxpayers, who have a powerful motivation to comply to pay their taxes, are surrounded by a positive reference group (Saad, 2010). Consequently, the taxpayers' behaviour is unintentionally or intentionally affected by their surrounding environment; therefore, the various geopolitics of taxpayers result in different attitudes and probably lead to the various behaviours among the taxpayers (Al-Ttaffi & Abdul-Jabbar, 2016).

Regarding the theory of moral reasoning that has been developed by Kohlberg (1969), it emphasizes the structure and the basics of reasoning and the public organizing rules or styles of thoughts (Kohlberg, 1969). The decision to comply or not to comply with tax rules includes a moral component, and taxpayer must draw on his/her perceived principles and values of conduct to assess the wrongness or rightness of his/her behaviour (Chan et al., 2000). Thus the theory of moral reasoning suggests that variations in taxpayer's moral will have an effect on tax compliance intention (Kaplan, Newberry & Reckers, 1997). This was advocated by Roth, Scholz and Witte (1989) who revealed the the ethical beliefs were a significant factor of tax compliance. Similarly, Kaplan and Reckers (1985) pointed out that taxpayer's moral concerning tax non-compliance significantly influenced tax evasion intention. In this regard, Sutinen and Kuperan (1999) stated that each level of moral development is characterized by the connection among the individuals and their social environment depends on the attitude and perception of the individuals towards the society.

Kohlberg and Hersh (1977) suggest that the development of the individual's moral follows six stages and three levels of moral reasoning. The first level of the moral development is the pre-conventional morality (stages 1 and 2), which focus on the personality and actions that are primarily motivated by a benefit/cost analysis that involves avoiding punishment and acquiring individual benefits. The second level of the moral development is the conventional morality (stages 3 and 4), which identifies the individual's relation to others, and actions are motivated more by a sense of duty and fulfillment of the social compliance. Post-conventional morality is the third level

(stages 5 and 6); at this level, the individual's actions are motivated by the principle of justice, and the fairness of a law would be evaluated by due process of its way or by the relation of the law to the general principle of justice (See Appendix G).

Table 3.1 presents the two basic approaches to tax compliance. One is to analyze the compliance in terms of the economic decisions based on the possible economic incentives and costs of complying or not complying. The other is to examine the effects of other factors on compliance decisions, particularly their relations to the taxpayers' behaviour which are concerned with wider behavioural issues and draw heavily on concepts and research from other disciplines, such as psychology and sociology.

**Table 3.1**  
*Approaches to Tax Compliance*

<b>Tax Compliance</b>	<b>Economic Approach</b>	<b>Psychology and Sociology Approach</b>
Concept of:	Tax gap (100% compliance less actual revenue)	Voluntary, willingness to act in accordance with the spirit as well as the letter of the law
Definition	Narrower	Wider
Tax compliance	Economic rationality	Behavioural co-operation
Exemplified by:	Expected benefits of evading, risk of detection and application of penalties, and maximize personal wealth.	Individuals are not simply dependent, selfish utility maximizes, they interact according to differing attitudes, beliefs, norms and roles. Success depends on co-operation
Issues of:	Efficiency in resource allocation	Equity, fairness and incidence
Taxpayer seen as:	Selfish calculator of pecuniary gains and losses	Good citizen
Can be termed the:	Economic approach	Behavioural approach

Source: James and Alley (2002)

Jackson and Milliron (1986) indicated that the deterrence theory is insufficient in explaining tax compliance behaviour, and that tax rate, tax audit, and tax penalty are not the only factors affecting the compliance behaviour. Therefore, they identified 14 factors that were categorized into four groups, as shown in Figure 3.2. The four groups show that Fischer's model includes four categories: 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 and penalties, and tax rates), based on the socio-psychological and economic approaches.

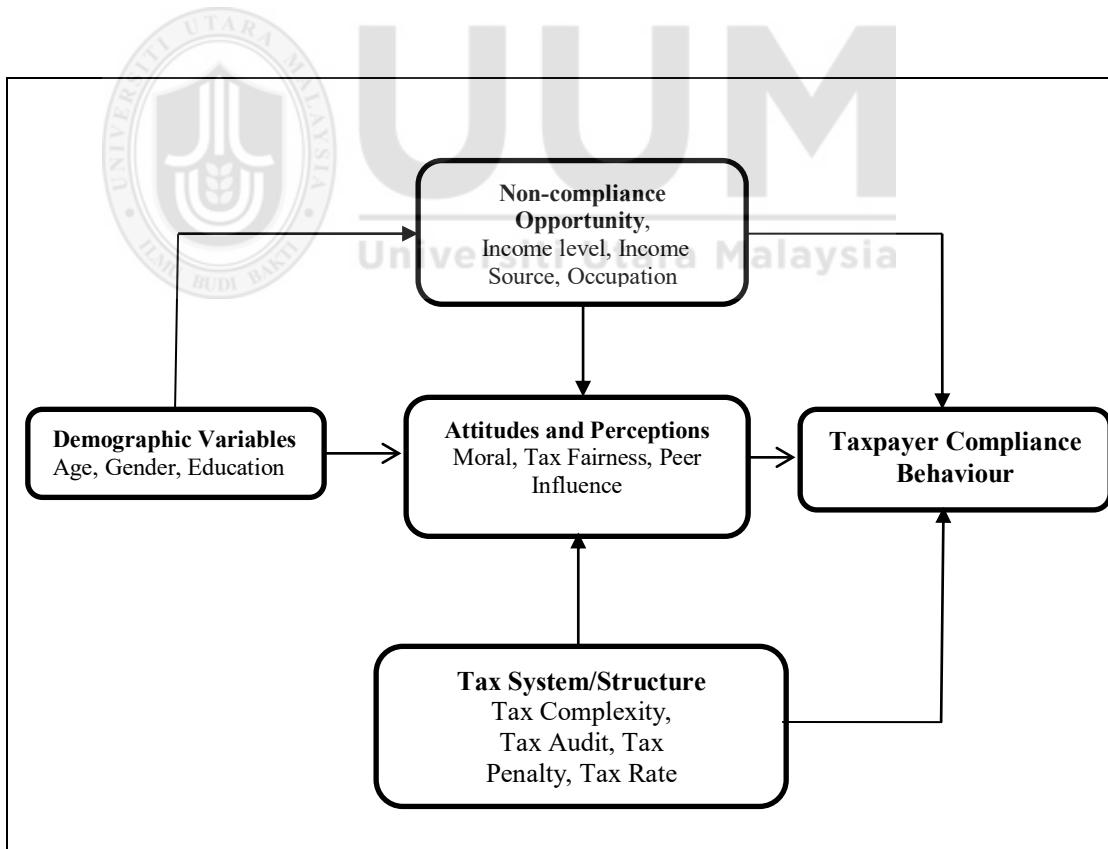


Figure 3.2  
*Fischer Tax Compliance Model*  
 Source: Fischer, Wartick and Mark (1992)

Table 3.2 presents a summary of the deterrence theory and a number of theories under the socio-psychological theory.

Table 3.2  
*Summary of the Relevant Tax Compliance Theories*

Theory	Explanation	Supporting Variable	Source
Deterrence Theory	It supposes that increasing tax audit, tax penalty and reducing tax rate lead to improvement in tax compliance. It also assumes that a taxpayer has a rational behaviour and maximizes the expected utility of tax evasion.	Tax system structure (tax audit, tax penalty, tax rate, and tax complexity)	Becker (1968)
Tax Equity	It posits that the fairness of tax system affects positively the taxpayer's behaviour.	Tax fairness	Adams (1965)
Social Exchange	It proposes that the social relationships among taxpayers and the government depend on the analysis of exchange benefits; it is based on the principle of actions and reactions.	Public governance	Blau (1964)
Social Identity	It assumes that a taxpayer will tend to remain a member of a group and seeks membership of new groups if these groups have some contributions to make the positive aspects of his/her social identity, thus influencing his/her tax compliance.	Patriotism	Tajfel (1974)
Social Learning	It proposes that tax compliance behaviour is a decision made based on the interaction of the personal factor and the environment.	Peer influence	Bandura (1969)
Moral Reasoning	It assumes that the level of the moral development of taxpayers influences their compliance.	Tax moral	Kohlberg (1969)

Source: Compiled by author

### 3.3 Review of Tax Compliance Studies

This section explains the income tax compliance studies worldwide, focusing mainly on business community with income tax, particularly the SMEs. This section also

includes studies conducted on the income tax compliance in the Middle East and Arab countries, particularly in Jordan.

### **3.3.1 Income Tax Compliance Studies among SMEs Worldwide**

Tax compliance has attracted the interest of numerous studies (Shaharuddin & Palil, 2012, Abdul-Jabbar & Pope, 2008). Jackson and Milliron (1986) concentrated on 14 variables that were the most commonly mentioned in the tax obligation studies between 1970 to 1985. Their study reviewed 43 compliance studies on direct tax, and provided a synthesis of the study findings for the 14 variables chosen; their work was boosted and updated by Richardson and Sawyer (2001), who provided a synthesis of around 130 tax compliance studies published from 1985 to 1997 (Abdul-Jabbar, 2009). In addition, they presented a discussion on the advances made in the scope of tax compliance research since Jackson and Milliron (1986). Fischer (1993) defined the determinants of tax compliance behaviour within the four categories adopted from Jackson and Milliron (1986), namely non-compliance opportunity (income source, income level and occupation), attitudinal and perception (tax moral, tax fairness and peer influence), tax system structure (tax complexity, tax penalty, tax audit and tax rates), and demography (age, gender and education).

Similarly, Abdul-Jabbar (2009) provided a review of 16 international tax compliance studies carried out from 1989 to 2005, as well as a review of 20 Malaysian tax compliance studies conducted from 1994 to 2008. The international and Malaysian studies focused on the attitudes of individual taxpayers, especially towards tax rate

structure, tax fairness and tax administration, and their effect on tax compliance behaviour. Bărbuță-Mișu (2011) defined the determinants of tax compliance behaviour in two categories, adopted from 28 studies, and adapted them to the Romanian conditions, namely the economic factors (tax audit, level of income, tax audit, tax rate, penalties, tax benefits and fines), non-economic factors (attitudes toward taxes, tax fairness, personal and social norms).

Marandu, Mbekomize and Ifezue (2015) provided a review of 18 empirical international studies published from 1985 to 2012. Their aim was to determine the factors influencing tax compliance from the point of view of the social marketing. The results of their study revealed that the attitudinal, normative and subjective control variables utilized in the studies were suitable or good predictors of tax compliance.

In addition, Khelif and Achek (2015) presented a review and a synthesis of around six tax compliance studies published from 2004 to 2012. They indicated that the evidence is still limited, and many approaches to identify the determinants of tax non-compliance remain unexplored, as well as the outcomes are mixed and inconsistent. Four categories of determinants in tax non-compliance literature were identified, including demographic, cultural and behavioural, legal and institutional, and economic variables.

Although most of the studies on tax compliance focused on the behaviour of individuals, very few studies involved the business' taxpayers. The following

reviews focus on the tax compliance studies conducted in several countries. For example, in Joulfaian's (2000) study on the corporate tax compliance in the USA, he revealed that the managers of firms, who evade paying their personal income taxes, have a positive relation with the tax non-compliance of their firms. His study also found that higher audit rates, lower tax rates, and large corporate size have a negative relation with tax non-compliance, whereas a high income level has a positive effect on tax non-compliance, and the foreign ownership has an insignificant impact on tax non-compliance.

Another study within the context of USA by Hanlon, Mills and Slemrod (2005) examined the extent and nature of the corporate tax non-compliance utilizing previously undisclosed internal revenue service operational audits and appeals data combined with secret tax return data. It was revealed that the non-compliance in large companies is higher compared to small and medium enterprises, whereas the tax non-compliance of medium enterprises is lower. It was also found that the tax rate and governance quality do not have an impact on the compliance behaviour of a firm's taxpayers, and corporates in the private sector are linked with higher non-compliance. A further study within the context of USA by Birskyte (2014) explored the relation between trust in the government and the willingness of non-farm sole proprietors to pay taxes in USA. The findings indicated that having a high confidence in the government improves tax compliance.

Within the Chinese context, Chan and Mo (2000) examined the impact of tax holidays on corporate taxpayers with respect to the tax evasion behaviour. Their

outcomes revealed that corporates are less compliant before a tax holiday and that most corporates are more compliant in a tax-exemption period. Additionally, domestic market-oriented corporates, service-oriented corporates, and joint ventures are less compliant than export-oriented corporates, wholly foreign-owned corporates and manufacturing- oriented corporates respectively.

In Australia, Evans, Carlon and Massey (2005) explored the connection among the record keeping practices of small businesses (owner-managers) and compliance problems. Their findings indicated that poor SME record keeping practices led to a decrease in tax compliance, and tax compliance costs have a positive relation with poor record keeping. Another study in the Australian context was conducted by Langham, Paulsen and Härtel (2012) on the factors influencing the income tax compliance of SMEs owners in Australia. The findings of their study revealed that taxpayers do not have enough control over their behaviour to guarantee the successful fulfillment of all tax tasks, and a high level of intention does not always mean compliance, as well as tax complexity has a negative correlation with the willingness to be tax compliant.

In UK, Hasseldine, Hite, James and Toumi (2007) examined the effect of written communication on improving actual taxpayer compliance for sole proprietors. Their results showed that the communications were particularly efficient for self-preparers when reporting turnover, whereas penalty letters were more efficient than the normative citizenship letter for reported turnover and a change in net profit but only for the self-prepared returns, not for the paid preparer's returns.

In a study by Nur-Tegin (2008) on the company level survey data of 4,538 companies in 23 transition economies, the results revealed that anti-corruption, tax audit, tax reforms, and tax fairness have a positive relation with tax compliance, whereas tax rate increase does not seem to cause companies to under-report their tax. The study also found that owned enterprises in the private sector are more likely to evade compared to owned enterprises in the public sector.

In Malaysia, among the first empirical evidences concerning the determinants of SMEs corporate income tax compliance in the developing countries, the study of Abdul-Jabbar (2009) examined the income tax compliance cost as well as the managerial perceptions regarding the SMEs taxation and business characteristics using the survey method. He found that an increase in tax complexity and a decrease in tax audit were positively associated with an increase in tax non-compliance. In contrast, he found that business size, tax level, tax fairness, IRB relationship and tax compliance costs do not have any effect on tax compliance behaviour. He also found that the impact of the sector, business age, tax rate and incentives on the income tax compliance behaviour of the SMEs was inconclusive. Another study within the Malaysian context by Hai and See (2011) examined the impact of tax and account preparers on the sole proprietor behavioural tax non-compliance intention. The findings indicated that attitudinal variables (expected tax cost, tax fairness), subjective norms variables (unapproved account preparer and unapproved tax preparer), and demographic variables (age and gender) have a positive correlation with the tax non-compliance intention of sole-proprietors.

Similarly, Sapiei et al. (2014) focused on the factors of corporate taxpayer's compliance behaviour with respect to the income tax reporting in the Malaysian public listed companies. The findings indicated that tax compliance cost has an insignificant relation with tax compliance, and large and medium-sized were more non-compliant compared to the small-sized. In addition, public listed companies in the manufacturing sector were more compliant compared to those in the services sector. Moreover, tax complexity and tax psychological costs have a positive relation with tax non-compliance, and older corporations are more compliant than their younger counterparts. It was also found that tax audit and tax penalty led to a reduction in tax non-compliance.

Another study in the Malaysian context was conducted by Yusof, Ling and Bee (2014) who analyzed and tested 375 tax-audited cases from the Inland Revenue Board of Malaysia in 2011. The results indicated that an increase in the tax rate and tax penalty have a positive relationship with tax non-compliance, whereas the financial and foreign ownership liquidity have no impact on tax non-compliance.

In a study that involved 80 countries around the world, Tedds (2010) analyzed the available data set on corporations to identify the determinants that impact the non-compliance behaviour of the corporates. The results showed that corporates shared in tax non-compliance, and the corrupted governments are the first reason for tax non-compliance, and the second reason is the tax rate. He also found that the political instability, tax fairness and organized crimes had no impact on tax non-compliance.

In New Zealand, Yong (2012) discussed the tax audit-query experiences of small businesses' owners and evaluated how this affected their tax perceptions by employing procedural justice. The findings revealed that unfair procedures had a negative correlation with the willingness of taxpayers to interact with the tax authority, and the tax audit operations are ineffective in detecting tax cheating made by a business.

In Indonesia, Brainyyah's (2013) study aimed at determining the impact of tax fairness, tax complexity and tax knowledge on income tax compliance of SMEs entrepreneurs. The findings revealed that tax fairness has a positive effect on tax compliance, whereas tax knowledge does not significantly impact tax compliance, and tax complexity has a negative linkage with tax compliance. Another study by Inasius (2015) examined the tax compliance of individual retailer SMEs using a questionnaire distributed to 319 individual retailers. It was found that the income tax rate has a negative relation with tax compliance, whereas tax audit, tax knowledge, and referral group have a positive relationship with tax compliance.

In Cameroon, Akinboade (2014) examined the tax compliance behaviour of SMEs' owners in the wholesale and manufacturing sectors. Time-consuming operations, high registration cost, and complex tax system were found to promote the tax non-compliance of SMEs. It was also noted that when the perception of the tax system is fair, clear, and easy to understand, it promotes the tax compliance of SMEs.

In Tanzania, Mahangila (2014) examined the impact of corporate income tax penalty, procedural justice, retribution, and the interaction between retributive and procedural

justice on income tax compliance behaviour of SMEs. The results revealed that the corporate income tax penalties levied on managers (responsible persons) are more effective compared to the corporate income tax penalties charged on corporates. It was also found that the retributive justice of the corporate income tax penalties has a positive correlation with tax compliance, and the high tax compliance costs have a negative relation with tax compliance. Within the context of the African countries, a study was conducted in Ghana by Antwi, Inusah and Hamza (2015) that examined the impact of the demographic characteristics of SMEs' owners on their tax compliance. The findings showed that women are more non-compliant with tax laws, high education positively affects the non-compliance rate, older people are more compliant compared to their younger counterparts and the marital status has a correlation with the entrepreneur's non-compliance behaviour.

In Nigeria, Ayuba et al. (2015) examined the role of the perceived service orientation on the relation among fuel subsidy removal, work family conflict, and the tax compliance of SMEs' owners in Nigeria. The findings supported the interacting impact of perceived service orientation on the relation among work family conflict and tax compliance behaviour, whereas no interacting effect was found between the fuel subsidy removal and tax compliance. In Oladipupo and Obazee's (2016) study, the focus was on the effect of taxpayers' knowledge and tax sanctions on the income tax compliance of SMEs' owners in Nigeria. The data were obtained using a questionnaire distributed to 277 SMEs. The results revealed that tax knowledge and tax sanctions have a positive correlation with tax compliance.

In Uganda, Musimenta, Nkundabanyanga, Muhwezi, Akankunda and Nalukenge, (2017) examined the impact of tax fairness, isomorphic forces and strategic responses on tax compliance of SMEs. The findings show that there are significant relationships between tax fairness and isomorphic forces with tax compliance, whereas the relationship between the strategic responses and tax compliance is non-significant.

However, few limited studies have been carried out on business' compliance. The major reason for focusing on individuals rather than businesses' taxpayers could be the difficulty in obtaining data since each business comprises many legal requirements that protect the privacy of business tax returns (Chan & Mo, 2000). The literature review shows that some studies were conducted on tax compliance that are relevant to (owner-managers) business income tax compliance (Musimenta et al., 2017; Oladipupo & Obazee, 2016; Ayuba et al., 2015; Antwi et al., 2015; Inasius, 2015; Akinboade, 2014; Birskyte, 2014; Yong, 2012; Langham et al., 2012; Hai & See, 2011; Hasseldine et al., 2007; Evans et al., 2005).

In addition, other studies focused on the income tax compliance of business corporations (Mahangila, 2014; Sapiei et al., 2014; Yusof et al., 2014; Tedds, 2010; Abdul-Jabbar, 2009; Nur-Tegin, 2008; Hanlon et al., 2005; Chan & Mo, 2000; Joulfaian, 2000). Several studies have indicated the need to conduct more studies on the tax compliance of SMEs to identify and understand the factors influencing their tax compliance. A summary of the key findings based on international income tax compliance studies on SMEs is available in Appendix C.

### **3.3.2 Income Tax Compliance Studies in Middle East and Arab Countries**

Similar to the global tendency on compliance behaviour research, studies on the Middle East and Arab countries also focused on income tax compliance, but no study was conducted on the sales tax compliance. The Middle East is considered one of the main important regions that have contributed to the development and the growth of the universal economy. Therefore, it is significant to solicit the public views of the nations in this region towards the common global economic issues like tax non-compliance (Al-Ttaffi & Abdul-Jabbar, 2016).

For instance, Mahmmud's (1977) study in Egypt was probably the first one on tax evasion in the Middle East and Arab world. His study aimed at identifying the causes of income tax evasion. It was found that a weak tax law, tax unfairness, and poor taxpayer's awareness had a positive relationship on tax evasion. Another study by Al-Bahwashi (1986) identified the factors influencing the income tax evasion. The results established that tax rate, tax audit, middle and low income have a positive relationship with tax evasion. In Al-Said's (2001) study, it was found that unfair tax exemptions led to an increase in tax evasion, and the tax rate was positively linked to tax evasion; however, tax rate was negatively linked with investment.

Regarding the reasons of tax evasion in Egypt, Nomani (2011) tried to identify the main reasons behind the spread of tax evasion in Egyptian society. The findings revealed that the lack of transparency of public expenditure increased income tax evasion. Said (2011) revealed that loopholes in the tax law and a decrease of trust between the taxpayers and the government increased income tax evasion.

In Syria, Al-Katib (2000) found that taxpayers do not have morals and were not willing to pay their tax and there was no confidence between the taxpayers and the government. In addition, the goods and services provided by the government were disproportionate to the size of tax payment, the government did not do anything for taxpayers, the tax rate was high, and the tax system was unfair.

In their study on the reasons of tax evasion in Syria, Akroush and Zouhiri (2005) indicated that magnitude of tax evasion totaled around 200 billion Syrian Pounds, the tax system was inadequate, tax department employees received low wages and salary, and an increase in the tax rate or unemployment were positively correlated with tax evasion. Another study by Mrouh (2011) indicated that an increase in tax rate was positively linked to an increase in tax evasion and the governmental revenue, and tax penalty was positively related to a reduction in tax evasion. Al-Adi and Abdullah's (2013) study found a positive relation between the fairness of the tax system and a reduction in tax evasion. In another study, Al-Adi (2015) demonstrated that tax complexity and tax unfairness were positively correlated with the tax evasion.

In Palestine, Mansour (2004) declared that the absence of security and political stability played a major role in spreading the phenomenon of income tax evasion. In this regard, Al-Omour (2007) attributed the phenomenon of income tax evasion in the Gaza strip to the inefficiency of the tax penalty, the political and economic instability in Palestine, and the low cooperation between the tax authority and taxpayers. Similarly, Dergham and Al-Omour's (2009) study on the main reasons

behind the increase in income tax evasion in the Gaza Strip indicated that the absence of security and political stability, full sovereignty of the Palestinian authority over the Palestinian territories, and lack of the transparency of public expenditure were positively related to tax evasion. The findings on tax evasion was also examined by Ateeq (2013) who mentioned that the tax authority suffered from serious structural and functional deficiencies that led to the ignorance of the taxpayer towards the significance and objectives of tax, which consequently increased tax evasion.

In Turkey, Saruc (2001) examined the responses of 268 individual taxpayers. The results indicated that an increases in the tax audit and tax penalty were positively related to tax evasion, whereas ethics were negatively related to tax evasion. In addition, young taxpayers were more likely to evade, and the high level income was positively related to tax evasion. Another study in the Turkish context by McGee, Benk, Yıldırım and Kayıkçı (2011) examined the effect of ethics on tax evasion using questionnaires distributed to 176 Turkish accounting practitioners. It was found that males strongly opposed to tax non-compliance compared to females, whereas the youngest group was least opposed to tax non-compliance, and it could be considered ethical in some aspects but unethical in other cases. It seems that the social norms were positively related to tax compliance, and that the efficiency of the tax administration had a significant positive moderating impact on the connection between social norms and tax compliance, as illustrated by Çevik and Yeniçeri (2013).

In Yemen, Aljaaidi, Abdul Manaf and Karlinsky (2012) measured the perception of the citizens concerning the income tax evasion. The results indicated that old people, females, single people, the level of the income and employees who work for the government were negatively related with tax evasion. In this regard, citizens with a high level of education compared to the ones with a low and a medium level of education perceived tax evasion as a serious crime. Several reasons were identified by Megble (2012) as the reasons behind tax evasion, including tax unfairness, inadequate tax authority, ineffective tax penalty, prevalence of corruption among tax officers, unawareness of taxpayers, and lack of trust between taxpayers and tax authority. Another study conducted in the context of Yemen based on 330 out of 500 self-administered questionnaires distributed illustrated that the tax service quality had a positive relation with income tax compliance of SMEs (Al-Ttaffi & Abdul-Jabbar, 2016).

A study on tax compliance in Iraq was conducted by Juhi (2011) who examined the relationship between tax fairness and tax compliance among the government's servants. The results indicated a positive relationship between tax compliance and tax fairness, exchange with the government and tax structure. As for tax evasion in Iraq as explained by Samarrai and Obeidi (2012), the findings revealed that tax unfairness and the poor awareness of taxpayers were positively related to tax evasion. In this regard, Baqer (2015) identified the role of legislation and procedures in tax evasion through a questionnaire distributed to the financial authority and academics in Iraq. It was found that tax complexity, tax unfairness, and the

inadequacy of the tax authority led to an increase in tax evasion. According to Kazem (2016), lack of trust in the tax office, and the services and infrastructure that were not good enough for the taxpayers were the causes of tax evasion based on a quantitative study conducted on tax auditors.

In another context, specifically Algeria, Murad (2010) indicated that unfairness of the tax system, unpredictability of tax law, inadequate tax authority, and high tax rate were positively associated with tax evasion. Zaied (2009) also examined the determinants of income tax evasion employing a questionnaire and found a positive relation between the increase in tax penalty, tax rate, education and confidence in the government with an increase in tax evasion. Similarly, the determinants of income tax evasion in Libya were investigated by Mohamed (2015) using a questionnaire among the individual taxpayers in the private sector. The outcomes revealed that there is a positive relationship between tax rate, corruption, Islamic religion and tax penalty with tax evasion, whereas a negative relationship was found between the educational level and tax evasion.

In Sudan, Kabashi (2007) employed interviews conducted with the employees in the tax department. The findings indicated that unpredictability of tax legislation, the absence of well-trained employees and an increase in the tax rate had a positive relationship with tax evasion. Abdul-Majid (2011) also examined the concept of tax evasion. The findings of his study showed that lack of tax penalty, absence of tax equity among taxpayers, as well as the weakness of tax awareness among taxpayers had a positive relationship with the tax evasion.

A study on business income tax in Sudan was conducted by Ali (2013) who stated that most businesses do not keep regular and sound accounting records and ledgers. In addition, the accounting systems applied on the economic units were weak, incomplete, or even not available in some units, thus leading to tax evasion. In Morocco, Alshaibani's (2014) study revealed that the lack of taxpayer's awareness, tax unfairness, tax complexity and loopholes in the tax laws were the main reasons for a high level of tax evasion.

As presented in the above mentioned review of studies on tax compliance in the Middle East and Arab countries, the focus was on the income tax of individuals in the private and public sectors. However, to the best knowledge of the researcher, there is only one study that focused on the income tax compliance of SMEs in the Middle East and Arab countries by Al-Ttaffi and Abdul-Jabbar (2016). In addition, the issues of sales tax compliance of SMEs were not examined by the prior studies. Hence, a need arises to conduct more studies in this regard. Therefore, the current study explains the determinants of sales tax compliance of SMEs, particularly in Jordan. A summary of the key findings of income tax compliance studies in the Middle East and Arab countries is shown in Appendix D.

### **3.3.3 Income Tax Compliance Studies in Jordan**

In spite of the growing issue of tax non-compliance in Jordan, few studies have been conducted and little information is available about the determinants of the tax non-compliance issue. A review of some studies (a review of 8 published studies and a

total of 10 masters and doctoral studies), has revealed that there are around 18 Jordanian tax evasion studies for the period between 1994 and 2016. These studies were either wholly or partly related to the income tax evasion and the income tax compliance as follows.

Awamleh (1994) was perhaps the first study on tax evasion in Jordan that aimed at investigating the effectiveness of the income tax department based on questionnaires distributed to 174 employees in the income tax department. The findings revealed that the taxpayers are not satisfied with the income tax department; several economic, political, social, and managerial obstacles limit the performance of the income tax department. Al-Khdour's (1999) study showed the amount of the income tax evasion and the reasons behind this problem during the period from 1976 to 1997. The results revealed that estimated income tax evasion reached JD 217.7 million due to the increase in the tax rate.

A similar study was conducted by Zaiton (2003) to examine the major reason behind the spread of tax evasion using a questionnaire among 188 external auditors and 127 tax auditors. He found that the level of confidence among taxpayers and tax authority are low as well as the tax authority does not have sufficient information about the taxpayers. The reasons for the increase in the tax evasion according to Al-Maharma (2003) are taxpayer's weak awareness of the importance of tax payment, lack of trust between the taxpayers and the government, as well as the less experience and efficiency of the tax auditors in the tax authority to reduce the tax income evasion. Income tax evasion was also studied by Bataineh (2003) to identify the determinants

of income tax evasion using a questionnaire distributed to 76 doctors, 43 lawyers, 55 pharmacists and 29 engineers (income taxpayers). He found that a decrease in tax rate leads to a decrease in the tax income evasion, and the experience of the employees has a negative relationship with the tax income evasion.

Al-Oran and Al-Khdour (2004) also examined the relationship between tax rate and income tax evasion using the data analysis of the income tax revenue over the period 1976-1997. The results indicated a positive relationship between tax rate and income tax evasion. In addition, Muhamm (2004) examined the effect of an unclear law, tax rate, tax fairness and tax penalty on the income tax evasion using questionnaires distributed to 25 tax auditors. The results revealed that there is a positive relation between the unclear income tax law, high tax ratio, unfair income tax law and lack of tax penalty and the increase in tax income evasion.

A study conducted by Haddad (2006) examined the role of control procedures in reducing tax evasion. A questionnaire was employed to collect data from 111 external auditors and 78 tax auditors. The findings revealed that tax audit is effective in reducing tax income evasion, as well as loopholes in the income tax law facilitated tax evasion. Abusnina's (2008) study also examined the factors that affect income tax evasion. A questionnaire was distributed to 91 external audits. The results indicated that the bad economic situation has a positive correlation with tax evasion, as well as the tax penalties are ineffective in limiting tax evasion.

Khasawneh et al. (2008) examined the effect of income tax fairness on taxpayers' compliance through a questionnaire distributed to 275 personal income taxpayers.

The findings revealed that the tax system, the income tax law, and the tax rate structure are fair. In another study, Slehat (2009) aimed to identify the tendency toward tax evasion in Jordan. Data were collected by a questionnair distributed to 212 income taxpayers in the private as well as the public sectors. He found a positive significant relationship among increase in penalty rate, tax rate, tax audit, tax fairness, religion, and ethics with increase in tax evasion, whereas education and the level of income are negatively related to tax evasion.

Al-Zou'bi (2010) examined the effect of moral, psychological and social factors on the level of tax compliance using a questionnaier collected from 614 income tax assessors. It was found that the psychological, ethical and social factors have statistically a significant effect on the level of the income tax compliance. Alkhoudour (2011) focused on the causes of shadow economy using a data analysis of income tax revenue over the period 1977-2010. The results indicated that unemployment rate has a negative effect on tax evasion and the depreciation of the Jordanian dinar has a positive effect on tax evasion.

Tax evasion was also examined by Olaimat (2012) by means of a questionnaire distributed to 90 income tax auditors. The personal, administrative, legislative, economic and social factors were found to play a major role in tax evasion, as well as manipulating the revenue and expenses without keeping accounting records is considered to be one of the most important forms of tax evasion.

Similarly, Al-Zoubi et al. (2013) aimed at identifying the causes behind the tax evasion using questionnaires administered to 120 income tax auditors. The results

indicated that tax penalties are insufficient to reduce tax evasion and the employees in tax authority do not have experience in addressing tax evasion. In this regard, Qblan (2014) investigated the impact of the accounting policies and the applied procedures of the tax department on reducing tax evasion. Data were collected by means of a questionnaire administered to 100 income tax auditors. The findings indicated that accounting policies impact the temporary income tax Act No. (28) of 2009 to limit tax evasion, and the procedures applied by the tax department have no impact on limiting tax evasion.

Al-Falahat and Zaidan (2014) tried to discover the impact of tax evasion on sustainable development in Jordan using questionnaires distributed to 12 external auditors and 18 income tax auditors. They found that there is an increase in the amount of evasion in Jordan, which is an intentional and planned act. It was also found that taxpayers payed huge amounts of money to tax advisors to help evade paying taxes. Factors affecting corporate tax evasion were examined by Al-Sheikh, Al-Adham, Qasem and Yousef (2016) using questionnaires distributed to 173 external auditors. It was found that tax penalty, tax rate and company size have a significant effect on income tax evasion.

Reviewing the past studies revealed that the studies in the Jordanian context have focused on individual taxpayers, external auditors as well as the auditors and employees of the tax authority. However, only one study focused on the business income (Al-Sheikh, Al-Adham, Qasem & Yousef, 2016). Obviously, no study has examined the sales business sector or individuals in Jordan, compared to other

studies that focused on obtaining responses from the tax authority (Qblan, 2014; Al-Zoubi et al., 2013; Olaimat, 2012; Alkhdour, 2011; Al-Zou'bi, 2010; Al-Oran & Al-Khdour, 2004; Zaitoon, 2003; Al-Khdour, 1999; Awamleh 1994). Some studies had responses from employees in the private and public sectors (Slehat, 2009; Khasawneh et al., 2008; Al-Maharma, 2003; Bataineh; 2003), whereas other studies focused on tax auditors and external auditors (Al-Falahat & Zaidan, 2014; Abusnina, 2008; Haddad, 2006; Zaiton, 2003).

To the best knowledge of the researcher, there is only one study that focused on income tax evasion of business corporates (Al-Sheikh et al., 2016), whereas no study has focused on sales tax compliance of SMEs. Hence, there is a need to conduct studies on sales tax compliance because it is the main source of total tax revenue in Jordan, and sales tax non-compliance constitutes a major portion of total tax non-compliance. A summary of the key findings on the Jordanian tax compliance studies on income tax is shown in Appendix E.

### **3.3.4 Sales Tax Compliance Studies Worldwide**

VAT derives its name from the regime that demands the tax be imposed and collected at any value adding phase of the production operation (Makara, 2014). Nowadays, VAT is the most prevalent shape of consumption tax system applied in most countries (Giesecke & Tran, 2012; Symons, Howlett & Alcantara, 2010). Therefore, the current study focuses on sales tax compliance since the majority of

prior studies focused on income tax, whereas very few studies discussed the sales tax compliance list below.

For example, in USA, Murray (1995) aimed at exploring the sales tax audit selection and company under-reporting of statutory sales tax compliance. The results indicated that greater non-compliance opportunities contribute to an increase in sales tax non-compliance, and that the policy of tax audit to combat sales tax non-compliance is not clear. To identify the determinants of the VAT compliance of firms, Agha and Haughton (1996) analyzed the data of 17 OECD countries in 1987. They found that a higher VAT rate was negatively linked to tax compliance. They also found that administrations with a longer experience of implementing VAT led to an increase in VAT compliance.

In another context, specifically UK, Adams and Webley (2001) examined the factors affecting the VAT compliance of small business' owners using interviews. The results showed that a high tax rate, a non-equitable tax system and a decrease in tax morals had a positive relation with VAT non-compliance. They also found that having major opportunities for non-compliance resulted in a tendency to cheat if the penalties were not so severe. Similarly, Webley et al., (2004) detected the factors influencing VAT compliance using questionnaires from 359 out of 3,200 small businesses' owners in the catering and flooring/furnishing trades in UK. The findings showed that businesses' owners think that the pertinent tax department is powerful, and tax non-compliance behaviour is unacceptable. Businesses' owners admitted engaging in non-compliance, and they perceived that the VAT law is unjust for small

businesses, the social norms are affected by VAT compliance behaviour and mental accounting has an insignificant relation with VAT compliance.

In Chile, Engel, Galetovic and Raddatz (2001) demonstrated how VAT revenue information can be used instead of VAT non-compliance information to assess the effect of changes in the enforcement spending. The result indicated that an increase in enforcement spending led to an increases in VAT compliance, and that tax rate had a positive correlation with VAT revenue. Another study in Chile and Argentina by Bergman and Nevarez (2006) analyzed the VAT tax return data to assess the effect of tax audits on VAT taxpayer's compliance. The findings established that tax audits have a negative effect on promoting VAT non-compliance behaviour among evaders, but they have a more positive impact on those who inclined to comply.

In the context of the European Union, Matthews's (2003) study evaluated the Laffer curve for the rate of VAT utilizing data collected through the revenue statistics for 14 countries. The findings showed that the efficiency of the VAT system reduced with increase in the VAT rate. He also found that VAT non-compliance is positively linked to the tax rate.

The differences in the time required for VAT compliance in 145 countries was conducted by Symons et al. (2010) who indicated that VAT is the prevalent form of consumption tax system applied in the world, and the necessary time to comply with VAT differs considerably around the world and among the neighboring countries. For instance, VAT compliance in the developed countries takes less time compared

to the developing ones, and VAT compliance takes a longer time when extra documentation has been submitted with the VAT return. In addition, the administrative procedures vary based on each country, and have a significant effect on how long it takes for VAT compliance.

Another study by Johnson, Masclet and Montmarquette (2010) examined the impact of perfectly controlling the matched income on sales tax compliance in the Canadian trade sector. The findings indicated that increasing the tax audit does not necessarily lead to a reduction in tax non-compliance. In a different context, specifically Kenya, Naibei (2011) examined the effect of the use of Electronic Tax Registers (ETRs) on VAT compliance in 233 firms. The results revealed a positive correlation among the use of ETRs and VAT compliance. In addition, VAT compliance was found lower among firms with a middle turnover of sales, whereas large companies were highly VAT compliant. Equally, VAT compliance was good among the companies with the lowest sales turnover. Finally, tax audit was found to have a positive relationship with VAT compliance.

In Kenya, Wawire (2011) explored the determinants of VAT revenue by analyzing time series data for the value-added revenue for the period 1963-2008. The results revealed that demographic, institutional and structural features of the economy have a positive effect on VAT revenue. Naibei, Momanyi and Oginda (2012) explored the relationship among the size of taxpayer's income, tax audit and tax registers on VAT compliance. The data were collected using questionnaires distributed to 233 registered firms. The findings revealed that VAT non-compliance was high in the

middle-income enterprises, and there was a positive link between VAT compliance and tax audit. The study also found that the regular and effective use of tax registers had a positive correlation with VAT compliance.

In Iran, Biabani and Amezani (2011) investigated the factors that influence the VAT compliance behaviour using a questionnaire distributed to individual taxpayers. The results showed that the tax compliance cost and tax culture had a positive relationship with VAT compliance, and tax complexity was insignificantly associated with VAT compliance. In Vietnam, Giesecke and Tran (2012) calculated the VAT compliance rates of firms in all economic sectors by the analyses of the data for a time series. It was established that the VAT compliance rate was around 13%, and raising the VAT rate and removing or reducing exemptions could be an efficient way of raising VAT revenue.

In Nigeria, by using questionnaires distributed to three categories (layman, businessmen and professionals) of taxpayers Oladipupo and Izedonmi (2013) aimed to identify the tax education level, especially the level of understanding of VAT law. The findings indicated that most of the respondents did not have knowledge of VAT law in Nigeria, regardless of their literacy level, and poor knowledge of tax laws was responsible for the high level of taxpayers' non-compliance. In the same context, Eragbhe and Omoye (2014) examined the impact of SME's characteristics on VAT tax compliance cost in Nigeria. The results showed that the business age, employee's size, turnover, industry class and distance to tax office had a negative relationship

with VAT tax compliance costs. They also found a positive correlation between the export status and the outsourcing and VAT tax compliance costs.

In Bangladesh, Faridy, Copp, Freudenberg and Sarker (2014) examined the relation among the VAT complexity, VAT compliance costs and SME non-compliance to VAT. The data were collected using qualitative and quantitative methods. The results indicated that the contribution of SMEs in VAT revenue was underrepresented in Bangladesh. Complexity in VAT law and compliance costs positively affected the VAT non-compliance in SMEs. Tax audits and tax penalties were also found to have less impact on VAT non-compliance. In New Zealand, Based on 37 out of 300 self-administered questionnaires, Woodward & Tan (2015) examined the attitudes toward the GST compliance of small businesses' owners. It was found that penalty, audit, fairness and morals had a positive relation with GST compliance.

In sum, despite the growing problems of tax non-compliance in the developing and developed countries, many studies have been carried out on income tax, whereas very few studies have been conducted on sales tax compliance and its determinants, whereby the level of compliance is still not clearly understood. Some of these previous studies have focused on the sales tax compliance of corporates (Naibei et al., 2012; Naibei, 2011; Matthews, 2003; Agha & Haughton, 1996). Other studies have tested the sales tax compliance of businesses (owner-managers) (Woodward & Tan, 2015; Webley et al., 2004; Adams & Webley, 2001).

Some other studies examined the sales tax compliance in all types of ownership of business (Faridy et al., 2014; Eragbhe & Omoye, 2014; Giesecke & Tran 2012;

Salleh, 2009). Other previous studies have focused on individuals (Oladipupo & Izedonmi, 2013; Biabani & Amezani, 2011). Finally, some prior studies have analyzed the time series data of tax revenue (Wawire, 2011; Johnson et al., 2010; Symons et al., 2010; Engel et al., 2001; Marry, 1995). However, the literature concerning sales tax compliance is limited and there is a need to conduct further studies on sales tax compliance, which is one of the main sources of the government's revenue.

Universally, sales tax is applied in around 160 countries (Azmi et al., 2016a; Adereti, Adesina, & Sanni, 2011; Symons et al., 2010). Interestingly, few studies that were conducted in UK and New Zealand have focused on the sales tax compliance of SMEs. However, to the best knowledge of the researcher, no study has been carried out on the sales tax compliance of SMEs in the Middle East or Arab countries, specifically Jordan.

Hence, the aspect of sales tax compliance needs further studies to be conducted for several reasons. First, there is no study conducted to explain the sales tax behaviour of the SMEs in the Middle East and Arab countries, especially in Jordan. Second, previous studies conducted on sales tax were very few and have neglected the effect of some factors, such patriotism and public governance on sales tax compliance. A summary of the key findings on sales tax compliance is shown in Appendix F.

### **3.4 Tax Compliance**

Taxes are critical elements of the total domestic revenue in the developed and developing countries. Countries promote their economy by their heavy dependence on both types of taxes that are either direct or indirect (Tehulu & Dinberu, 2014; Vadde, 2014; Thananga, Wanyoike & Wagoki, 2013; Vadde & Gundarapu, 2012; Prichard, 2010; Torgler & Schaltegger, 2005; Palil, 2005). Tax compliance is a compulsory duty imposed on all people in corporates or as individuals. Therefore, all people are expected to voluntarily comply to tax law, but some people do not follow the tax law (Seidu, Abdul & Sebil, 2015; Kirchler, Kogler & Muehlbacher, 2014). Hence, companies and individuals who do not comply to pay taxes are a critical challenge faced by the tax authorities (Jayawardane, 2015).

Generating and ensuring tax compliance depends on the participation of taxpayers in the governmental decisions and expenditures (Alm et al., 1993), and increasing penalties and tax audit (Alm & Torgler; 2011). Despite numerous efforts were adopted to address tax compliance, this issue remains complex and persistent (Ali, 2013). In other words, tax compliance is considered one of the contemporary issues, particularly in the developing countries, which try to determine methods to develop the efficiency in collecting tax revenue to support their budgets financially (Maseko, 2014).

According to Devos (2008), there is no existing specific standard to define the tax compliance throughout tax compliance researches. For instance, Andreoni et al (1998) defined tax compliance as taxpayers' willingness to comply to tax laws in

order to support the economy balance of the country. Another definition by Alm (1991) and Jackson and Milliron (1986) defined tax compliance as the reporting of all incomes and payments of all taxes by fulfilling the provisions of laws, regulations and court judgments. A third definition is by Roth et al. (1989) which referred to compliance as the taxpayer's filling all required tax returns at the proper time and that the returns accurately report tax liability in accordance with the tax laws, regulations, and court decisions applicable at the time the return is filed.

Tax compliance is also considered as a game, which depends on reciprocal interactions between decisions of taxpayers and tax agency, and a trust of taxpayers in tax law and fairness of tax system (Kirchler, Niemirowski & Wearing, 2006). Tax compliance has multi-faceted measures, whereby compliance of taxpayers should follow three various types of compliance, including reporting compliance, filing compliance, and payment compliance (Brown & Mazur, 2003).

Tax compliance, tax avoidance, tax evasion, and tax fraud are used synonymously throughout tax compliance researches, with several researchers making a difference between tax evasion and tax avoidance (O'Shaughnessy, 2014). As for tax non-compliance, it takes either the form of tax evasion or tax avoidance, relying on the legality grade of taxpayers' business (illegal business or legal business) (Bătrâncea & Nichita, 2012; Likhovski, 2007). Regarding tax evasion, it involves illegal and intended business taken by institutions and individuals to lower their legally due tax commitments of under-reporting sales, income or wealth by exaggerating deductions, dispensations or loans or by failing to file suitable tax returns (Ritsatos, 2014).

Tax evasion is intended to be premeditated actions of tax non-compliance generating in paying tax lower than the actual ones (Kasipillai, Aripin & Amran, 2003). Abdul-Jabbar and Pope (2008) explained that tax evasion includes some elements of illegal behaviour coupled with the intention of the taxpayer to intentionally mislead tax reporting, and fool the tax authority to pay low tax than is indeed owed. Hence, Ariffin (2013) indicated that tax evasion is always against the tax law. For Kasipillai and Jabbar (2006), tax non-compliance may take different measures, including failure to submit a tax return within the stipulated period or non-submission, understatement of income, overstatement of deductions, and failure to pay assessed taxes by the due date.

In contrast, tax avoidance occurs when exploiting ambiguities or impairment in the tax law to lower duty tax, thus breaking liabilities. In other words, tax avoidance can be unethical (Bruce-twum, 2014). However, Ariffin (2007) stated that tax avoidance is legal, but it may be considered an unacceptable behaviour. Tax avoidance is legal when it indicates the taxpayers' cleverness to regulate their affairs in a suitable manner so as to decrease the payment of taxes (Kasipillai et al., 2003). In this regard, Likhovski (2007) explained that tax avoidance forms an act that is based on loopholes in the tax law. Similarly, Slemrod (2004) and Alm, Bahi and Murray (1990) showed that tax avoidance is any legitimate action that reduces taxes.

On the other hand, when taxpayers comply with their tax owed, tax gap will be lower. This aspect, tax gap, refers to the monetary variance between taxes collected and taxes due (Mascagni, Moore & Mccluskey, 2014; Strader & Fogliasso, 1989).

When numerous people evade their tax commitments, it will be hard for the state to supply the public services, including education, provision of electricity, security, road construction, provision of electricity, and health services at affordable prices.

The issue of non-compliance is vital for policy makers because non-compliance represents a lower revenue and results in a serious loss to the government. Tax non-compliance may also create an unfair burden on honest taxpayers, thus leading to disrespect for the tax system. Therefore, many tax administrations put enormous efforts to combat non-compliance and identify all possible measures to improve compliance (Isa, 2012).

In a short, tax non-compliance is a worldwide phenomenon; it imposes many economic costs and burdens on all governments. First, tax non-compliance leads unfairness between those who comply and those who do not comply by moving the tax burden to the first group, and thereby generating a motive for further non-comply (Feinstein, 1991). Second, it causes inadequacy in businesses' production, as they resort to stay invisible and small to facilitate non-compliance (Nur-Tegin, 2008). Third, tax non-compliance changes resources to non-productive activities like founding financial subsidiaries to cover up non-compliance (Slemrod, 2007). Finally, non-compliance probably retards the economic growth. Hence, the goernment's capacity to provide appropriate public goods, infrastructure, development of human capital, and development will fragile and weak (Johnson, Kaufmann, McMillan & Woodruff, 2000).

Given the importance of understanding tax compliance, several studies have focused on income tax compliance, whereas very limited studies have been conducted on sales tax compliance, which is also considered the most common and important in many countries in the world. It is important to note that the word ‘tax compliance’ in the current study refers to tax compliance in general. In the case of indirect taxation, such as sales tax, the specific term ‘sales tax compliance’ is used. Hence, sales tax non-compliance is a widespread phenomenon that involves the process of manipulating sales tax invoice and altering tax reports to achieve personal benefits, such as paying less sales tax, increasing earning and reducing a cost based on benefits obtained through evading taxes or depending on attitudes, beliefs and norms. Therefore, sales tax compliance is defined as a correct record of details on sales tax invoice, rather than being fraudulent in the details of tax invoice to pay less sales taxes.

### **3.5 Determinants of Tax Compliance**

Jackson and Milliron (1986) identified 14 tax compliance factors that are most commonly analyzed in the tax literature. These 14 variables are classified by Fisher (1993) into four main categories in Fischer’s model. This study borders it has been categorised into 3 groups, namely tax system structure (tax complexity, tax audit, tax penalty, and tax rates), attitude and perception (tax moral, tax fairness and peer influence), demography (age, gender, and education) built on incorporating socio-psychological and economic determinants (economical and behavioural approach).

The following sections discuss the literature findings on these variables as key compliance determinants.

### **3.5.1 Tax Complexity**

The tax complexity is considered one of the main determinants of tax compliance behaviour (Jackson & Milliron, 1986). The main assumption in decision making is that taxpayers can evaluate a range of complex choices, and by following the correct assessment of the whole available information, they select the choice that gives them the best results (Walsh, 2012). Hence, tax complexity is generally related with calculations, ambiguity, changes, excessive detail, forms, and record keeping (Long & Swingen, 1987). The present studies defined tax complexity as actions linked with the troubles that SMEs face with regard to sales tax law, namely frequent changes, excessive details, multiple computations as well as requirement of keeping detailed and special records.

The complexity of tax procedures and laws increases the size of corruption in the tax regime (Chander & Wilde, 1992). Taxes have become more complex with time in many countries in the world, and such complexity has become one of the significant determinants of tax non-compliance and tax compliance, whereby reducing tax complexity leads to increasing tax compliance behaviour (Richardson, 2006a). Hence, complexity of the tax system is considered one of the rational reasons behind non-compliance among taxpayers as it leads taxpayers to non-compliance either unintentionally or intentionally (Saad, 2012). When the tax administration decreases

the complexity of tax system, it must lead to promoting the taxpayer's behaviour. In relation to this, seeking the advice of consultants reflects the complexity of the tax law, whereby facilitation and simplifying can lower this tax burden. In addition, tax offices also allow ways to lower ambiguity in the tax system through a direct engagement with the tax department (Alm, Cherry, Jones & McKee, 2010).

According to Chau and Leung (2009), complexity has two dimensions regarding to tax compliance behaviour, namely many intricate calculations in determining tax owed and confusing tax laws with too much details. Similarly, Faridy, Copp, Freudenberg and Sarker (2014) argued that there are three prime types of tax complexity ingrained in many tax systems, namely technical complexity, structural complexity, and compliance complexity. Thus, this highlights the demand for a good understanding of the tax system and decreasing tax complexity (Al-Mamun, Entebang, Mansor & Yasser, 2014).

Tax complexity leads to making opportunities for corruption (Liu & Feng, 2015; Kiani, 2014). In other words, the increase in tax non-compliance stems from increasing complex tax laws (Jackson & Milliron, 1986). That is, tax complexity leads to reducing compliance since the taxpayers seek to gamble more to tax evasion, and this impact can exacerbate if the taxpayer thwart and react to the tax complexity through intentional non-compliance (Kirchler, Hoelzl & Wahl, 2008). Therefore, reducing tax complexity leads to increasing tax collection (Mansour, 2015; Warren & McManus, 2007), since tax complexity leads to lowering the tax compliance (Muche, 2014; McClellan, 2013), and can result in accounting mistakes (McClellan,

2013). In this regard, Cuccia and Carnes (2001) found a negative relationship between tax complexity and the willingness or capacity to comply to pay tax. As for Feld and Schneider (2011), they found that the tax complexity has a direct positive relationship with tax non-compliance and shadow economy. A study by Abdul-Jabbar and Pope (2008) reported that increasing tax complexities and the repeated amendment of the different tax laws had a reverse effect on SMEs. Pope and Abdul-Jabbar (2008) declared that increasing tax complexity will raise tax compliance costs and, in turn, increase tax non-compliance. Another study by Sklenář and Burger (2006) showed that the tax complexity influences the efficiency and performance of the tax regime itself. In Africa, Oyewole, Gambo, Mas'ud and Nasidi (2014) found a significant negative relationship between tax complexity and tax compliance.

In contrast, Morse, Karlinsky and Bankman (2009) found that the relation between tax compliance and tax complexity is insignificant similar to studies conducted by Fauvelle-Aymar, (1999), Abdul-Jabbar (2009) and Azmi, Zainuddin, Mustapha and Nawi (2016b). Adam and Steven (2002) argued that a simple tax system may not be sufficient to deter tax non-compliance. On the other hand, some previous literature found a positive relation between tax complexity and tax compliance (Yahaya, 2015; Christie & Holzner, 2006). In the context of sales tax, Biabani and Amezani (2011) revealed that tax complexity has no relationship with sales tax compliance. In contrast, other prior studies found that tax complexity negatively influenced sales tax compliance (Woodward & Tan, 2015; Faridy et al., 2014).

Based on the above discussions, the tax complexity is one of the primary determinants of tax compliance, but the relationship between tax complexity and tax compliance is still inconsistent. Most of the studies on tax complexity and tax compliance have focused on income tax, whereas sales tax compliance has received very limited interest. In addition, these studies have examined tax complexity and tax compliance of individuals, whereas SMEs' tax compliance with tax complexity has received limited focus. Hence, the impact of tax complexity is not available on sales tax compliance of SMEs in the Middle East and Arab countries, especially in Jordan. Therefore, more studies are required to determine the relationship between tax complexity and tax compliance.

### **3.5.2 Tax Audit**

Tax audit is one of the most efficient determinants to protect the behaviour of tax non-compliance (Jackson & Milliron, 1986). Tax audit plays a vital function in the tax system structure and in realizing the revenue purposes, thus ensuring the financial status of the government and justice for taxpayers (Gupta & Nagadevara, 2007). In general, higher tax audit promotes tax compliance behaviour, whereby tax audit refers to the probability that the tax authority will detect taxpayer's non-compliance and attempt to address it (Chau & Leung, 2009). The tax audits have two impacts on tax compliance behaviour that are indirect and direct. The indirect influence of tax audit is deterrence impacts; tax audit deters the possibility of tax evaders from defrauding on taxes owed. The current study defines sales tax audit as the likelihood that the tax authority by monitoring and inspections will encourage SMEs to pay the

correct amount of sales tax and ensure that they registered to pay sales tax if their sales turnover equal or exceed the registration threshold. Hence, tax audit has an essential role to ensure the integrity of tax invoices and registration for the sales tax.

Tax audits are executed by visiting taxpayers' organisations/businesses or by desk audits at the tax authority offices (Isa & Pope, 2011). Hence, tax audits have a particular deterrent influence on those audited taxpayers and, more significantly, tax audits have an inclusive deterrent impact on unaudited taxpayers (Hasseldine & Hansford, 2003). The main aim of tax audits is to identify tax non-compliance i.e., non-payment of tax or non-submission of tax returns by taxpayers (Ling, 2008). Therefore, tax audits implement has many substantial roles which if they are effectively achieved, can lead to important contributions in making a better management of the tax system (Isa & Pope, 2011). Organization for Economic Cooperation and Development (2006) indicated that the roles of tax audits includes promoting voluntary compliance, detecting non-compliance at the individual taxpayer's level, gathering information on the status of the tax system (including patterns of taxpayers' compliance behaviour), gathering intelligence, educating taxpayers as well identifying areas of the law that require clarification.

A pioneering study by Allingham and Sandmo (1972) applied the deterrence tools on compliance and indicated that tax audit has a positive relation with tax compliance behaviour. Other studies also supported the relationship between tax audit and tax compliance (e.g., Inasius, 2015; Modugu, 2014; Feld & Larsen, 2012; Abdul-Jabbar, 2009; Alm & McKee, 2006; Pommerehne & Weck-Hannemann 1996; Spicer & Hero,

1985; Witte & Woodbury, 1985). Friendly relations with the taxpayers by the tax authority during auditing operations may lead to increasing tax obligations (Feld & Frey, 2007).

On the other hand, some prior studies revealed that there is an insignificant relationship between tax audit and tax compliance (Muche; 2014; Tehulu & Dinberu, 2014; Modugu, Eragbhe & Izedonmi, 2012; Faa, 2008). Chander and Wilde (1992) proved that tax compliance and tax revenue have a negative relationship with the acceptance of the tax auditor for bribes from taxpayers and the spread of corruption in the tax agency. In contrast, Tumwesigye (2011), Slemrod, Blumenthal and Christian (2001) and Saruc (2001) revealed that the tax audit has a negative relationship with the compliance behaviour. Similairy, a study by Palil, Zain and Faizal (2012) revaled that a high level of tax audit leads to discouraging tax compliance.

Previous studies found a mixed relationship between tax audit and indirect tax compliance; some prior literature found that the tax audit has a positive relation with sales tax compliance (Woodward & Tan, 2015; Naibei et al., 2012), whereas other studies found that the tax audit has no relationship with sales tax compliance ( Faridy et al., 2014; Johnson et al., 2010). In their study, Sinnasamy and Zainol (2017a) found that tax audit has a negative relation with excise duty compliance. In Jordan, Al-Maharma (2003) argued that the weakness of the tax audit and controlling procedures led to increase income tax evasion. Hence, Slehat (2009) pointed out that the tax audit has a positive relationship with the income tax evasion.

Thus in the light of above-mentioned literature, the relationship between tax audit and tax compliance is still uncertain. Hence, more studies are required to identify the relation between tax audit and tax compliance. In addition, most of the literature on tax audit and tax compliance has focused on income tax, whereas sales tax compliance has received very limited focus. Moreover, prior studies have examined tax audit and tax compliance of individuals, whereas SMEs' tax compliance with tax audit still needs further examinations. Though tax audit is a very significant in tax system structure, no study has examined the correlation between tax audit and sales tax compliance of SMEs in the Middle East and Arab countries. Therefore, there is a need for more studies to focus on this relationship, especially in Jordan.

### **3.5.3 Tax Rate**

Tax rate is considered one of the main factors in the tax system structure, and one of the major determinants of tax compliance (Richardson, 2006a). In addition, tax rate is one of the main constructs in the tax system in Fisher's model (Chau & Leung, 2009). Therefore, tax rate is considered a basis upon which the tax revenue that the government collects rests on. The rise in gross tax revenue from a growth in a tax rate does not rely only on the magnitude of the tax rate boost but also on the response of the taxpayers to increase the tax rate (Dahlby & Ferede, 2012). The present study defines sales tax rate as the percentage imposed on supplies of goods and services, that are either imported from abroad or from free zones and local producers if such supply is not exempted from the sales tax law.

According to the deterrence theory, tax rate has a significant relationship with tax compliance (Allingham & Sandmo, 1972), and the impact of the tax rate on compliance involves income and substitution impacts. It was also declared that a greater tax rate would minimize after-tax-income and increase tax compliance, thus assuming a reducing risk-aversion. This scenario is referred to as the income effect. A higher tax rate will also make works of tax evasion more profitable which is pointed out to as the substitution impact. Consequently, it was concluded that there is an ambiguity of change tax compliance due to the impact of the tax rate. However, few studies support this result (e.g., Weber et al., 2014; Alm et al., 1995; Feinstein, 1991; Yitzhaki, 1974), which revealed that increasing the tax rate has a positive relationship with increasing the tax compliance. On the contrary, the majority of studies do not support the theory (e.g., Inasius, 2015; Hauptman et al., 2014; Kuehn, 2014; Mukhlis, Utomo & Soesetyo, 2014; Pellizzari & Rizzi, 2014; Seren & Panades, 2013; Bărbuță-Mișu, 2011; Ali, Cecil & Knoblett, 2001; Alm & McKee, 1998; Reckers, Sanders & Roark, 1994; Friedland, Maital & Rutenberg, 1978).

On the other hand, some prior studies indicated that the tax rate has no relation with tax compliance (e.g., Modugu, Eragbhe & Izedonmi, 2012; Kim, 2008; Richardson, 2006a; Park & Hyun, 2003; Baldry 1987). In Jordan, the increase of tax rate was found to have a positive relation with increasing the income tax evasion (Muham, 2004; Al-Maharma, 2003; Bataineh, 2003; Al-Khdour, 1999). In contrast, Khasawneh, Obeidat and Al-Momani (2008) found that a fair tax rate leads to reducing the tax evasion. More specifically, in the context of the indirect tax, tax rate

is negatively associated with sales tax compliance (Matthews, 2003; Agha & Haughton, 1996), whereas. Sinnasamy and Bidin (2017b) found that the tax rate has a significant negative relationship with excise duty compliance. Conversely, Luitel (2005) and Engel et al. (2001) declared that the tax rate is positively related with sales tax compliance.

Based on the above discussions, the link between tax rate and tax compliance is still inconsistent. Most of the studies on tax rate and tax compliance have focused on income tax, whereas limited studies have been conducted on sales tax compliance. In addition, prior studies have examined the tax rate and tax compliance at the individual level, whereas few studies have been conducted on SMEs' tax compliance with tax rate. Therefore, further studies are required to determine the relation between tax rate and sales tax compliance. This is attributed to the fact that the tax rate is one of the main influences of tax compliance behaviour. However, to the best knowledge of the researcher, no study has examined the relation between tax rate and sales tax compliance of SMEs in the Middle East and Arab countries. Therefore, a need arises for more studies to focus on this relationship, especially in Jordan.

### **3.5.4 Tax Penalty**

Penalties are one of the significant factors of tax system structure that affects the tax compliance (Devos, 2013; Chau & Leung, 2009), since threat of penalties has been considered one of the efficient ways to prevent tax non-compliance (Mohdali, Isa & Yusoff, 2014). In other words, tax punishments have significant objectives. First,

they increase voluntary tax compliance with the tax system due to the probability of paying extra money as a consequence of non-compliance. Thus they are considered as an incentive for tax compliance. Second, they encourage the equity of tax system since they supply the technique to address taxpayers' behaviour who do not comply to paying tax and those taxpayers who comply to paying taxes (Doran, 2009).

The present study defines sales tax penalty as the sanctions and fines that are imposed on SMEs due to committing sales tax fraud offenses. In literature, Allingham and Sandmo (1972) reported that tax penalty has a positive relation with increasing tax compliance. Similarly, the majority of the available literature and empirical studies found a similar result (Ng & Muturi, 2015; Yoon, Yoo & Kim, 2011; Arcand & Graziosi, 2005; Snow & Warren, 2005; Park & Hyun, 2003; Ali et al., 2001; Kaplan et al., 1997; Witte & Woodbury, 1985).

In contrast, some researches found no relationship between tax compliance and penalties (e.g., Engida & Baisa, 2014; Mohdali et al., 2014; Palil et al., 2012; Pommerehne & Weck-Hannemann, 1996; Alm et al., 1992). In this regard, Feld and Tyran (2002) reported that the penalties do not lead to increase the obligation rates because it is only a symbolic fine.

In Jordan, Muham (2004) stated that the tax penalty is insufficient to reduce tax evasion, whereas Slehat (2009) indicated that the increase in tax penalty is positively connected with tax evasion. In contrast, in the specific context of the indirect tax, Woodward and Tan (2015) and Webley et al. (2004) found that tax penalties have positive relation with sales tax compliance, whereas Sinnasamy and Bidin's (2017b)

study found that tax penalty has a significant negative relationship with excise duty compliance. In another study, Faridy et al. (2014) revealed that tax penalties do not have an effect on sales tax compliance.

In summary, the relationship between tax penalty and tax compliance is inconsistent in the prior studies. In addition, most of the studies on tax penalty and tax compliance have focused on income tax, whereas few studies have focused on sales tax compliance. In addition, previous studies have examined tax penalty and tax compliance at the individual level, whereas SMEs' tax compliance with tax penalty have received limited interest. Moreover, the relationship between tax penalty and sales tax compliance is not clearly stated in the literature. Therefore, more studies are required to determine the relation between tax penalty and sales tax compliance. This is particularly significant as tax penalty is one of the major factors of tax compliance behaviour. To the best knowledge of the researcher, no study has focused on the relationship between tax penalty and sales tax compliance behaviour of SMEs in the Middle East and Arab countries. Therefore, there is a need for more studies to be conducted on this phenomenon, especially in Jordan.

### **3.5.5 Tax Moral**

The morals of taxpayers are a hazy concept to be defined. Morals generally refer to the ethics, values or principles held by a person (Jackson & Milliorn, 1986). Hence, tax moral, tax ethics or tax honesty are defined as an intrinsic motivation to pay taxes arising from the moral obligation to pay taxes and the belief in contributing to the

society by paying taxes (Doerrenberg, Duncan, Fuest & Peichl, 2014; Cummings et al., 2009; Torgler & Schneider, 2009; Frey & Torgler, 2007; Torgler, 2007). This concept of moral values can aid in explaining why tax non-compliance deterrence based on the economic factors cannot clarify efficient high levels of tax compliance (Vythelingum, Soondram & Jugurnath, 2017; Loureiro, 2014). The moral behaviour is defined as an intrinsic motivation by moral principles and ethical value (Young, Lei, Wong, & Kwok, 2016). That is, morals are systems of principles of behaviour that are developed to supply orientation in social interactions or the relation between people's behaviour and are utilised to adjust and temperate the human affairs (Ho & Wong, 2008). Thus moral works can be explained by five dimensions, namely moral knowledge, socialization, autonomy, empathy, and moral judgment (Hogan, 1973).

In this regard, sales tax moral is considered an intrinsic motivation to pay sales taxes resulting from the ethics compliance to pay sales taxes and the strong belief in contributing to build one's nation. Richardson (2006) revealed that non-economic factors exercise the strongest effect on tax non-compliance in comparison with the economic ones, and moral values were found to be one of the most important factors across the 45 countries. Tax moral was defined as the moral principles or values individuals hold about paying taxes (Alm & Torgler, 2006; Torgler & Murphy, 2004). Considering the moral feelings, such as guilt and shame, would provide a satisfactory clarification about taxpayer's compliance behaviour (Martinez-Vazquez & Torgler, 2009). Guilt feelings, also referred to as tax moral, may contribute to

reduce tax non-compliance (Torgler, 2007). However, moral values are considered a societal phenomenon that is hard to be explained (Torgler, 2002).

Alm and Torgler (2006) compared the levels of tax moral values between Spain and USA and found that moral values in USA are higher than Spain and other fourteen European countries (Alm & Torgler, 2004). According to Kaplan, Newberry and Reckers (1997), tax compliance intentions are significantly higher among taxpayers who have a high moral reasoning in their decision. Therefore, tax moral may increase when the taxpayers perceive that the public goods and service provided by the government are equal to their tax payment. Tax moral may also increase through the participation of the taxpayers in the political and the governmental decisions, fair procedures, taxpayers' perceived fairness and friendliness of the tax department (Feld & Schneider, 2010). However, tax moral decreases when the taxpayers have low trust in their government and the tax authorities, and feel lack of respect by the tax authorities (Frey, 2003).

McKerchar, Bloomquist and Pope (2013) reported three main factors as significant for tax moral, namely moral basics and standards that define what suitable behaviour are for persons as portion of a social mass, the perceived inclusive justice of the tax system, and confidence in the state's institutions. Hence, moral values play a vital role in influencing the magnitude of the informal economy, whereby higher moral values cause less shadow economy (Loureiro, 2014; Torgler, Schneider & Schaltegger, 2010).

The prior studies found that tax moral has a positive relation with tax compliance behaviour, and increasing the tax moral leads to lower tax non-compliance and greater tax compliance (e.g., Lisi, 2015; Nabaweesi, 2013; Torgler, Schaffner & Macintyre, 2007; Witte & Woodbury, 1985). Similarly, Riahi-Belkaoui (2004) found that tax compliance has a positive relationship with tax moral principles. These moral values, as Torgler (2003a) argued, are affected positively by trust in the government and the law system. In this regard, Leonardo (2011) and Cummings et al. (2009) reported that the quality of the public governance has a significant positive association with tax moral, whereby increasing the willingness to comply is related with a higher quality of the public governance. Therefore, democratic states showed a positive relationship between the democratic values and trust in the government and tax moral.

Therefore, moral of the taxpayers must be taken into account when examining the tax compliance behaviour, since it is one of the factors that could explain compliance behaviour levels that are higher than those expected through the economic theory (Christian & Alm, 2014). On the other hand, Blumenthal, Christian and Slemrod (2001) argued that the taxpayers who have tax moral have a higher tendency towards tax non-compliance. Similarly, Fellner, Sausgruber and Traxler (2013) reported that the moral value does not lead to increasing the compliance. Ariel (2012) also revealed that the moral persuasion did not improve the tax compliance (Ching, 2013). In Jordan, Slehat (2009) found that tax moral has a negative relation with tax compliance. In the context of sales tax, prior studies found that there are positive

relationship between tax moral and sales tax compliance (Woodward & Tan, 2015; Webley et al., 2004; Adams & Webley, 2001).

On the basis of the above discussions, the relationship between tax moral and income tax compliance still needs further examinations to be confirmed. However, the majority of the researches on tax moral and tax compliance have focused on income tax, whereas sales tax compliance has received very limited interest. In addition, tax moral and tax compliance have been examined at the individual level, whereas SMEs' tax compliance with tax moral has been neglected. This is supported by Alm and McClellan (2012) who stated that the potential importance of firm tax moral has been ignored, perhaps because of the absence of firm-level information that would allow a firm's tax moral to be measured. Therefore, more studies are required to determine the relation between tax moral and sales tax compliance since tax moral is one of the main determinants of tax compliance behaviour. Also, to the best knowledge of the researcher, no study has been conducted on the relationship between tax moral and sales tax compliance behaviour of SMEs in the Middle East and Arab countries. Therefore, there is a need for more studies to be conducted on this relationship, especially in Jordan.

### **3.5.6 Tax Fairness**

Tax fairness is one of the main factors of a good tax system (Thomas, 2012) and is considered one of the main determinants of tax compliance (Jackson & Milliron, 1986). It is widely believed by tax administrators and the taxpayers that growing

dissatisfaction towards the fairness of tax system is the major causes behind the increase of the tax non-compliance (Chau & Leung, 2009). Tax fairness consist of two dimensions. The first dimension appears to include the fairness of the commerce and the interest received for tax given, whereas the second dimension appears to comprise the justice of the taxpayer's burden in relation to other taxpayers (taxpayers understanding of the vertical and horizontal fairness of the tax laws) (Jackson & Milliron, 1986).

The fair tax system is based on three elements, namely country legitimacy, the motivation of taxpayers compliance to pay their tax, and the performance of the tax department (Ajaz & Ahmad, 2010). The present study defines tax fairness as the fair distribution of sales tax registration threshold and sales tax penalties that are imposed by tax authority, as well as the cost on the sales tax registered.

Ulbig (2002) and Samuel and Dieu (2014) reported that fairness of tax departments and the governmental procedure lead to instilling trust in the community and convincing the taxpayers that the tax laws is fair, and in turn, this leads to tax compliance. This finding is supported by other prior studies (e.g., Muche, 2014; McKerchar et al., 2013; Ross & Mcgee, 2012; Kirchler & Wahl, 2010; Feld & Frey, 2007; Mikesell & Birskyte, 2007; Bryan, 2000; Chan et al, 2000; Alm et al., 1992; Alm, 1991; Snavely, 1990).

On the other hand, Ajaz and Ahmad (2010) asserted that the public governance leads to increase tax fairness, thus increasing the tax compliance. They argued that the public governance produces a good tax system. According to Jayawardane (2015)

and Tan and Chin-Fatt (2012), a good tax system should be designed on the basis of a suitable group of principles, such as fairness and confidence. Consequently, Berkeley (2006) and Cummings et al. (2009) argue that tax compliance is increased when the perception of the taxpayers about fair fiscal exchange is also increased.

In other related studies, Mukhlis et al. (2014) and Maseko (2014) pointed out that the perceptions of SMEs towards tax fairness influence tax compliance decisions. In contrast, Faa (2008) found that the fairness of the tax system has an insignificant relationship with tax compliance; this finding is supported by other prior studies (e.g., Azmi et al., 2016b; Mohamed, 2016; Enginda & Baisa, 2014; Palil et al., 2012; Benk, Çakmak & Budak, 2011; Abdul-Jabbar, 2009). On the other hand, Tumwesigye (2011) revealed a significant negative correlation between tax fairness and tax compliance. In Jordan for example, Muhamm (2004) declared that the tax unfairness positive related with income tax evasion. Also, Khasawneh, Obeidat and Al-Momani (2008) found that the fairness of the system tax has a positive relationship with the income tax compliance. In the same line, Slehat (2009) indicated that the tax fairness has a positive correlation with income tax evasion. In the context of the indirect tax, previous literature revealed that there is a positive relation between tax fairness and sales tax compliance (Woodward & Tan, 2015; Webley et al., 2004; Adams & Webley, 2001). Similarly, Sinnasamy and Bidin (2017b) found that tax fairness has a significant positive relationship with excise duty compliance.

In general, the relationship between tax fairness and tax compliance is still not clear because of the mixed results in the literature. The majority of researches on tax fairness and tax compliance have focused on income tax, whereas few studies have focused on sales tax compliance. Added to the above studies, most of the prior studies have examined tax fairness and tax compliance at the level of individuals, whereas SMEs' tax compliance with tax fairness has received little interest. Therefore, more studies are required to determine the relation between tax fairness and tax compliance. The present study considers tax fairness as one of the main determinants of tax compliance. To the best knowledge of the researcher, no study has been conducted on the impact of tax fairness on sales tax compliance of SMEs in the Middle East and Arab countries, especially Jordan. Therefore, there is a need for more studies to be carried out on this relationship.

### **3.5.7 Peer Influence**

Peer influence is a portion of the attitudes and perceptions in Fischer's model. The term peers are defined generally as a taxpayer's associates that can be relatives, friends, co-workers and colleagues (Jackson & Milliron, 1986). Peer groups have a potent effect on preferences, behaviour and personal values of taxpayers (Puspitasari & Meiranto, 2014). Hence, Lefebvre, Pestieau, Riedl and Claire (2015) reported the significance of not ignoring the presence of peer impact when examining the tax compliance behaviour. Chau and Leung (2009) stated that peers' influences are reflected in taxpayer's anticipations in relation to the disapproval or approval of tax non-compliance, whereas Alm and McKee (1998) declared that the social norms are

a major determinant of tax compliance. The present study defines peer influence as the effect of people who are significant for SMEs' owner-managers on their sales tax compliance decision, thus contributing in shaping their attitude towards sales tax compliance.

From a socio-psychological perspective, a taxpayers' behaviour is defined by social norms to a considerable extent (Edlund & Aberg, 2002) which assist in determining tax obligation intentions (Bobek, Roberts & Sweeney, 2007). These social norms are four types. First, the personal norms are one's own self-based anticipations and standards of suitable behaviour. Second, the descriptive norms are criteria that develop through monitoring how others indeed behave in special statuses. Third, the injunctive norms are standards that determine what must be done, characterizing what the group disapproves or approves (e.g. community may sanction tax non-compliance as highly unethical). Finally, the subjective norms are related particularly to the anticipations of significant others (e.g. Friends, family, coworkers) ( Onu & Oats, 2014; Bobek et al., 2013; Bobek et al., 2007).

Added to the above studies, Maxwell (2002) pointed out that peer norms help define whether a behaviour is undesirable or desirable. In SMEs, peers have influences on tax obligation behaviour of their counterparts, and SMEs will evade tax payment if they felt that their peers were evading with punishment (Maseko, 2014; Omweri, Miqwi & Obara, 2010). Hence, a taxpayer is affected by the perception of the behaviour of other peer's taxpayers. In contrast, if the taxpayers think others to

be honest, tax moral rises (Frey & Torgler, 2007). However, the relation between tax compliance and social norms are complex (Kirchler et al., 2008).

Some previous studies on tax compliance behaviour found a positive relation between tax compliance and peer influence (e.g., William, 2015 ;Bobek et al., 2013; Çevik & Yeniçeri, 2013; Tusubira & Nkote, 2013; Benk et al., 2011; Omweri et al., 2010; Saad, 2009; Faa, 2008). On the other hand, some other studies on tax compliance behaviour found a negative relation between tax compliance and peer influence (e.g., O'Shaughnessy, 2014; Alon & Hageman, 2013; Palil et al., 2012; Torgler, 2012; Frey & Torgler, 2007). However, some other studies declared that the peer influence has no impact on the tax reporting decisions (Wenzel, 2004a; Chan et al., 2000; Hite, 1988).

In a similar context, Bidin and Idris (2007) conducted their study in the context of zakat compliance and found that peer influence had an insignificant effect on compliance. Sinnasamy, Bidin and Syed-Ismail (2015) indicated that there are inconsistent results regarding the peer influence on tax compliance behaviour. In the context of the indirect tax, past literature pointed out that there is a positive relationship between peer influence and sales tax compliance (Woodward & Tan, 2015; Webley et al., 2004; Adams & Webley, 2001). In contrast, Sinnasamy and Bidin (2017a) found that peer influence has a significant negative relationship with excise duty compliance.

In sum, the relationship between peer influence and tax compliance showed inconsistency in the literature, and the relationship between peer influence and sales

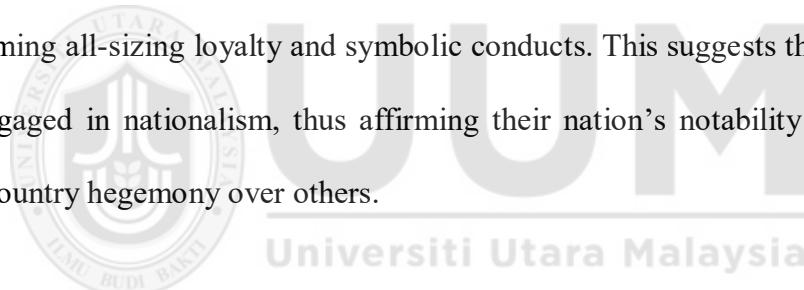
tax compliance is also not clarified in the prior studies. Most of studies on peer influence and tax compliance have examined income tax, whereas sales tax compliance has been ignored. In addition, the majority of prior studies have examined peer influence and tax compliance at the individual level, whereas SMEs' tax compliance with peer influence has received a limited interest. Consequently, more studies are needed to determine the relationship between peer influence and sales tax compliance since peer influence is one of the primary factors influencing tax compliance behaviour. Because no study has been conducted on the relationship between peer influence and sales tax compliance behaviour of SMEs in the Middle East and Arab countries, there is a need for more studies to confirm this relationship, specifically in Jordan.



### **3.5.8 Patriotism**

Patriotism implies love of one's country (Callan, 2006). The patriotism of taxpayers could probably motivate a higher payment of taxes in the country. This patriotism prohibits the individuals' inclination to move abroad in reaction to increasing the tax rate, and this reduction in the flexibility of the tax base enables the countries to demand a higher level of taxes (Qari, Konrad & Geys, 2012). Thus the taxpayers' love of their state and their wish for it to flourish are illustrated by their tax payment performances (Kahne & Middaugh, 2006). Feelings of patriotism sometimes play a significant role in all aspects, particularly in tax compliance field (Qari et al., 2012). Therefore, Tajfel (1974) stated that one helpful explanation of patriotism and its impacts are presented by the social identity theory.

The current study defines the patriotism of SMEs' managers as an affective attachment feelings and positive identification represented in paying more sales taxes, rather than being fraudulent by hiding sales tax revenue needed to develop the country. Regarding the influence of the patriotic obligations on democracy predominantly highlights a critical distinction among constructive and blind patriotism according to Kahne and Middaugh (2006). Based on their study, constructive patriotism refers to applauding some work by the government and exposing and criticizing others in an attempt to encourage favourable alteration and consistency. On the other hand, blind patriots foster an attitude of unquestioning approval of their state and the refusal to analyse and value criticism by generally confirming all-sizing loyalty and symbolic conducts. This suggests that blind patriots are engaged in nationalism, thus affirming their nation's notability and supporting their country hegemony over others.



There are differences between nationalism and patriotism (Federico, Golec & Dial, 2003; Druckman, 1994); patriotism as a love of state cannot be obviously tied to a specific conflict schema. In some issues, it may even reveal a conflict schema, thus composing a more favourable cooperation path with other nations. Accordingly, patriotism is not linked to hostility towards other countries or "outsiders" inside the nation. In contrast, nationalism is defined as a form of racism toward ethnicity that merges with the positive sensation toward the nationality and hostility towards other national groups. Hence, nationalism is related with passivity towards foreign states,

outsider's resident inside one's own country and a desire towards hegemony with other nations.

Ben-Porath (2012) said that the term 'patriotism' is used to refer to a morally preferable form of attachment to a political community. For example, one that is inclusive and respectful of the basic rights of individuals and groups, while 'nationalism' is used to refer to intolerant, exclusionist, or violence. Costa (2018) indicated that the distinction between patriotism and nationalism is usefully drawn in terms of their objectives is that many countries contain more than one nation within their borders, and some nations extend into more than one state. As a consequence, the targets of patriotic and nationalist do not always coincide. Furthermore, the most useful way to draw the distinction between patriotism and nationalism that focuses on their objectives of loyalty; patriotism is loyalty to a country while nationalism is loyalty to a people. In addition, patriotism has as its objective an institutionalized political community such as a country, and it includes special concern with fellow citizens who already share specific legal and political institutions. In contrast, nationalism has as its object a group of people who share a certain sense of common identity.

Konrad and Qari (2012) indicated the vital role played by patriotism to motivate the taxpayers to promote the government's stability through the Second World War. The interest in the impacts of patriotism on tax obligation has increased at times of wars and conflicts, whereas the level of patriotism decreases in peace. In the last decade, there was a public discussion in US regarding taxation and patriotism, especially

through presidential election campaign in 2008. At that time, the Vice Presidential candidate Joe Biden indicated that Americans pay their taxes as a patriotic obligation. Similarly, the Presidential Candidate Senator John Kerry stated that taxes depend on patriotism (Macgregor & Wilkinson, 2012).

The effect of patriotism was also supported by Ochulor (2011) who stated that the patriotism leads to economic revival and national development. Similarly, Doerrenberg et al. (2014) reported that patriotic people have the willingness to pay for public transportation in their country. Kornhauser (2007) indicated that internally motivated tax obligation behaviour originates from intrinsic personal norms, such as patriotism. However, Wynter (2014) asserted that taxpayers should have apatriotic value towards tax payment.

MacGregor and Wilkinson (2012) stressed on the importance of patriotism of taxpayers since it has a positive relationship with increasing the tax compliance. However, patriotic taxpayers consider tax non-compliance activities as unpatriotic. This is similar to the findings revealed by Konrad and Qari (2012). On the other hand, Gangl et al. (2016) finds that patriotism has no significant direct relation with tax compliance, but it has indirect by having trust in the tax authority and voluntary cooperation. Based on the above discussion, there are very few empirical studies on the relation between patriotism and tax compliance, and all studies have been carried out in the countries of OECD.

In brief, patriotism is a very important factor in tax compliance behaviour. Nevertheless, previous studies on patriotism and income tax compliance have been limited. To the best knowledge of the researcher, no study has focused on the relationship between patriotism and sales tax compliance. In addition, prior studies have examined patriotism and tax compliance at the individual level, whereas SMEs' tax compliance relationship with patriotism has been largely ignored. Therefore, more studies are required to determine the relation between patriotism and sales tax compliance of SMEs in the Middle East and Arab countries.

### **3.5.9 Public Governance**

The public governance concept was introduced in 1989 World Bank report on Africa that described it as the use of political power to manage the affairs of the nation (Sardar, 2011). Following its inception, in the 1990s, the public governance has been considered as a part and parcel of the economic development (Mohammed & Strobl, 2010). This was when the international aid agencies were convinced that ineffective governance throughout several developing nations acted as a barrier to the development of their economies (Ngobo & Fouada, 2012). In this regard, the World Bank (1994) defined the governance concept as the employment of the economic, political and administrative authority for the management of the affairs of the country at different levels.

Public governance is the practice of administrative, economic and political authorities to administer the 'state affairs at all levels. It includes institutions,

mechanisms, and processes, through which people and groups express their interests, practice their rights, meet their obligations and go between their differences. Administrative governance is the method of policy enforcement. The economic governance comprises decision-making procedures that affect a state's economic activities and its relations with other economies, whereas the political governance is the style of decision-making to formulate policy (Elahi, 2009).

In addition, Dellicour and Sacaze (2012) demonstrated that the growth of the economy, investment and trade are largely dependent on the public governance as development and the elimination of poverty requires the employment of factors aside from aid among the top required factors are economic growth and social justice. Hope (2009) pointed out that the public governance is the presence of political accountability, bureaucratic transparency, within the state, along with the exercise of legitimate power, freedom of association and participation, freedom of information and expression, effective fiscal management and public financial accountable, and lastly, respect for the rule of law.

In a related study, Kalsi, Kiran and Vaidya (2009) revealed that the public governance has different factors contributing to it, including good education, basic infrastructure development, such as roads, bridges, power, telecom, airports, irrigation, transport, safety of life, property and peaceful law and order, creation of new jobs, opportunities in the private sector and government, government's effectiveness and efficiency, good business environment characterized by free-market economy, minimized digital divide and positive societal aspects, freedom of

speech, freedom of religion, freedom of work and government's non-interference, and readiness of citizens to pay for good services.

Prior literature has not indicated a specific definition of the public governance that can cover all of its various aspects. Therefore, the public governance is a set of comprehensive procedures by the governmental authority, which aims to meet various targets such as freedom, fair election, good laws, fairness of Justice, high quality of general infrastructure, an education system, care of health, combating crime, integrity, financial honesty, anti-corruption and political stability. However, different studies indicated major attributes that differentiate between a good from bad governance (Pasape, Anderson & Lindi, 2015). The differences between good and bad governance is summarised in appendix H.

The question then arises regarding the relationship between the quality of public governance and tax compliance behaviour. Citizens show their support towards the government carrying out its responsibilities by providing finance through payment of taxes. Hence, the taxpayers should be concerned with what is happening in the government as the former provides financial sustenance, and ultimately, the governance affairs may have a positive or a negative impact on the adherence of the citizens to pay taxes (Alabede, 2012).

To clarify the unjust action regulation, anti-corruption laws and ethical codes have been set up in the public administrations, because with the occurrence of corruption and unethical actions, lack of trust in the government will arise as people are dissatisfied and they complain about taxes, thus leading to a lower rate of compliance

(Walle, 2008). In relation to this, the government program mechanism in redistributing the tax revenues has a significant impact on tax compliance; if the redistribution is positive, compliance is high, whereas when the redistribution is negative, the compliance is low (Doerrenberg, 2015; Fochmann & Kroll, 2015; Li, Eckel, Grossman & Brown, 2011). A study Torgler and Schneider (2009) illustrated that the promotion of the government's effectiveness would lead to taxpayers' compliance towards the tax law.

Bribery among the governmental officials is considered a social phenomenon that can lead to the significant lowering of tax revenue, and eventually the detrimental growth and development (Ajaz & Ahmad, 2010). Along a similar line of argument, Kennedy, Emmanuel and Izedonmi (2012) indicated that the perception of the government's accountability by the citizens results in the emergence and maintenance of tax morale that eventually leads to voluntary tax compliance. Such compliance enhances the public governance quality.

As a result, as illustrated by Alabede et al. (2011), enhancing the public governance quality would significantly contribute to supporting the culture of tax compliance among the taxpayers. Torgler and Schneider (2007) also reported that the public governance is a factor that influences informal and formal economic activities and the political system. Everest-Phillips and Sandall (2009) argued that the taxpayer's perception of the governance quality may influence the tax fairness, tax moral and voluntary compliance. Sá, Martins and Gomes (2015) confirmed that the tax moral increases when the confidence of the taxpayers in parliamentary, democracy,

political participation, judicial system and political system increases. Added to the above studies, Torgler (2003) asserted that the deviation of democracy will lead to increase tax non-compliance, whereas Teymur and Saman (2012) declared that the control of corruption leads to increasing tax compliance.

In this regard, Picur and Riahi-belkaoui (2006) expressed that when the government increases control of corruption and decreases bureaucracy, tax compliance will be higher. This is particularly crucial for developing countries. However, the economic growth may be drastically obstructed by reducing the government's revenues because of tax non-compliance. McGee (1999) indicated that tax non-compliance is not difficult because there is no effective tax system to collect taxes and there is a diffused feeling that (citizens) taxpayers are not willing to pay taxes to the government because of its non-delivery of services. On the other hand, Feld and Tyran (2002) and Torgler (2005) reported that participation of the taxpayers in voting and practice of democratic activities are positively linked with the rise of tax compliance.

On the other hand, Fauvelle-Aymar (1999) suggested that the democracy of the governments has a negative relation with tax compliance; he indicated that autocratic governments have a higher level of tax compliance compared to tax compliance of the democratic governments. Fochmann and Kroll (2015) found an inverse connection that is u-shaped of the contribution of the public good and tax obligations. In other words, tax commitment decreases with the increase of the public good contribution. Zaied (2009) found a positive association between the

confidence in the government and tax evasion. Park and Hyun (2003) showed that an increase in the government's expenditure leads to less tax compliance, thus leading the taxpayers to have a big tendency towards a free-ride

In studies by Enginda and Baisa (2014) and Palil et al. (2012), it was found that the perception towards the government's expenditure is not a significant connection with tax compliance. Similarly, Chandarasorn (2012) argued that the perception of the public governance is insignificant as taxpayers cannot notice the immediate correlation when they are making tax obligation decision. In addition, Alon and Hageman (2013) stated that the quality of the government's service was not related to the degree of tax compliance. Hence, Ching (2013) found that the relationship between the public governance quality and tax compliance is insignificant.

Razak and Adafula (2013) showed that the level of transparency and the government's accountability have insignificant relation to the tax compliance decision. This finding was also reported by Siahaan (2013). Machogu (2015) declared that the quality of the government did not support the culture of obligation among taxpayers, and Akdede (2006) found that the size of bribery and corruption can positively impact tax compliance.

In the context of Jordan, a series of street protests have demonstrated since 2011 calling for improving the public governance, increasing the democracy, and end the corruption. The Centre for Strategic Studies of the University of Jordan conducted a study and found that favoritism, corruption, weak justice, nepotism and low democracy are among the main obstacles that challenge the country's development.

The study also illustrated that more than two-thirds of the citizens in Jordan do not trust the government (Johnsson & Martini, 2012). Thus the public governance's role is not clear on tax compliance in the Jordanian context.

In the same vein, the United States Agency for International Development [USAID] (2017), has shown the challenges that are faced by the Jordanians citizens. These included the freedom of the press, political participation, and reducing the legislative space for the society of civil, institutions responsible for public governance weakness in its ability to respond fully to the needs of citizens, citizen participation is limited, especially among youth, women and people with disabilities, the media and civil society organizations practice very weak social and political influence, further hampering citizen participation. As a result, the Jordanian citizens enjoy very few chances to provide input on matters and issues influencing their daily lives. To the best knowledge of the researcher, no study has been conducted in the Jordanian context to address the role of the public governance in explaining the tax compliance behaviour.

### **3.5.10 Demographic Variables**

The tax obligation behaviour literature suggests that the demographic variables play a vital role in the obligation behaviour of taxpayers (Devos, 2008; Bird et al., 2008). In Fischer's model, it was proposed that the demographic variables indirectly influence the taxpayer's obligation behaviour through their effect on perceptions, attitudes, and non-compliance opportunities (Bruce-twum, 2014; Chau & Leung,

2009). The taxpayers' age is one of the most common influencing demographic variable (Chau & Leung, 2009). Age is also one of the demographic factors that affects the tax compliance of sole-proprietor (Hai & See, 2011). In addition, age is considered one of the prime factors influencing the compliance of taxpayers (Jackson & Milliron, 1986). In relation to this, Witte and Woodbury (1985) found a significant positive relationship between older taxpayers and tax compliance behaviour.

Other studies also supported the positive relationship between older taxpayers and tax compliance (Lago-Peñas & Lago-Peñas, 2010; Cummings et al., 2009; McGee & Tyler, 2006; Richardson, 2006a; Devos, 2005; Torgler, 2005; Torgler, 2004; Hanno & Violette, 1996). In contrast, Clotfelter (1983) found that young and old taxpayers were more compliant compared to the middle old aged taxpayers. Similarly, Manaf et al. (2005) found that the middle aged and older taxpayers have more compliance compared to the young ones. However, In Enginda and Baisa's (2014) study, it was found that older taxpayers were more tax non-compliant. On the other hand, McGee and Ross (2014) and Slehat (2009) indicated that the taxpayer's age does not have a significant relation with tax compliance.

Regarding gender, it is also one of the determinants of tax compliance (Hasseldine, 2002; Jackson & Milliron, 1986). Some previous studies found that women are more tax compliant compared to men (Lago-Peñas & Lago-Peñas, 2010; Torgler & Valev, 2010; Alm & Torgler, 2006; Torgler, 2006; Chung & Trivedi, 2003; Hasseldine & Hite, 2003; Hanno & Violette, 1996; Vogel, 1974). In addition, Kasipillai and Abdul-Jabbar (2006) indicated that gender has a direct effect on the obligation attitude. On

the other hand, some studies found that women are more tax evader compared to men (Kirchler & Maciejovsky, 2001; Friedland et al, 1978). In contrast, Richardson (2006a, 2006b) pointed out that there is an insignificant relation between tax compliance and gender. For instance, in Jordan, Slehat (2009) reported that gender has an insignificance correlation with the income tax compliance.

Education is also one of the demographic factors that influences tax compliance (Mukhlis et al., 2014; Jackson & milliron,1986). The effect of education on tax compliance deserves particular attention (Lago-Peñas & Lago-Peñas, 2010). Previous studies found that the level of education has a negative relation with tax compliance (Torgler & Schneider, 2007; Alm & Torgler, 2006; Mcgee & Tyler, 2006). In contrast, taxpayers who have received middle-level of education are more inclined to tax payment (Manaf et al., 2005). Hence, prior studies found that the level of education has a positive relation with tax compliance (Torgler, 2005a; Park & Hyun, 2003). On the other hand, Mcgee and Ross (2014) and Song and Yarbrough, 1978) reported that the level of education does not have a significant relation with tax compliance. However, in the context of Jordan, Slehat (2009) found that the educational level has a negative association with tax evasion.

Regarding the level of income (sales turnover), it is also one of the determinants in explaining tax compliance behaviour in Fischer's model. The level of income is considered as gross income or profits of a taxpayer (Jackson & Milliron, 1986). Tax compliance was found to increase with the income level but at a lower tax rate ( Ali et al., 2001). Park & Hyun (2003) pointed out that individuals who pay taxes have

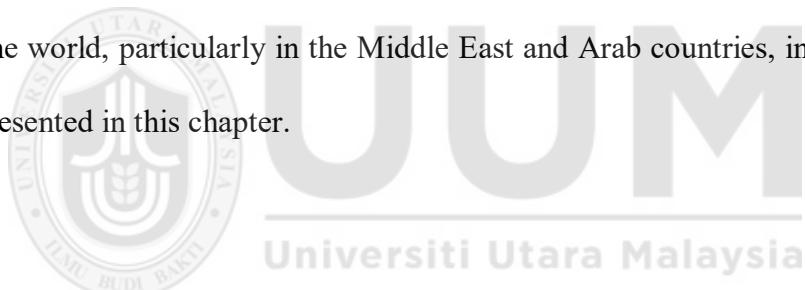
the same level of compliance despite of their income levels. In this regard, Chang and Schultz (1990) indicated that tax compliance has a positive association with the income level.

On the other hand, Hamm (1995) found that the tax compliance has a negative relation with the level of income, whereas Andreoni et al (1998) found that increasing the income level corresponds with decreasing tax compliance. However, in Wong's (2008) study, it is argued that the income level has an indirect link with tax compliance. Witte and Woodbury (1985) declared that lower levels of tax compliance are associated with upper and middle-income groups, whereas Hanno and Violette (1996) asserted an uncertain link between tax compliance and the level of income. Park and Hyun (2003) reported that the income levels of taxpayers have the same level of tax obligation.

According to Kiri (2016), the reason behind the inconsistencies of the findings may lie in the special context of each country, whereby the characteristics and the conditions are different. The characteristics of the country encompass economic, social and environmental features. In sum, the relationship between the demographic variables and sales tax compliance has not been clarified in the prior studies and inconsistencies of the results have been demonstrated. In addition, no study has been conducted on the relationship between the demographic variables and sales tax compliance. Therefore, more studies are required to determine the relation between the demographic variables and sales tax compliance behaviour in the context of the Middle East, specifically in Jordan as an Arab country.

### **3.6 Summary of the Chapter**

In brief, this chapter introduced the literature relevant to the research as supported by two main theories, mainly the deterrence theory and the socio-psychology theory. The review of the literature led to the suitable integration between two main theories as this could offer a sufficient clarification about the factors influencing tax compliance behaviour. Therefore, theories from various sources could be beneficial in explaining the tax compliance phenomenon. In reviewing the determinants of tax compliance, the economic as well as the social-psychological factors were focused on along with public governance and patriotism. Besides, some available literature on both the income tax compliance and sales tax compliance in different contexts all over the world, particularly in the Middle East and Arab countries, including Jordan, was presented in this chapter.



## CHAPTER FOUR

### METHODOLOGY

#### 4.1 Introduction

This chapter discusses the development of the conceptual framework and the research methodology of the study. The first part of the discussion leads to a conceptual research framework. The second part outlines the research hypotheses that correspond to the specified research objectives. The last section focuses on the research design and strategy employed in providing answers to the research questions by describing the research approach, unit of analysis, population, sampling frame, sample size and selection, providing measurements of the variables study, explaining the survey instrument as well as the techniques of data analysis, and finally the chapter summary.

#### 4.2 Research Framework

The objective of this study is to examine the determinants of sales tax compliance of SMEs. The research framework of the current study illustrates the relationship among the variables, which was derived from the extended Fischer's model, involved eight independent variables, one dependent variable and one moderating variable. The current study utilizes sales tax compliance as a dependent variable, while the independent variables are tax complexity, tax audit, tax rate, tax penalty, tax moral, tax fairness, peer influence and patriotism. This study also introduces public

governance as a moderating variable effect the associations between tax complexity, tax audit, tax rate, tax penalty, tax moral, tax fairness, peer influence and patriotism with sales tax compliance as shown in Figure 4.1.

The framework of the current study is built on the Fischer's model that is considered a comprehensive model which incorporates economic, sociological and psychological factors. Nonetheless, a few variables have been omitted as they are appropriate to the income tax at the individual level. By using Fischer's model as a base, some researchers have added one or more variables to the model to suit their research objectives (e.g., Alabede, 2012; Chau & Leung, 2009; Manaf, 2004; Hanefah, 1996). Despite the various expansions on the Fischer's model, no research to date has examined the effects of patriotism as an independent variable and public governance as a moderator on sales tax compliance of SMEs. Thus, these social-related factors could be among the importance of these factors in understanding sales tax compliance especially in the context of Jordan.

However, the tax compliance model was expanded with patriotism as a construct. Public governance also introduced into the model as a moderating variable. The need to expand the tax compliance model by this construct and moderating variable was derived from the suggestions of previous studies and scholars (Alshira'h, Abdul-Jabbar & Samsudin, 2018; Umar, Derashid & Ibrahim, 2016; Gangl et al., 2016). A multitude of determinants might cause the low level of sales tax compliance of SMEs in Jordan; thus, the relevance of public governance and patriotism cannot be underestimated.

The sales tax noncompliance behaviour of Jordanian SMEs may perhaps be an indication that managers are not satisfied with the public governance in Jordan, or that they have no patriotism or love of their country. The social exchange theory and social identity theory as a part of socio-psychological approach provides justification for their behaviour. The social exchange theory posits that associations between parties are based on the benefits and costs for it to continue so these associations must be rewarding to all parties. Thus, governments of countries with good public governance are more likely to enjoy public acceptance for the need for taxation than governments of countries with poor public governance. Social identity theory has a great impact on responsibility and tax compliance of citizens. Thus, a love of nation and a feeling of responsibility toward it may encourage them to assist and support their country by taxation.

Generally, the framework (See Figure 4.1) is built on the integration of both economic and socio-psychological theories (behavioural and economic). The socio-psychological theory assumes that taxpayers do not depend on a selfish utility, while the economic theory assumes that a taxpayer is rational and thus will always maximize the expected utility of the tax evasion.

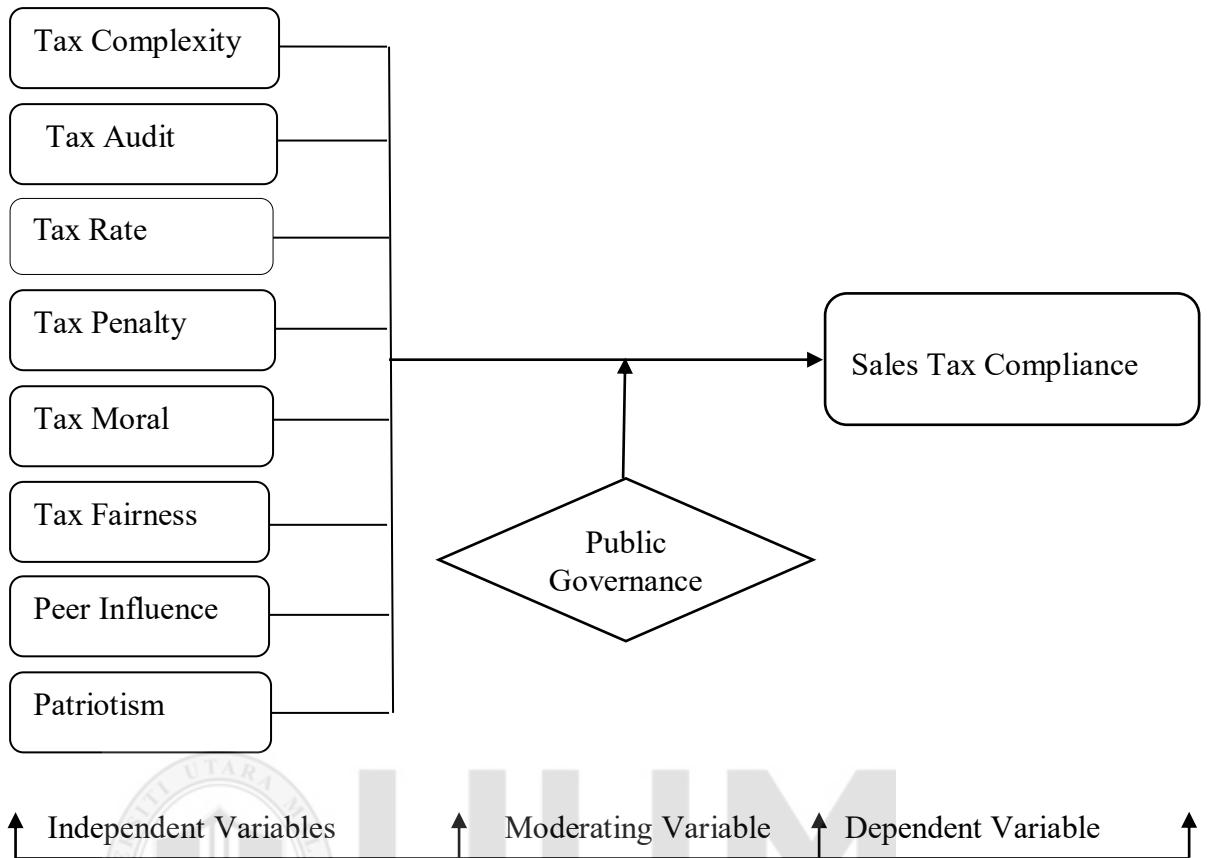


Figure 4.1  
*Research Framework for Sales Tax Compliance*

### 4.3 Hypotheses Development

This section provides justifications for the variables adopted in this study based on the existing literature. The variables under consideration are tax complexity, tax audit, tax rate, tax penalty, tax moral, tax fairness, peer influence and patriotism as independent variables, public governance as the moderating variable and sales tax compliance as the dependent variable. Sekaran (2003) said that a hypothesis is considered to a logical assumed association between two or more variables expressed in the form of a testable statement.

Recent studies have expressed an increased interest in research examining the economic and socio-psychological factors on income tax while, very little study has examined the impacts of economic factors and socio-psychological factors on sales tax. In addition, no research to date has examined the economic and socio-psychological factors on sales tax in Middle Eastern and Arab countries. However, some researchers have based their studies on direct tax to develop their research on indirect tax such as Bidin, Sinnasamy, and Ismail. (2016), Woodward and Tan (2015) and Faridy et al. (2014). Therefore, most of the hypotheses have been based on direct tax. Hence, the developments of hypotheses on sales tax are discussed in the following sub-sections.

#### **4.3.1 Tax Complexity and Sales Tax Compliance**

The perceived views of tax complexity have a major effect on compliance behaviour (Richardson, 2006a). A large majority of previous studies on tax compliance behaviour have found a negative relationship between tax complexity and tax compliance behaviour (Mansour, 2015; Woodward & Tan, 2015; Faridy et al., 2014; Muche, 2014; Oyewole et al., 2014; Brainyyah, 2013; McClellan, 2013; Feld & Schneider, 2011; Abdul-Jabbar, 2009; Salleh, 2009; Kirchler et al., 2008; Warren & McManus, 2007; Abrie & Doussy, 2006; Cuccia & Carnes, 2001). Some prior studies have found an insignificant relationship between tax complexity and tax compliance behaviour (Azmi et al., 2016b; Biabani & Amezani, 2011; Morse et al., 2009; Adam & Steven, 2002; Fauvelle-Aymar, 1999), while others have found a positive relationship between tax complexity and tax compliance (Yahaya, 2015;

Christie & Holzner, 2006). Hence, based on the above findings and drawing from the socio-psychological theory, the following hypothesis is proposed:

**Hypothesis 1:** *There is a negative relationship between tax complexity and sales tax compliance*

#### **4.3.2 Tax Audit and Sales Tax Compliance**

Deterrence theory has posited that tax audit has a positive relationship with tax compliance (Allingham & Sandmo, 1972). Some studies have confirmed that the relationship between tax compliance and tax audit is positive (Inasius, 2015; Woodward & Tan, 2015; Modugu, 2014; Feld & Larsen, 2012; Naibei et al., 2012; Abdul-Jabbar, 2009; Alm & McKee, 2006; Witte & Woodbury, 1985; Spicer & Hero, 1985). In contrast, some other previous studies have found that the relationship between tax audit and tax compliance is negative (Palil et al., 2012; Tumwesigye, 2011; Slehat, 2009; Slemrod et al., 2001; Saruc, 2001), while other studies have found that no relationship existed between tax audit and tax compliance (Muche, 2014; Faridy et al., 2014; Tehulu & Dinberu, 2014; Modugu et al., 2012; Faa, 2008; Murray, 1995). Fischer et al (1992) found that outcomes of the relationship between tax audit and tax compliance were inconsistent. Based on the foregoing discussion and drawing from the deterrence theory, the following is hypothesised:

**Hypothesis 2:** *There is a positive relationship between tax audit and sales tax compliance*

### 4.3.3 Tax Rate and Sales Tax Compliance

The deterrence theory posits that the tax rate has a significant relationship with tax compliance (Allingham & Sandmo, 1972). However, past literature found mixed results. Some studies have indicated a positive direction, and other studies have indicated a negative direction. However, the majority of the studies have found that the relationship between tax compliance and tax rate was negative (e.g., Inasius, 2015; Hauptman et al., 2014; Mukhlis et al., 2014; Kuehn, 2014; Pellizzari & Rizzi, 2014; Seren & Panades, 2013; Bărbuță-Mișu, 2011; Matthews, 2003; Ali et al., 2001; Alm & McKee, 1998; Agha & Haughton, 1996; Reckers et al., 1994; Friedland et al., 1978). On the other hand, prior studies also found that the relationship between tax rates and tax compliance was positive (e.g., Luitel, 2005; Engel et al., 2001; Alm et al., 1995; Feinstein, 1991; Yitzhaki, 1974). Lastly, some previous studies have revealed an insignificant association between tax rate and tax compliance (Modugu et al., 2012; Kim, 2008; Richardson, 2006a; Park & Hyun, 2003; Baldry, 1987). Hence, based on the above findings and the deterrence theory, the following hypothesis is proposed:

**Hypothesis 3:** *There is a negative relationship between the tax rate and sales tax compliance*

### 4.3.4 Tax Penalty and Sales Tax Compliance

Penalties are part of the tax system structure and an important factor with respect to tax compliance (Chau & Leung, 2009). Allingham and Sandmo (1972) reported that the tax penalty has a positive relationship with an increase in tax compliance. Some

studies also have supported a positive relationship between tax penalty and tax compliance behaviour (Ng & Muturi, 2015; Woodward & Tan, 015; Engida & Baisa, 2014; Yoon, Yoo & Kim, 2011; Arcand & Graziosi, 2005; Snow & Warren, 2005; Webley et al., 2004; Park & Hyun, 2003; Ali et al., 2001; Kaplan et al., 1997; Witte & Woodbury, 1985), while other studies have indicated a negative connection between tax compliance and tax penalty (Mancharoen, 2015; Feld & Tyran, 2002; Pommerehne & Weck-Hannemann, 1996; Alm et al., 1992). Finally, other past literature has revealed that tax penalties have an insignificant relationship with tax compliance (Engida & Baisa, 2014; Faridy et al., 2014; Mohdali et al., 2014; Enginda & Baisa, 2014; Palil et al., 2012; Feld & Tyran, 2002; Pommerehne et al., 1996; Alm et al., 1992). Therefore, there are inconsistent findings on the effect of tax penalties on tax compliance (Sinnasamy et al., 2015). Hence, based on above discussion and from the tenet of the deterrence theory, the following hypothesis is proposed:

**Hypothesis 4:** *There is a positive relationship between tax penalty and sales tax compliance*

#### **4.3.5 Tax Moral and Sales Tax Compliance**

Tax moral is a major factor influencing tax compliance (Jackson, Million, 1986). Some previous studies on tax compliance have found a positive relationship between tax morals and tax compliance behaviour (Lisi, 2015; Loureiro, 2014; Woodward & Tan, 2015; Nabaweesi, 2013; Torgler et al., 2010; Torgler et al., 2007; Cummings et al., 2009; Riahi-Belkaoui, 2004; Webley et al., 2004; Adams & Webley, 2001; Witte & Woodbury, 1985). In contrast, Blumenthal, Christian and Slemrod (2001) argued

that taxpayers with sound tax morals are likely to default when facing financial stress or have had an experience with someone with similar tax morals but who evaded tax. Fellner, Sausgruber, and Traxler (2013) reported that moral suasion does not lead to increased compliance, which was similar with the findings of Ariel (2012) and Ching (2013). On the other hand, Slehat (2009) found that tax morals have a positive relationship with tax non-compliance. Even though most previous studies have revealed that tax moral was positively associated with tax compliance, other previous literature has found either a negative or no relationship between tax moral and tax compliance. Based on above discussion and drawing from the socio-psychological theory, the current study proposes the following hypothesis:

**Hypothesis 5:** *There is a positive relationship between tax moral and sales tax compliance*

#### **4.3.6 Tax Fairness and Sales Tax Compliance**

Tax fairness is fundamental because tax systems should be perceived as just to obtain a high level of tax commitment. Many prior studies on tax compliance have found a positive relationship between tax fairness and tax compliance behaviour (Fochmann & Kroll, 2015; Woodward & Tan, 2015; Maseko, 2014; Muche, 2014; Samuel & Dieu, 2014; McKerchar et al., 2013; Ross & McGee, 2012; Ajaz & Ahmad; 2010; Kirchler & Wahl, 2010; Cummings et al., 2009; Mikesell & Birskyte, 2007; Feld & Frey, 2007; Mikesell & Birskyte, 2007; Berkeley, 2006; Webley et al., 2004; Ulbig, 2002; Adams & Webley, 2001; Bryan, 2000; Chan et al., 2000; Alm et al., 1992; Alm, 1991). On the other hand, some previous studies have found that tax fairness has an insignificant association with tax compliance (Enginda & Baisa, 2014; Palil et

al., 2012; Benk et al., 2011; Abdul-Jabbar, 2009; Faa, 2008, Antonides & Robben, 1995, Porcano, 1988), while Tumwesigye (2011) found a negative relationship between tax fairness and tax compliance. Sinnasamy et al. (2015) indicated that there are mixed results between tax compliance and tax fairness. Based on above discussion and from the tenet of the socio-psychological theory, the following hypothesis is proposed:

**Hypothesis 6:** *There is a positive relationship between tax fairness and sales tax compliance*

#### **4.3.7 Peer Influence and Sales Tax Compliance**

The term peer influence as referred to in this study means the pressure of business owner-managers on each other as well as social influences. Peer influence includes close friends, family members, current or future employer, and spouse (Hanno & Violette, 1996). The social-psychology theory explains that compliance occurs when a taxpayer accepts influence from another taxpayer or group as they are desirous of achieving a positive reaction from others (Kelman, 1961). Some prior studies have indicated a negative link between tax compliance and peer influence (O'Shaughnessy, 2014; Alon & Hageman, 2013; Palil et al., 2012; Torgler, 2012; Frey & Torgler, 2007). In contrast, other studies have found a positive relationship between tax compliance and peer influence (William, 2015; Woodward & Tan, 2015; Bobek et al., 2013; Çevik & Yeniçeri, 2013; Tusubira & Nkote, 2013; Benk et al., 2011; Omweri et al., 2010; Faa, 2008; Webley et al., 2004; Adams & Webley, 2001). Some literature has revealed that peer influence has an insignificant association with compliance (Wenzel, 2004a; Chan et al., 2000; Hite, 1988). Sinnasamy et al. (2015)

said that there are mixed results in terms of peer influence on tax compliance behaviour. Based on above discussion, although some past literature has indicated that peer influence is positively linked with tax compliance, other prior studies have revealed either no relationship or a negative influence between peer influence and tax compliance. Based on the foregoing discussion and drawing from the socio-psychological theory, the following is hypothesised:

**Hypothesis 7:** *There is a positive relationship between peer influence and sales tax compliance*

#### **4.3.8 Patriotism and Sales Tax Compliance**

The importance of patriotism in the context of tax compliance has been discussed in chapter three. This section highlights the summary of previous literature concerning patriotism with tax compliance to develop the hypotheses. Patriotism means love and sincerity towards the country (Callan, 2006). The patriotism of taxpayers encourages them to pay taxes for their state to contribute to the development and growth of their country (Qari et al., 2012; Ochulor, 2011). Patriotism is one of the intrinsic personal norms that motivate tax compliance (Kornhauser, 2008). Patriotic taxpayers consider tax evasion as an unpatriotic act. Therefore, patriotism is a main factor influencing tax compliance behaviour. Very few studies have been conducted in the context of patriotism and tax compliance, some of them found a positive relationship between tax compliance and patriotism (MacGregor & Wilkinson, 2012; Qari et al., 2012; Konrad & Qari, 2012). Unlike the results in prior studies, Gangl et al. (2016) found no relationship between patriotism and tax compliance. Based on the above

discussion and drawing from the socio-psychological theory, the following hypothesis is proposed:

**Hypothesis 8:** *There is a positive relationship between patriotism and sales tax compliance*

#### **4.3.9 The Moderating Role of Public Governance**

Baron and Kenny (1986) stated that a moderator is a variable that affects the direction and/or strength of the relation between an independent or predictor variable and a dependent or criterion variable. The concern about defining the reasons for tax non-compliance and other illegal actions has increased considerably in recent times. However, research for the causes of this phenomenon has continued (Schneider & Torgler, 2007). Despite some studies having tested many variables as a moderator between tax compliance and its determinants, none have used public governance as a moderator.

In fact, development can only be brought about if cooperation exists between the government and society that meets the desires of citizens. In an ideal world, developing nations require significant funds for such development, and, in this regard, taxation is the most significant funding source that the government can rely on (Andreas & Savitri, 2015). According to the quid pro quo argument, tax compliance is partially dependent on the taxpayers' receiving significant public goods in exchange for their tax payments (Lassen, 2003). Furthermore, tax compliance is motivated by a psychological tax contract the entailing rights and obligations of taxpayers and government, whereby taxpayers are more likely to pay

taxes if they perceive that the public services provided are valuable (Feld & Frey, 2007).

Many prior studies have examined the impact of public governance on tax compliance, some of which have found a positive relationship between public governance and tax compliance (Sá et al., 2015; Teymur & Saman, 2012; Alabede et al., 2011; Everest-Phillip & Sandall, 2009; Picur & Riahi-belkaoui, 2006; Torgler, 2005; Torgler, 2003; McGee, 1999). On the other hand, other prior studies also found the relationship between public governance and tax compliance to be insignificant. (Machogu, 2015; Enginda & Baisa, 2014; Alon & Hageman, 2013; Ching, 2013; Razak & Adafula, 2013; Siahaan, 2013; Chandarasorn, 2012; Palil et al., 2012). However, some other studies have found a negative relationship between public governance and tax compliance (Fochmann & Kroll, 2015; Zaied, 2009; Akdede, 2006; Park & Hyun, 2003; Fauvelle-Aymar, 1999).

Hence, previous studies have found conflicting results with regard to the relationship between public governance and tax compliance suggesting that public governance may have a potential effect. Baron and Kenny (1986) said that a moderator must have a potential effect on the relationship. Therefore, this current study used public governance as a moderator of the relationships between sales tax compliance and its determinants.

Many studies like those of Walsh (2013) and Carnes and Cuccia (1996) found that the relationship between economic variables and tax compliance was inconsistent and several factors could moderate this relationship. Frey and Torgler (2007)

reported that the fairness of the tax system may be determined by public governance. Alm (1999) asserted that the behaviour of taxpayers' compliance relies on the behaviour of other taxpayers, and that the behaviour of other taxpayers may depend on the dealings of the government with them.

McGee (1999) reported that (citizens) taxpayers are unwilling to pay taxes to the government because the government does not do anything for them. Torgler (2007) stated that the morals of taxpayers are not only driven by their ethical rules and principles but probably by their perceptions of public governance and tax authorities. Litina and Palivos (2015) stated that the abuse of government revenue and corruption often provide the ethical justifications for tax non-compliance. Indeed, corruption and tax non-compliance are often highly correlated and persistent.

Konrad and Qari (2009) indicated that patriotism may potentially be an outcome of governmental policy. MacGregor and Wilkinson (2012) stated that the patriotism of the taxpayers might conflict with the desire to pay their tax if they perceive the government is spending the tax revenues frivolously and without benefit for them, so the relationship between the patriotism of taxpayers and tax compliance may be moderated by the influence of public governance. Thus, this current study will also examine the effect of the public governance as a moderator on the relationship between patriotism and sales tax compliance.

A review of previous studies related to taxes in the third chapter revealed that mixed results exists among tax complexity, tax audit, tax rate, tax penalty, tax moral, tax

fairness, peer influence and patriotism and the relationship with tax compliance. In other words, the literature has exhibited mixed results concerning the correlation between tax compliance and its determinants. Hence an ambiguous explanation exists in relationship to the results obtained that a moderator may explain (Kirchler, Muehlbacher, Kastlunger & Wahl, 2007). According to Baron and Kenny (1986), a moderating variable is introduced when an inconsistent relationship is present between two variables. In addition, his majesty king of Jordan remains the country's ultimate authority and wields power over the executive, legislative, and judicial branches. Jordan's central government is headed by a prime minister appointed by the king, who also chooses the cabinet. Therefore, Jordanian people do not participate in choosing the prime minister or members of government and they have no authority to change the government. Only the king has this authority, and, thus, it is very important to discover the taxpayer's perception on government and extent satisfaction with the quality of public governance in Jordan. Consequently, this current study introduced public governance as a moderator of the relationship among sales tax compliance and its determinants.

These studies assume that public governance might contribute to a better understanding of the inconsistent results between the link between tax compliance and its determinants. Furthermore, this study argues that the strength of the relationship between tax compliance and its determinants may be influenced by the taxpayers' perceptions of public governance. According to this argument, it is rational to indicate that the level of public governance perceived by the taxpayers

may affect their behaviour irrespective of whether a tax audit is certain, or the tax rate is high, or whether the tax is complex, or whether the tax penalty, tax moral, tax fairness, peer influence, or patriotism are rising. Hence, the relationship between the tax compliance and its determinants may be moderated by public governance. This leads to the formulation of the following hypotheses:

**Hypothesis 9:** *Public governance moderates the relationship between the tax complexity and the sales tax compliance.*

**Hypothesis 10:** *Public governance moderates the relationship between the tax audit and the sales tax compliance.*

**Hypothesis 11:** *Public governance moderates the relationship between the tax rate and the sales tax compliance.*

**Hypothesis 12:** *Public governance moderates the relationship between the tax penalty and the sales tax compliance.*

**Hypothesis 13:** *Public governance moderates the relationship between the tax moral and the sales tax compliance.*

**Hypothesis 14:** *Public governance moderates the relationship between the tax fairness and the sales tax compliance.*

**Hypothesis 15:** *Public governance moderates the relationship between the peer influence and the sales tax compliance.*

**Hypothesis 16:** *Public governance moderates the relationship between the patriotism and the sales tax compliance.*

#### **4.4 Research Design**

Scholars consider research to be an organized procedure to discover phenomenon and to fulfil the research purpose; therefore, a suitable research strategy should be developed. Zikmund et al. (2013) stated that a research design is the main plan that specifies the procedures and methods for collecting and analysing the needed data.

This section discusses the execution of the study framework. Particularly, this section sheds light on the nature of the study, and the unit of analysis, research approach, and population of the study, sampling frame and sample size.

#### **4.4.1 Nature of the Study**

Business research can be classified on the basis of being either exploratory or descriptive in nature or they can be conducted to (causal) hypotheses testing (Sekaran, 2003). In exploratory research, the researcher attempts to discover new areas of research and clarify an ambiguous situation. Descriptive research, on the other hand, tries to describe the characteristics of the phenomenon. Hypothesis testing is undertaken to explain the differences in the dependent variable or to foresee organizational results. The type of the research carried out depends on the aims of the research. As this study is focused on foreseeing the determinants that influence sales tax compliance, in particular examining the relationships among socio-psychological factors, deterrence factors and sales tax compliance, it can be categorized as a causal study in nature that is conducted through hypothesis testing.

#### **4.4.2 Unit of Analysis**

Scholars must clarify the unit of analysis for their works to identify solutions and clarifications of the study problem (Zikmund et al., 2013; Sekaran & Bougie, 2010). The unit of analysis can be organization units, groups or individuals. According to Sekaran (2003) the unit of analysis is defined as the level of aggregation of the data

collected during the subsequent data analysis stage. Accordingly, the present study examined the determinants of the sales tax compliance of SMEs. Thus, the level of analysis is business, which means that the data collected were from the owners and managers of SMEs in manufacturing sector aggregated at the organizational level.

In the present study, questionnaires were distributed to the SMEs owner-managers<sup>3</sup> because they have a substantial role in the tax decisions (Kamleitner, Korunka, & Kirchler, 2012). In addition, they are in charge of gathering and remitting the sales tax to the government (Christensen, Cline & Neubig, 2001). Besides, they are more likely to have correct perceptions of the sales tax compliance of SMEs due to fact that, they typically play a significant role in decision-making. Hence, they are expected to have a good understanding and perception on tax matters. In other words, Lignier (2009) stated that owners and managers of SMEs are the only ones who have recognized that activities of tax compliance drive improved record keeping and have an better knowledge of their financial affairs.

#### **4.4.3 Research Approach**

The current study adopts a quantitative approach to determine the factors affecting the sales tax compliance of SMEs in Jordan. The purpose of the quantitative approach is to predict, explain and control social phenomena (Wellington & Szczerbinski, 2007). A quantitative approach contributes to solving and explaining complex issues (Sakaran, 2003). Tax compliance is a complex phenomenon (Torgler,

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<sup>3</sup> Some of the SMEs are more structured in terms of organizational structure. In such SMEs, the responses may come from chief executive officer (CEO) or managing director (MD).

2003). According to the Zikmund et al. (2013), a quantitative approach can address the objectives of a study by empirical valuations that contain numerical measurement and analysis. A popular purpose of quantitative research is to test hypotheses or specific research questions (Zikmund et al., 2013). Additionally, a quantitative approach enables a researcher to concentrate on a particular issue, to pursue a rigorous method, and to generate valid conclusions (Sekaran, 2003).

Engida and Baisa (2014) proposed that, to ensure a good understanding of tax compliance and collect relevant data, the survey method of data collection should be employed. Feld and Larsen (2012) suggested that, in the survey approach, it is possible to ask respondents about their perceptions of the risk of being detected and the magnitude of sanctions and fines (measuring deterrence tools), as well as about their undeclared actions. The ability to measure the factors that are not immediately observable, like socio-psychological factors, is one of the most significant advantages of the survey method in contrast to other methods utilized to measure tax evasion. The survey method provides a good source of data, as well as information about the economic, psychological, social, attitudinal and demographic variables of taxpayers (Torgler, 2003). This helps to test a rich set of relevant theories (Torgler & Schaltegger, 2005). The importance of this method is that it can obtain a large number of respondents, which enables generalization (Devos, 2005).

Abdul-Jabbar (2009) asserted that the survey method remains a popular method in the social sciences and is likely to remain the most common design for research in the tax compliance literature. Jackson and Milliron (1986) declared that the survey

method was the most frequently used method in the tax literature because the survey method can elicit extra details concerning the structure of undeclared business, such as tax evasion. The majority of other methods used are unable to distinguish between the different factors that influence tax evasion (Feld & Larsen, 2012).

Due to the nature of the variables, the present study requires the use of the survey method. It is necessary to depend on primary data collection when facing difficulties in finding the data necessary from secondary sources. This is so particularly when the study concerns the primary data pertaining to social, psychological, economic and demographic characteristics, as well as motivation and behaviour. Therefore, this study will utilize primary sources of data.

#### **4.4.4 Population and Sample Frame**

This research concentrates on the determinants of sales tax compliance. To achieve this purpose, this study focuses on SMEs in the Jordanian manufacturing sector as the population of this study. The present study defines the population as micro, small and medium-sized enterprises (SMEs) in Jordanian manufacturing. The manufacturing sector is significant for the country's development and is the primary activity that divides developed countries from those that are still developing (Al-Khasawneh, 2012).

Nowadays, Jordanian manufacturing sector is one of the most promising sectors due to the number of manufacturing cities and areas of development that SMEs are supporting (JIC, 2016). In particular, around 25% of the Jordanian GDP is

contributed to by the manufacturing sector (ZCI, 2016), and the sector employs 20% of the total labour force in the country. Likewise, manufacturing products represent around 86% of the country's exports (MIT, 2014). Additionally, it attracts more than 70% of foreign investments, and the manufacturing sector contributes to financial stability by providing the governmental budget with more than one billion dinars yearly in indirect or direct taxes, as every dinar invested in manufacturing provides the budget with more than 8 pennies of taxes. Lastly, SMEs accounted for more than 99% of the total enterprises this sector (ACI, 2015).

The manufacturing sector involves several activities, and those activities are categorized based on 10 sub-sectors, namely, plastic and rubber products, therapeutics, chemicals, engineering industries, construction, furniture, kitchens and doors, food and supply, printing, paper and stationeries and garments (ACI, 2017). In addition, manufacturing enterprises mostly comprise SMEs, with the total number of enterprises and businesses in the manufacturing sector being 17,966 (JCI, 2017). SMEs represent more than 99% of the total enterprises in the manufacturing sector; about 17,849 SMEs (JCI, 2017), which was the population for the current study.

A sampling frame is a list from which a sample can be taken and which leads ultimately to the sample units about which the information is to be obtained. Hair, Wolfinbarger, Money, Samouel and Page (2015) outlined three characteristics of a good sampling frame. First, the frame should contain a list of members of the defined population. Second, the frame should be complete and provide up-to-date

information of the population. Third, no redundancy should be existed in the sample elements.

The current study utilized a comprehensive and updated list of SMEs in the Jordanian manufacturing sector as a sampling frame. ISTD in Jordan is the only department having the list of the taxpayers of businesses concerning sales tax, but the access to the database in ISTD is not allowed for the public in any way because of confidentiality and privacy concerns. Additionally, the database held by ISTD provides no information for staff size, which creates difficulties in classifying the businesses based on size. The JCI provides a list of SMEs in the manufacturing sector via an official application procedure. Thus, this study decided to use data obtained through the official application procedure of the JCI, which provides a list of 17,749 (with 100 excluded from the sample frame because they were used in a pilot study) SMEs in manufacturing sector according to number of staff. As well the sample list contained the details of every SMEs in the manufacturing sector, such as name, phone number and email. Furthermore, any business in Jordan is required to register with the JCI to get a license to work.

#### **4.4.5 Sample Size**

The sample size for the population of current study should be 377 of the 17,749 firms according to Krejcie and Morgan (1970). To avoid a low response rate, which is a common issue in most studies involving SMEs (Gnan, Montemerlo & Huse, 2015; Sen & Haq, 2010; Afsharghasemi et al., 2013; Reekmans, 2010), especially in Jordan

(Lutfi et al., 2017), the sample size should be increased (Israel, 1992). This oversampling is founded on prior literature that indicated that a non-response rate that ranged between 70% and 75% in the context of business in Jordan (Lutfi et al., 2017; Alsaad, 2015). Based on considerations that mentioned above, the sample size of the present study was increased by 75% to 660 SMEs for the actual data collection phase targeted at respondents.

In the current study, the procedure applied to select a sample was the probability sampling technique because the method has less bias and provides for the most generalizability of findings (Zikmund et al., 2013; Sekaran, 2003). Therefore, a systematic random sampling technique was utilized in this study to select 660 of respondents from the list that provided by JCI. The sampling interval for the current study was (population/sample size)  $17,749/660 = 27$ . At a beginning point the researcher chosen the number 27, and the sampling elements were numbered 27, 54, and 81 and so on up to the last sample to be selected. That is, the sampled element number of 660.

Some benefits attached to this type of sampling technique are that it is simple, speedy, and easy to use when the sampling frame is large and a listing of the elements is appropriately available in one place (e.g., chamber of industry listings) (Sekaran & Bougie, 2016). The systematic random sampling technique allows a researcher to add systematic elements to a random selection of subject, and the researcher is guaranteed that the population will be evenly sampled. The method reduces the potential for human bias in the selection of cases to be included in the

sample. Based on the prior discussion, to utilize systematic sampling required a list of all SMEs in Jordan. So, this method was applicable to this study. Additionally, the systematic sampling has been used in similar prior studies in the context of taxation (e.g., Chandarasorn, 213; Nabaweesi, 2013).

#### **4.4.6 Data Collection Procedures**

The data from the survey method can be obtained in various ways, including questionnaires (either administered personally, by email, mail or the web and fax), interviews (either telephone or face to face) (Zikmud et al, 2013). Self-administered data collection was utilized for this study as the measure to gain more credible survey responses as it has the potential of obtaining a higher response rate and of improving the validity of study (Sapiei et al., 2014; Sekaran, 2003). According to the Zikmud et al, (2013) a self-administrated questionnaire is a survey in which the respondent takes the responsibility for reading and answering the questions.

Collecting data through a self-administered questionnaire gives respondents personal space for replying to the questions of the questionnaire (McShane & Glinow, 2012). This method also gives researchers a chance to verbally clarify the significance of the study and can establish rapport and motivate respondent and provide careful explanations, when needed, regarding difficult, significant or sensitive questions. Thus, doubts can be clarified, and the anonymity of respondent is high (Sekaran & Bougie, 2016; Sapiei et al., 2014; Sekaran, 2003).

In addition, distributing the questionnaires by hand enables the researcher to gather all the completed responses in a short period of time. Furthermore, this technique enables the researcher to explain the benefits and the purpose of the study and to encourage the participants to provide honest answers (Sekaran, 2003). Many prior studies used the self-administrated method in the context of taxation (e.g., Kamar, 2015; Mohdali & Pope, 2014; Mohdali et al., 2014; Lozza et al., 2013; Aljaaidi et al., 2011; Venter & De Clercq, 2007; Abrie & Doussy, 2006; Favere-Marchesi, 2006; Fischer, 1993).

Therefore, the researcher distributed a survey questionnaire to the potential respondents personally; this method of distribution is more popular and typically receives a greater response rate in the Jordanian context (Lutfi et al., 2017; Alasfour et al., 2016; Al-Zou'bi, 2010; Khasawneh et al., 2008). This method is considered common and is well accepted among Jordanian businesses (Lutfi, Idris & Mohamad, 2016). Moreover, most Jordanian SMEs are concentrated in specific areas such as industrial estates, which made the self-administered technique an efficient method for data collection.

As for the present study, the survey questionnaire was carried out over a period of around three months (from 3 June 2017 to 30 August 2017), data collection was done using a personally administered questionnaire (by hand) based on the reasons mentioned earlier. The survey instrument provided details that explained the goals of the research, definitions of the key concepts, asked the respondents for their

cooperation and assured anonymity. The introduction was concluded by thanking the participants for their time and effort to take part in the survey.

However, a lower response rate in the context of SMEs is common. Thus, follow-up procedures are fundamental. Dillman, Smyth and Christian (2014) indicated that response rates obtained with follow-up will commonly be higher than those obtained without a follow-up. Hence, follow-up personal visits and telephone calls were used as a reminder for respondents who did not respond as suggested by Dillman et al. (2014). Therefore, the researcher sent reminders after a period of two weeks from the first distribution. A second reminder was sent two weeks after the initial reminder.

## **4.5 Operational Definition and Measurement of Variables**

The purpose of this study is to determine the factors affecting sales tax compliance in SMEs. Measurement is the process of describing some property of a phenomenon of interest, usually by assigning numbers in a reliable and valid way (Zikmund et al., 2013). The questionnaire related to the measurement of the variables adapted from previous studies. These measurements are demonstrated in detail as follows:

### **4.5.1 Measurement of Tax Complexity**

The current study defines tax complexity as those actions that are linked with the dilemmas facing SMEs with sales tax law, namely, frequent changes, excessive details, too many computations, and detailed special records that they must keep. In the current study, for the purpose of measuring of tax complexity, 6 items were

adapted from Long and Swingen (1987). Isa (2014) indicated that these 6 items of complexity provide a valid and reliable measurement of complexity because they were founded on the expert judgments of tax professionals and could be used in future studies. Therefore, they are considered to be a good measure of tax complexity (Kirchler et al., 2006; Richardson, 2006a; Bradlet, 1994). Respondent perceptions were registered using a 5-point Likert-type scale with 1 representing “strongly disagree” and 5 representing “strongly agree”. Strongly disagree indicates that the tax system is not complex, while strongly agree suggests that tax system is complex.

Table 4.1 presents the items of tax complexity.

**Table 4.1**  
*Measurement of Tax Complexity*

<b>Items</b>
1. There are ambiguities in the sales tax law which may lead to more than one defensible position.
2. Too many computations must be made.
3. There have been frequent changes in the sales tax law.
4. There are excessive details in the sales tax law, such as rules and exemption.
5. Detailed special records must be kept by taxpayer to comply with sales tax law.
6. The format and instructions of the sales tax forms are confusing.

Source: Adapted from Long and Swingen (1987)

#### **4.5.2 Measurement of Tax Audit**

The present study defines sales tax audit as the likelihood that the tax authority by monitoring and inspecting will encourage SMEs to pay the correct amount of sales tax and ensure that they registered to pay sales tax. In the current study, for the purpose of measuring the tax audit, 3 items were adapted from Faridy et al. (2014), which was conducted in the specific context of sales tax, and thus is considered suitable for the present study than those from other studies (Woodward & Tan, 2015;

Bobek et al., 2013; Wenzel, 2004). Although Woodward and Tan (2015) carried out in the context of sales tax it only has two items to measure tax audit, which is considered insufficient. Respondents were asked to assess the relative importance of tax audit using a 5-point Likert-type scale with 1 representing "strongly disagree" and 5 representing "strongly agree". Strongly disagree indicates that tax audit is low, while strongly agree suggests that tax audit is high. Table 4.2 shows the items of tax audit.

**Table 4.2**  
*Measurement of Tax Audit*

<b>Items</b>
1. Businesses pay the correct amount of sales tax when there are greater enforcement and monitoring.
2. The likelihood of audits encourages me to comply with the sales tax law.
3. Businesses registered for sales tax are often subject to tax authority audits and inspections

Source: Adapted from Faridy et al. (2014)

#### **4.5.3 Measurement of Tax Rate**

The present study defines sales tax rate as the percentage imposed on supplies of goods and services, whether imported from abroad or from free zones and local producers if such supply is not exempted to the sales tax law. Prior literature such as Abdul-Jabbar (2009) measured income tax rate using 3 items. This is similar to other studies (Gilligan & Richardson, 2005; Mei Tan & Chin-Fatt, 2000). These studies were adapted originally from Christensen, Wehrich and Newman-Gerbing (1994).

The present study adapted 3 items from the study of Abdul-Jabbar (2009) with some refinements to be in alignment with the sales tax context as it is considered to be

more suitable than those of other studies in that it was applied in the context of tax compliance in SMEs. This section assesses the respondent's perceptions using a 5-point Likert-type scale with 1 representing "strongly disagree" and 5 "strongly agree". Strongly disagree indicates that tax rate is not fair, while strongly agree suggests that tax rate is fair. Table 4.3 illustrates the items of tax rate.

Table 4.3

*Measurement of Tax Rate*

**Items**

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1. A fair sales tax rate should be the same for every type of business size.
2. A fair sales tax rate should be the same for every type of goods.
3. A fair sales tax rate should be the same for every type of sector.

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Source: Adapted from Christensen et al. (1994)

#### **4.5.4 Measurement of Tax Penalty**

This study defines sales tax penalty as the sanctions and fines that are imposed on SMEs that committing sales tax fraud offenses. For the measurement of tax penalty in the current study, 4 items are adapted from James, Murphy, and Reinhart (2005) who had adopted them from the study of Braithwaite (2001) measurement. This scale is considered a better option compared to others (Murphy et al., 2015; Woodward & Tan, 2015; Faridy et al., 2014) because it has 4 measurements as opposed to one or two measurements. In addition, it also matches the incoming sanctions in the Jordanian sales tax law. This section assesses the perceptions participants using a 5-point Likert-type scale with 1 representing "strongly disagree" and 5 "strongly agree". Strongly disagree indicates that tax penalty is perceived to be low, while strongly agree suggests that tax penalty is perceived to be high. Table 4.4 reported the items of tax penalty.

Table 4.4  
*Measurement of Tax Penalty*

<b>Items</b>
1. Businesses that are discovered for tax non-compliance will be forced to pay the sales tax they owe with interest.
2. Businesses that are discovered for tax non-compliance will be forced to pay large penalty and pay the sales tax they owe with interest.
3. Businesses that are discovered for sales tax non-compliance will be taken to court and pay the sales tax they owe with interest.
4. Businesses that are discovered for sales tax non-compliance will be taken to court, <u>pay a substantial penalty</u> and <u>pay the tax they owe with interest</u> .

Source: Adapted from Braithwaite (2001)

#### 4.5.5 Measurement of Tax Moral

Sales tax moral considered as an intrinsic motivation to pay sales taxes appearing from ethics compliance to pay sales taxes and the strong belief in contributing to build nation by paying sales taxes. For the purpose of the measurement of tax morals in the current study, 10 items are adapted from Torgler et al. (2007), who is considered to be a pioneer scholar in the context of tax moral unlike other researchers who measured tax moral (Murphy et al., 2015; Braithwaite et al., 2007; Efebera, Hayes, Hunton & O’Neil, 2004; Webley et al., 2004). This section assesses respondent’s perceptions using a 5-point Likert-type scale with 1 representing “strongly disagree” and 5 “strongly agree”. Strongly disagree indicates that tax moral is low, while strongly agree suggests that tax moral is high. Table 4.5 presents the items of tax moral.

Table 4.5

*Measurement of Tax Moral*

**Items**

1. The current sales tax burdens can never be justified by sales tax non-compliance.
2. The easy availability of opportunities to evade sales taxes can never justify sales tax non-compliance.
3. If in doubt about whether or not to report a certain sales turnover, I would report it.
4. The government's getting enough sales taxes can never justify some people's evasion of sales taxes.
5. Sales taxes are so heavy that sales tax non-compliance is not an economic necessity for many to survive.
6. If I receive JD 2000 in cash for sales and services rendered, I would report it.
7. Cheating on sales taxes can never be justified by the unfairness of the sales tax system.
8. Sales taxes are not taken away from customers.
9. Evasion of sales taxes by everybody can never justify one doing it.
10. There is something bad about under-reporting taxable sales on one's sales tax return.

Source: Adapted from Torgler et al. (2007)

#### **4.5.6 Measurement of Tax Fairness**

The present study defines tax fairness as the fair distribution of sales tax registration threshold and sales tax penalties imposed by the tax authority as well as costs falling on the sales tax registered. The present study adapted 6 items from Woodward and Tan (2015) to measure tax fairness, which is considered to be the first study developed to measure sales tax fairness; thus, this study is more suitable for the current research in the sales tax context than other studies that measured tax fairness in the context of income tax (Murphy et al., 2015; Bobek, Hageman & Kelleher, 2013; Braithwaite et al., 2007; Gilligan & Richardson, 2005; Gilligan & Richardson, 2005; Said & Traub, 2001). This section assesses the respondents' perceptions using a 5-point Likert-type scale with 1 representing "strongly agree" and 5 as "strongly

disagree". Strongly disagree indicates that tax system is not fair, while strongly agree suggests that tax system is fair. Table 4.6 showed the items of tax fairness.

Table 4.6

*Measurement of Tax Fairness*

**Items**

1. Sales tax applies to most goods and services, so people who consume more pay more sales tax.
2. The sales tax registration threshold is fair to your business.
3. Being sales tax registered does provide other benefits such as better recordkeeping.
4. Although an administration cost falls on the sales tax registered business it is not significant.
5. The tax penalties imposed are applied consistently by the tax authority.
6. Being sales tax registered doesn't affect the competitiveness of my business, having to add sales tax rate to my prices doesn't affect my business sales volume.

Source: Adapted from Woodward and Tan (2015)

#### **4.5.7 Measurement of Peer Influence**

This study defines peer influence as the effect of people who are significant for SMEs owner-managers with respect to their sales tax compliance decision, which contributes to shape their attitudes towards sales tax compliance. For measuring peer influence in the present study, 6 items were adapted from Braithwaite (2001). These are considered more relevant than those from other studies (Bobek, Roberts & Sweeney, 2007; Webley et al., 2004). Although Webley et al.'s (2004) study was conducted in the context of sales tax in SMEs, it only has one item, which is not considered sufficient to measure peer influence. This section assesses the respondent's perception using a 5-point Likert-type scale with 1 representing "strongly disagree" and 5 "strongly agree". Strongly disagree indicates that peer

influence is perceived to be low, while strongly agree suggests that peer influence is perceived to be high. Table 4.7 presents the items of peer influence.

Table 4.7

*Measurement of Peer Influence*

**Items**

1. Most people who are important to me think that I should report all my sales tax return.
2. Most people who are important to me think it is unacceptable to overstate tax deductions on their sales return.
3. Most people who are important to me think that the tax they pay is fair given the services they get from the government.
4. Most people who are important to me prefer to pay less tax even if it means receiving a more restricted range service.
5. Most people who are important to me think that sales tax non-compliance is a trivial offense.
6. Most people who are important to me think the government should actively discourage participation in the informal sector.

Source: Adapted from Braithwaite (2001)

#### **4.5.8 Measurement of Patriotism**

The current study defines patriotism of SMEs owner-managers as an affective attachment feeling and positive identification represented in paying more sales taxes and not to engage in fraudulent activities by hiding sales tax revenue needed to develop the country. The current study adapted 6 items to measure patriotism from the study of MacGregor and Wilkinson (2012). MacGregor and Wilkinson (2012) is considered more appropriate in the context of tax than other studies such as Gangl et al. (2016), Konrad and Qari (2012) and Qari et al. (2012), which measured patriotism by indirect ways in the context of tax; in addition the literature pertaining to patriotism and tax compliance is very limited. Respondents will be asked to indicate the extent to which they agree with the statements related to patriotism using a 5-

point Likert-type scale with 1 representing “strongly disagree” and 5 “strongly agree. Strongly disagree indicates that respondents have not patriotic, while strongly agree suggests that respondents have patriotism. Table 4.8 demonstrates the items of patriotism.

Table 4.8  
*Measurement of Patriotism*

<b>Items</b>
1. Businesses are more patriotic when they buy goods made in Jordan than goods made in other countries.
2. A business that pays more in sales taxes is more patriotic than a business that pays less in taxes.
3. A person who cheats on his/her sales taxes is not patriotic.
4. A business that hides its sales revenue in a foreign country to avoid sales taxes is not patriotic.
5. Businesses that cheat on sales taxes are not patriotic.
6. <u>I would be willing to increase sales tax rate if it would help my country.</u>

Source: Adapted from MacGregor and Wilkinson (2012)

#### 4.5.9 Measurement of Public Governance

Public governance as a series of inclusive procedures by governmental authorities, which meet several targets like fair election, freedom, good laws, achieving the quality of general infrastructure, a fairness of justice, care of health, an education system, combating crime, integrity, anti-corruption, financial honesty and political stability.

Several studies have measured public governance using different scales. For example, Alabede et al. (2011) measured public governance using 17 items, and Saidu, Badariah and Kling (2016) measured public governance using 20 items. Measurement in both studies were adapted from original study by Kaufmann, Kraay

and Mastruzzi (2007). The current study adapted 17 items from Alabede et al. (2011) with some modifications to suit the Jordan context that were refined in the context of sales tax compliance. This section assesses the respondents' perceptions using a 5-point Likert-type scale with 1 representing "strongly disagree" and 5 "strongly agree". Strongly disagree indicates that respondents are not feel satisfied with public governance, while strongly agree suggests that respondents feel satisfied about public governance. Table 4.9 presents the items of public governance.

Table 4.9  
*Measurement of Public Governance*

**Items**

1. I trust the Jordanian parliament in making good laws for Jordan.
2. I believe that there are free and fair elections in Jordan.
3. I believe that there is no wastefulness in government expenditures in Jordan.
4. I have access to the published accounts and annual report of the government in Jordan.
5. I am satisfied with quality of the general infrastructure in Jordan.
6. I feel that Jordanian public servants are not vulnerable to political interference.
7. I am satisfied with the manner in which the government is handling the health service.
8. I am satisfied with the manner in which the government is handling the education system.
9. I trust the financial honesty of Jordanian politicians.
10. I believe that the diversion of public funds due to corruption is not common in Jordan.
11. I think that individual and firms, frequently, make extra payments in connection to tax payment, loan application, etc.
12. I believe that political situation is stable in Jordan.
13. I believe that political protests are not a threat to Jordanian stability.
14. I believe that there is no tribal conflict threat to stability in Jordan.
15. I feel that Jordanian Judiciary is free from interference of other agencies of government
16. I believe that justice is fairly administered in Jordan.
17. I believe that Jordanian police has effective power in combating crime.

Source: Adapted from Kaufmann et al. (2007)

#### **4.5.10 Measurement of Sales Tax Compliance**

Sales tax compliance is a dependent variable, which is defined as a correct record of details on sales tax invoice and not being fraudulent in the details of tax invoice to pay less sales tax. Previous studies indicated that measuring tax compliance is difficult (Seren & Panades, 2013; Ahmed, Chetty, Mobarak, Rahman & Singhal, 2012; Alm, 1999). Sales tax compliance can be measured both generally and in broad terms (Webly et al., 2004) or by referring to types of sales, either credit sales by using tax invoices or cash sales transaction (Woodward & Tan, 2015). The current study measures sales tax compliance by adapting 11 items from the context of sales tax invoice, as employed by Woodward and Tan (2015). Using tax invoice means that business becomes liable for sales tax once the invoice is issued. So, even if the business has not received the payment for such sale, they are still liable to pay sales tax. Thus, tax invoice is the most important document and required by sales tax law to collect sales tax when taxable goods or services are sold or provided.

This section assesses respondents' perceptions using a 5-point Likert-type scale with 1 representing "strongly disagree" and 5 "strongly agree". Strongly disagree indicates that respondents are non-compliant in paying sales tax, while strongly agree suggests that respondents comply in paying sales tax. Table 4.10 presents the items of sales tax compliance.

Table 4.10  
*Measurement of Sales Tax Compliance*

<b>Items</b>
1. Most business owner-managers always correctly record the details of a sale on the sale tax invoice.
2. Most business owner-managers generally believe that it is unacceptable to alter a sales tax invoice to allow a customer to claim more sales tax.
3. There are no circumstances when it might be acceptable to alter the details on a tax invoice to allow another business owner-managers to claim more sales tax.
4. If the customer's requests a tax invoice to be altered so they can claim more sales tax, business owner-managers will not do it for them.
5. If business owner-managers altered a tax invoice to allow a customer to claim more sales tax, they would not feel good about it.
6. There are no circumstances when business owner-managers find it justifiable to ask another sales tax registered business to alter a tax invoice so that they can claim more sales tax.
7. Most business owner-managers believe that it is unacceptable to alter a tax invoice to include private expenses as business expenses for sales tax purposes.
8. I think it is unacceptable to alter a tax invoice so that private expenses appear to be business-related in order for me to make a sales tax claim.
9. Some businesses owner-managers believe that its unacceptable to create fake invoices or alter invoices in order to claim sales tax refunds they are not entitled to.
10. I do not find faking invoice or altering an invoice justifying a sales tax refund.
11. If I created or in any way altered a tax invoice to get a claim for sales tax I was not entitled to, I would not feel good about it.

Source: Adapted from Woodward and Tan (2015).

Table 4.11 summarizes all variables and sources of adaption used in this study.

Table 4.11

*Variables Measurements and Sources*

Variable	Source of adaption	Items
Sales Tax Compliance	Woodward and Tan (2015)	11
Public Governance	Kaufmann et al. (2007)	17
Tax Complexity	Long and Swingen (1987)	6
Tax Audit	Faridy et al.(2014)	3
Tax Rate	Christensen et al.(1994)	3
Tax Penalty	Braithwaite (2001)	4
Tax Moral	Torgler et al.(2007)	10
Tax Fairness	Woodward and Tan (2015)	6
Peer Influence	Braithwaite (2001)	6
Patriotism	Macgregor and Wilkinson (2012)	6
	Total	72

#### 4.6 Questionnaire Design, Translation and Validity

This study requires information about the determinants of sales tax compliance in SMEs. To obtain that information, asking the owner-managers questions is necessary. Therefore, a questionnaire was utilized as the major research instrument for the current study, which has several advantages over other types of research methods. These advantages include the ability to collect a large quantity of information from respondents, it is inexpensive to administer, no need exists for a major effort to develop it, and it can be easily and quickly analysed (Wilkinson & Birmingham, 2003). Additionally, a survey enables respondents to answer at their own leisure is therefore less intrusive than other methods for collecting data (Annis, Racher, & Beattie, 2004). Questionnaires are very helpful as a data collection instrument, particularly when large numbers of respondents are to be reached in

various geographical regions (Sakaran, 2003). Furthermore, a survey assists in obtaining consolidated answers from respondents (Sekaran & Bougie, 2010) and in reducing response bias and helping to obtain the required data from respondents within a short time (Zikmund et al., 2013).

When a questionnaire utilized as the instrument for data collection, it is essential that the questionnaire should be of high-quality to collect good quality data. Sekaran (2003) indicated that three principles should be considered in questionnaire design; namely, 1) the wording of the questions, 2) how the variables are categorized and 3) the general appearance of the questionnaire. Salant and Dillman (1994) stated that a questionnaire should include a suitable layout and format, scales of measurement, ordering of the questionnaire and question wording. Questionnaires that have a high-quality design improve the response rate and reduce measurement errors (Dillman, 2007). Furthermore, it lowers the quantity of time taken to fill in the questionnaire by a targeted respondent (Paxson, 1995). In addition, using simple less confusing language and making questions shorter is appropriate SMEs. A 5-point Likert-type scale is greatly accepted especially in tax compliance studies (Benk et al., 2011; Abdul-Jabbar & Pope, 2008; Gilligan & Richardson, 2005; McKee & LaTour, 1991).

This research designed and prepared a six-page questionnaire with eleven sections based on a past literature. Section 1 asks about the tax rate. Section 2 asks about tax audit, while section 3 asks about tax penalty. Section 4 of the questionnaire concerns tax fairness. Section 5 asks about tax complexity. Section 6 asks about patriotism, while section 7 asks about peer influence. Section 8 of the questionnaire concerns tax

morals. Section 9 asks about the sales tax compliance, while section 10 asks about public governance. The last section number 11 asks for demographic information.

The questionnaire was drafted in English, as the original items were written in English. The whole questionnaire was then translated into Arabic, which is the official language in Jordan. Using Arabic as the medium for the questionnaire is advantageous in connecting with SMEs in Jordan. It will also assist in getting more information by utilizing the common language of the respondents through the data collection process.

The questionnaire was provided in the Arabic language. The translation to the Arabic language was done by the researcher because of the specialised terms used in this sales tax compliance study and its determinants. Because the current study was the first attempt to measure and determine the factors affecting sales tax compliance in the context of Jordanian SMEs, the researcher could be expected to clearly understand and how knowledge about the relevant terms. However, the researcher asked several postgraduate Jordanian students in Malaysia and two academicians in Jordan to give suggestions about the translation of the questionnaire from English into Arabic. Then, an Arabic language expert verified the Arabic version of the questionnaire.

The researcher distributed the questionnaire for review by five academicians in the area of accounting, and three of them were auditors in tax authority. In addition, two SMEs owner-managers and two tax auditors of the tax authority in Jordan further refined this questionnaire to ensure its accuracy and validity. Generally, the experts

confirmed that the survey instrument should be short, easy to answer and understandable. Items were evaluated for construction faults, flow, ambiguity and sequencing. The questionnaire was then revised where appropriate.

In sum, the questions, which have been formulated, followed an extensive assessment procedures including an expert review to ensure that the questionnaire was as understandable and clear as possible as to the target respondents. Additionally, respondents were reassured for the anonymity of their responses and participation to obtain reliable opinions. Moreover, the questionnaire explained the benefits and the purpose of the study that encouraged the participants to provide honest answers, then the respondents were asked for their cooperation.

#### **4.7 Pilot Study**

The pilot test is a pre-testing of the questionnaire on the target population before the actual data collection (Zikmund et al., 2013). Zikmund et al. (2013) defined a pilot study as a small-scale research project that collects data from respondents like those to be used in the full study. A pilot study was conducted for this research because it offers many important features such as providing the chance to remove vagueness and raise clarity of some instrument items and assisting in making any necessary modifications based on the outcome of the pilot study (Sekaran & Bougie, 2010).

According to Johanson and Brooks (2009), a sample size of 30 questionnaires is suitable for pilot study. Because of the possibility of non-response, 100

questionnaires were distributed and administered randomly to the respondents from sampling frame. Of the questionnaires that were distributed, 34 were collected and 3 were not completed; hence, only 31 questionnaires were considered for analysis purposes.

The reliability of measurements tested as a main aim of the pilot study. The reliability of internal consistency is the first standard to be evaluated, Cronbach's alpha is the traditional standard for measuring internal consistency (Hair, Hult, Ringle & Sarstedt, 2014a). Sekaran and Bougie (2010) also stated that Cronbach's alpha test is the main analysis of internal consistency reliability. Like other studies, a Cronbach's alpha analysis of all variables was carried out to test internal consistency of the questionnaire using SPSS 23. Reliability values for Cronbach's alpha between 0.60 to 0.70 are acceptable, and if the values fall between 0.70 and 0.90, then the result is satisfactory (Hair et al., 2014a). Through Cronbach's alpha test, the instrument of the current study achieved satisfactory internal consistency for all variables as shown in Table 4.12.

**Table 4.12**  
*Reliability of the Instrument in the Pilot Study (N= 31)*

<b>Constructs</b>	<b>Items</b>	<b>Cronbach's Alpha</b>
Sales Tax Compliance	11	0.769
Public Governance	17	0.818
Tax Complexity	6	0.788
Tax Audit	3	0.859
Tax Rate	3	0.775
Tax Penalty	4	0.800
Tax Moral	10	0.778
Tax Fairness	6	0.782
Peer Influence	6	0.759
Patriotism	6	0.791

#### **4.8 Data Analysis Techniques**

The current study tested the determinants of sales tax compliance among Jordanian SMEs. Following data collection and to achieve the research objectives, descriptive statistics analysis and inferential analysis technique were employed for data analysis. Descriptive statistics provide a description of and summarize the profiles of the respondents and assists in data cleaning to address cases like missing data, normality, outliers, multicollinearity, and response bias. All these analysis and tests were run by utilizing the Statistical Package for Social Sciences (SPSS) software version 23, while inferential statistics were conducted with the assistance of Smart PLS 3.0 software.

The present study utilized PLS path modelling by Smart PLS 3.0 software to analyse and interpret the data collected. PLS-SEM is a widespread multivariate analysis method to estimate variance-based structural equation models, especially in social sciences disciplines (Hair, Sarstedt, Ringle & Mena, 2012; Ringle, Sarstedt & Straub, 2012). PLS path modelling is considered to be the most appropriate technique in this research for many reasons and offers several advantages. First, PLS can test various relationships simultaneously (Duarte & Raposo, 2010; Chin, Marcolin & Newsted, 2003).

Second, this research seeks to introduce a theoretical contribution through examining the relationships between eight independent variables, namely, tax complexity, tax audit, tax rate, tax penalty, tax moral, tax fairness, peer influence and patriotism and

dependent variable sales tax compliance as well as the public governance as a moderator, which considered to be a complex model. In the field of social sciences, the belief is that associations are becoming increasingly complex; thus, researchers are becoming increasingly concerned about moderating impacts (Uinzi, Chin, Henseler & Wang, 2010). Modelling is an appropriate requirement to examine the models that have moderating effects (Temme, Kreis & Hildebrandt, 2010). That is because PLS handles very complex models (Ringle, Sarstedt, Mitchell & Gudergan, 2018; Richter, Sinkovics, Ringle & Schlaegel, 2016; Schubring, Lorscheid, Meyer & Ringle, 2016; Hulland, 1999; Fornell & Bookstein, 1982).

The current study is applying social-psychology theories and deterrence theory. Therefore, using a path modelling technique is a necessary condition as it has been recommended that, when a study is an extension of an existing theory or prediction-oriented, PLS path modelling should be used (Hair et al., 2014a; Hulland, 1999).

Third, PLS is a suitable statistical analysis for small sample size with many indicators and constructs (Richter, Cepeda, Roldán & Ringle, 2016; Hair et al., 2014a). The model has 72 measurement items and a sample size of 215, and, thus, PLS is considered to be the most appropriate method for the current study for better prediction as PLS is an approach of constructing a predictive model when there are numerous factors and determinants or measurement items included and a comparatively small sample size. Fourth, PLS path modelling is friendly user, freely available to researchers and academics (Hwang, Malhotra, Kim, Tomiuk & Hong, 2010; Esposito-Vinzi, Trinchera, Squillacciotti & Tenenhaus, 2008).

PLS-SEM models can be evaluated through two major methodological components, namely, 1) evaluation of measurement model and 2) evaluation of the structural model (Hair, Ringle & Sarstedt, 2013; Valerie, 2012; Henseler et al., 2009). In the first stage, the measurement models were tested to verify the reliability and validity through testing internal consistency, the validity of the measures related to the variables, and their discriminant validity as follows:

1. Internal consistency reliability is a form of reliability used to judge the consistency of results across items on the same test. It determines whether the items measuring a construct are similar in their scores. Composite reliability is a measure of internal consistency reliability and should be above 0.70, but 0.60 to 0.70 is considered acceptable (Hair et al., 2014a).
2. Indicator reliability: is the square of standardized indicators outer loading. It represents how much of the variation in an item is explained by the construct and is referred to as the variance extracted from the item outer loading. This should be higher than 0.40 (Hair et al., 2014a).
3. Convergent validity is the extent to which a measure correlates positively with alternative measures of the same construct. A common measure to establish convergent validity on the construct level is the average variance extracted (AVE). Thus should be higher than .50 (Hair et al., 2011).
4. Discriminant validity is the extent to which a construct is truly distinct from other constructs by empirical standards. An indicator's outer loadings on a construct should be higher than all its cross-loadings with other constructs. The square root of the AVE of each construct should be higher than its

highest correlation with any other construct (Fornell Larcker criterion) (Hair et al., 2014a).

Whereas in the second stage, the structural model (inner model) of the present study was evaluated using coefficients of determination ( $R^2$ ), predictive relevance (Q2), size and significance of path coefficients.

1. R Square ( $R^2$ ) is a measure reflecting the amount of variance in the dependent variable that is interpreted via one or more variables (Hair et al., 2010). The values of  $R^2$  (0.02 = weak, 0.13 = moderate, 0.26 = substantial) for endogenous latent variables in the structural model (Cohen, 1988).
2. Effect Size ( $f^2$ ) indicates the effect of a special exogenous latent variable on the dependent latent variable. The values of  $f^2$  (0.02 = small), (0.15 = medium), and (0.35 = large) (Cohen, 1988).
3. Predictive Relevance of the Model (Q2) refers to the model's capability to predict by using a blindfolding procedure. If the values of Q2 larger than 0 this indicates that the exogenous variables have predictive relevance for the dependent variable (Hair et al., 2014a).
4. Path coefficients indicate the path associations among the latent variables in the structural model using bootstrapping to assess the significance of path coefficients. The minimum number of bootstrap samples must be at least as large as the number of valid observations but should be 5,000 (Hair et al., 2014a).

#### **4.9 Summary of the Chapter**

This chapter introduced the research methods and procedures used to achieve the objectives of the research, which was quantitative research in nature. The study involves eight independent variables, one moderating variable, and one dependent variable. Based on the theoretical framework, 16 hypotheses developed for realizing the objectives of the research, and the measurements of the study variables were provided. This chapter also elaborates the population and sampling procedures. A questionnaire was designed and distributed by hand to SMEs in Jordan. Finally, this chapter describes data collection procedures, and the statistical techniques used for data analysis in the present study.



# CHAPTER FIVE

## DATA ANALYSIS AND RESULTS

### 5.1 Introduction

This chapter presents the results of the data analysis using SPSS and PLS path modelling by Smart PLS 3.0 that were employed in the analysis. The chapter begins with response rates and the results of the initial data screening and preliminary analysis. The descriptive statistics for the SMEs profile and latent variables are reported. The main results of the present study are presented in two main sections. In section one, the measurement model (outer model) was assessed to determine individual item reliability, internal consistency reliability, convergent validity and discriminant validity. The results of the structural model (inner model) was evaluated by the level of the R-squared values, effect size, predictive relevance of the model, goodness of fit and significance of the path coefficients and they are reported in section two. Finally, the results of PLS-SEM analysis, which examines the moderating effects on the structural model, are presented. Because

### 5.2 Response Rate

The researcher distributed 660 questionnaires to the SMEs respondents. After around three months, 221 (33.5%) questionnaires were collected from SMEs. Of them, 6 were incomplete and consequently were removed from the analysis. Therefore, the

effective response rate for the present study was 32.5% as shown in Table 5.1. Based on Sekaran and Bougie (2016) a response rate of 30% and above is acceptable for a survey. Additionally, Baruch and Holtom (2008) have also suggested that around 30% of the response rate from the organizational level is acceptable. Table 5.1 summarizes the details of the survey distribution and the responses rates.

Table 5.1

*Summary of Data Collection and Responses Received*

<b>Response</b>	<b>Number</b>	<b>Rate</b>
Questionnaires distributed	660	
Returned questionnaires	221	33.5%
Returned but excluded	6	
Returned and usable questionnaires	215	32.5%

The response rate is generally considered good compared to the 16 studies in the context of tax compliance of SMEs that Abdul-Jabbar (2009) reviewed, which had an average response rate of around 21%. More particularly, in spite of several attempts that have been considered by the researcher to increase the response rate, the study's response rate is considered relatively acceptable when comparing it with past Jordanian SMEs studies. From previous studies response rates ranged from 54% to 76% (Al-Bakri, 2010; Al-Hyari et al., 2012; Al-Mahrouq, 2010).

Accordingly, the response rate of this study was approximately 33.5%. This response rate may be attributed to the nature of the study and the research participants including sensitive issue and time needed to complete the survey. For example, Al-Hyari et al. (2010), studied export barriers for SMEs, Al-Mahrouq, 2010 studied

success factors for SMEs, and Al-Bakri (2010) studied factors impacting e-commerce adoption among SMEs. These are not sensitive issues, but taxation is. Additionally, the functions of the chief executive, managing director, and owner-managers are very dynamic, and, thus, the time available for them to answer questionnaires might be limited.

### **5.3 Data Screening and Preliminary Analysis**

Data screening assists researchers in discovering any probable violations of the main assumptions concerning the application of multivariate techniques (Hair et al., 2014a; Zikmund et al., 2013). Data screening is a procedure for investigating the suitability of the collected data for further analysis. So, before carrying out analysis, the present study screened the data. The screening comprised handling of missing data, data entry errors, an examination of data normality, the assessment of outliers and non-response bias (Hair et al., 2014a). Before the initial screening of the data, all 215 returned and usable questionnaires were coded and then entered into SPSS. The next sub-sections provide specifics about every procedure.

#### **5.3.1 Missing Data Analysis**

Missing data is considered as a critical issue to researchers due to the negative impact on the results of the empirical study, especially in studies that use a quantitative approach (Cavana, Delahaye & Sekaran, 2001). Additionally, PLS-SEM is very sensitive in the presence of missing data. Data could be missing for many

reasons, namely, human error including transcription errors, respondents may have a misunderstanding of the questions or the topic, or they did not know the correct response or they were unwilling to respond to the question (Hair, Black, Babin & Anderson, 2010; Sekaran & Bougie, 2010).

Scholars have agreed that missing percentage less or equal to 5% is considered as insignificant (Hair et al., 2014a; Tabachnick & Fidell, 2007). To identify and treat the missing data suitably, Hair et al. (2010) and Tabachnick and Fidell (2007) suggested replacing the missing values with mean of a nearby point, but cases with more than 50% of missing values must be removed. Accordingly, 6 cases (questionnaires) were deleted, as these participants in this survey answered less than 50% of the questions.

In the current study, of the 15,480 data points, 47 were missed (0.3%). Table 5.2 presents the percentage of the missing values of all variables. In detail, the distribution of missing values are as follows: tax rate, tax audit, tax fairness and peer influence had 3 missing values each. Additionally, tax complexity, tax penalty, tax moral and patriotism had 4 missing values each. Sales tax compliance had 6 missing values and public governance had 13 missing values.

Table 5.2  
*Total and Percentage of Missing Values*

<b>Variables</b>	<b>Number of Missing Values</b>
Sales Tax Compliance	6
Public Governance	13
Tax Complexity	4
Tax Audit	3
Tax Rate	3
Tax Penalty	4
Tax Moral	4
Tax Fairness	3
Peer Influence	3
Patriotism	4
<b>Total</b>	<b>47</b>

*Note:* Percentage of missing values = (the total number of missing values / total number of data points)  $\times 100$ .

### 5.3.2 Outliers Identification and Treatment

Among the main data collection issues employing the questionnaire that should be treated is the issue of outlier (Hair et al., 2014a), which is considered as the next step for the determination of missing values and contributes to limiting incorrect data entries. An outlier is an extreme answer to all questions or a particular question (Hair, Hult, Ringle & Sarstedt, 2016; Lyu, 2015; Barnett & Lewis, 1994). The extreme observed values for one variable are univariate outliers, and extreme values for more than one variable are multivariate outliers (Kline, 2005). Both kinds cause problems by distorting the findings of the empirical analysis. Therefore, the outliers should be detected, and the problematic cases should be treated prior to the data analysis.

There are many stages to outlier detection. First is an analysis of frequency statistics through a table of frequency for all variables to determine if there are any values

outside the maximum and minimum ranges. Following this step, all the data of this study were between the maximum and minimum values. Second, is assessing the univariate outliers. Hair et al. (2010) recommended evaluating the data for univariate outliers using a cut-off standardized value of  $\pm 4$  ( $p < 0.001$ ). According to this standard, no cases were specified as univariate outliers.

Third, the Mahalanobis distance (D2) assessing the multivariate outliers was used. Tabachnick and Fidell (2007) defined as the distance of a case from the centroid of the remaining cases where the centroid is the point created at the intersection of the means of all the variables. Thus, the Mahalanobis distance (D2) was computed by linear regression methods in SPSS 23. Based on number of independent variables of the present study, 9 represents the degrees of freedom in the chi-square table with the threshold value of 27.877 ( $p = 0.001$ ) (Tabachnick & Fidell, 2013). Then, a comparison was made of the chi-square value and the Mahalanobis value to determine and delete any case with a Mahalanobis values that exceeded this threshold value (Chi-square). Following this criterion, 3 multivariate outliers were determined and omitted from the data set as they could affect the accuracy of the data analysis as reported in Table 5.3. Therefore, the final data set after omitted cases had 212 cases.

**Table 5.3**  
*Multivariate Outlier Detected and Removed*

<b>Case number</b>	<b>Mahalanobis Distance</b>
6	35.92847
50	37.49193
120	42.76886

### 5.3.3 Normality Test

Normality indicates that data have a symmetrical distribution, exhibiting a shape that forms a bell curve (Pallant, 2005). Normality is a required assumption in multivariate analysis and in most statistical tests because any fundamental violation of this assumption may lead to unreliable findings (Hair et al., 2010). Some previous researchers have stated that PLS-SEM can provide a model that has an accurate estimation even in cases that have non-normal data distribution (Reinartz, Haenlein & Henseler, 2009; Wetzels, Odekerken-Schroder & Van Oppen, 2009). However, Hair et al. (2014a) recommended that researchers should verify normality via a test of the data. Among the methods for estimating normality are skewness and kurtosis values (Pallant, 2005).

Skewness is a measure that illustrates to what range a data distribution has deviated from the centre of the mean (George & Mallery, 2006). Values of skewness should be within a range of +3 to -3 to be described as normal data (Kline, 1998). Employing Kline's (1998) recommendation, the findings in Table 5.2 show that the skewness values of the study variables were within the range of +3 and -3, indicating that the data have a normal distribution. Kline (2016) recommended that it should only be a problem when the absolute value for skewness exceeds 3.

Kurtosis is a measure that shows whether the data group is flat or peaked relative to a normal distribution (Hair et al., 2014a). The values of kurtosis can be either positive or negative, and positive values indicate that distribution is flatter whereas negative

values indicate a peaked distribution (George & Mallery, 2006). In the present study as demonstrated in Table 5.4, the kurtosis test was conducted for all variables and it fell within the ideal suggested range (+7 and -7) as Byrne (2010) and Curran, West, and Finch (1996) recommended. It was recently suggested that it should just be an issue when the absolute value for kurtosis exceeds 10 (Kline, 2016). Therefore, the data have no problem with kurtosis, indicating the normal distribution of the data.

In conclusion, the findings of normality test illustrated that the assumption of normality was not violated. The data representing the variables of the present study have a normal distribution because the values for all constructs were less than the recommended cut-off values. However, PLS-modelling can provide appropriate model estimations in cases extremely non-normal distribution (Hair et al., 2014a).

Table 5.4  
*Results of Skewness and Kurtosis for Normality Test*

Variable	Skewness		Kurtosis	
	Value	Std. Error	Value	Std. Error
Sales Tax Compliance	-1.127	0.167	1.519	0.333
Public Governance	0.213	0.167	1.510	0.333
Tax Complexity	-0.746	0.167	0.748	0.333
Tax Audit	-0.925	0.167	0.005	0.333
Tax Rate	-0.564	0.167	-0.600	0.333
Tax Penalty	-1.024	0.167	0.627	0.333
Tax Moral	-1.311	0.167	2.195	0.333
Tax Fairness	-0.555	0.167	-0.299	0.333
Peer Influence	-0.733	0.167	0.448	0.333
Patriotism	-1.765	0.167	3.811.	0.333

### **5.3.4 Multicollinearity Test**

Multicollinearity exists when there is a higher linear correlation between one or more independent variables in multiple regression (Hair et al, 2014a). The presence of multicollinearity between the independent variables may distort the tests of statistical significance and regression coefficients estimates (Pallant, 2007; Tabachnick & Fidell, 2007). The test of multicollinearity between the exogenous latent constructs (independent variables) before testing the study model, is highly recommended by Hair et al. (2010). The presence of multicollinearity between the independent variables leads to an estimation problem that results in a strange or weak estimate of the regression coefficient, reduced power of the statistical test of the interaction and increased standard error (Hayes, 2013; Tabachnick & Fidell, 2007).

To reveal the problem of multicollinearity, the present study utilized the Tolerance value and Variance Inflation Factor (VIF) as they have been commonly employed to detect multicollinearity (O'brien, 2007; Petter, Straub & Rai, 2007). According to Hair et al. (2014a), multicollinearity is not an issue when the value of VIF is less than 5 and Tolerance is above 0.20. The findings in Table 5.5 indicate that no multicollinearity was present among the latent variables as all values of Tolerance ranged between 0.812 and 0.954, which were all higher than 0.20, and VIF value ranged between 1.048 and 1.232, which were below 5. Therefore, the conclusion can be made that multicollinearity did not exist among the independent variables.

Table 5.5  
*Multicollinearity Assessments Using Tolerance and VIF*

<b>Variable</b>	<b>Collinearity Statistics</b>	
	<b>Tolerance</b>	<b>VIF</b>
Public Governance	0.882	1.133
Tax Complexity	0.867	1.154
Tax Audit	0.812	1.232
Tax Rate	0.892	1.121
Tax Penalty	0.941	1.063
Tax Moral	0.888	1.126
Tax Fairness	0.954	1.048
Peer Influence	0.947	1.055
Patriotism	0.898	1.113

### 5.3.5 Non-Response Bias Test

A non-response bias test was done to look for the likelihood of response bias in the sample. This test typically involves comparing early respondents with late respondents (Armstrong & Overton, 1977). Evidence from previous studies has declared that respondents occasionally vary systematically from non-respondents in different aspects like personalities, perceptions, motivations, attitudes, and behaviours, which affect the results of the study (Malhotra, Hall, Shaw & Oppenheim, 2006). This variance impacts the capacity to generalize study results to the population (Brynnan, 2012). In addition, they stated that delayed respondents can be considered as non-respondents because they would not have responded without being reminded and visited. In this line, Churchill and Brown (2004) stated that late responses obviously show a reluctance for respondents to participate in the survey. However, late responses may be interpreted as due to a lack of attention or

obligations particularly on the part of respondents. Thus, variances in responses can be because of a large delay in responding (Armstrong & Overton, 1977).

In this study, assessing this issue before the main analysis is necessary. To detect if a response bias was present, this study categorized the sample into two master groups as Armstrong and Overton (1977) recommended. These were early respondents and late respondents. In comparing those two groups regarding all questionnaire items, early respondents were classified as those who responded within 30 days, and late respondents were categorized as those who responded after 30 days of distributing the questionnaire as Vink and Boomsma (2008) recommended. Many prior studies used the method in the context of taxation studies (Azmi et al., 2016a; Chunhachatrachai, 2013; Smart, 2012; Bradlet, 1994).

According to this classification, 145 respondents, were grouped into early respondents, while the remaining 67 respondents were considered as late respondents. This study used the extrapolation approach to compare the independent, dependent and moderating variables of the early and late respondents. Additionally, an independent sample (t-test) was carried out to determine any potential non-response bias between those two groups. Table 5.6 shows the findings of the independent-samples test were more than 0.05 (p-value > 0.05); thus, no significant differences between those two groups (Pallant, 2010; Field, 2009). Therefore, the conclusion can be made that non-response bias does not exist and will not significantly affect the generalizability of the current study's findings.

Table 5.6  
*Test of Non-Response Bias*

Variables	Response	Number	Mean	Std. Deviation	Levine's Test for Equality of Variances	
					F	Sig.
Sales Tax Compliance	Early	145	3.5508	0.68093	0.036	0.849
	Late	67	3.5327	0.72870		
Public Governance	Early	145	3.0138	0.56874	0.663	0.416
	Late	67	3.1005	0.62651		
Tax Complexity	Early	145	3.4231	0.76975	0.005	0.945
	Late	67	3.5317	0.82192		
Tax Audit	Early	145	3.5274	1.10901	2.566	0.111
	Late	67	3.7058	0.94379		
Tax Rate	Early	145	3.3779	1.03315	1.087	0.298
	Late	67	3.3120	0.93573		
Tax Penalty	Early	145	3.6042	0.88179	0.482	0.488
	Late	67	3.7688	0.88954		
Tax Moral	Early	145	3.5490	0.68781	0.038	0.845
	Late	67	3.5737	0.68780		
Tax Fairness	Early	145	3.3881	0.88155	1.193	0.196
	Late	67	3.4065	0.96666		
Peer Influence	Early	145	3.4739	0.75746	0.369	0.544
	Late	67	3.4502	0.78301		
Patriotism	Early	145	3.8767	0.77443	0.217	0.642
	Late	67	4.0224	0.69806		

## **5.4 Descriptive Statistics**

Descriptive statistics is considered the first step of statistical analysis. In the current study, descriptive statistics were carried out on SMEs' profiles (the participants' profile) and the latent variables as shown in the following sub-sections.

### **5.4.1 Descriptive Statistics of SMEs**

Descriptive analysis was utilized to describe the profile of the SMEs that participated in the survey, in terms of the period of SMEs in operation, sales turnover, number of staff, and main manufacturing activity. This part also provides the characteristics and information concerning the background of respondents in terms of the current position and the educational level of the respondents.

This study categorized the responding SMEs based on their number of years in operation to less than 5 years, 5 and 10 years and more than 10 years. As Table 5.7 demonstrates more than 57.6 % of the surveyed SMEs have been operating for more than 10 years, whereas, 31.6% of the responding SMEs had been established between 5 and 10 years, and around 10.8% had been established for less than 5 years. Hence, this finding shows that majority of SMEs were matured (more than 10 years of operation) and had a great quantity of experience that provides real support for discovering the influences of socio-psychological factors and deterrence factors on sales tax compliance.

Table 5.7

*Respondent SMEs by Number of Years in Operation*

<b>Years in Operation</b>	<b>Frequency</b>	<b>Percent (%)</b>
Less than 5 years	23	10.8%
5-10 years	67	31.6%
More than 10 years	122	57.6%
<b>Total</b>	<b>212</b>	<b>100%</b>

Sales turnover is considered a measure contributing to the determination of SME size. Table 5.8 shows the distribution of the surveyed SMEs through annual sales turnover. Almost 49.5% of the respondents had turnover of less than JD 100,000, while 33.5 % of SMEs had annual sales turnovers within the range of JD 100,000 and JD 5,000,000, whereas 17% of SMEs had annual sales turnover up to JD 5,000,000. This finding demonstrated that most companies of SMEs respondents had good and high sales turnover. Nevertheless, some of the responding SMEs reported low sales turnover. This may be because some manufacturing requires highly capital whereas others do not (USAID, 2007). However, the majority of responding SME reached the threshold of the register, indicates that respondents have good experience with sales tax, and they have the knowledge necessary to respond to the study instrument and to provide reliable data for the present study.

Table 5.8

*Distribution of Respondent SMEs Based on Annual Sales Turnover*

<b>Sales turnover</b>	<b>Frequency</b>	<b>Percent (%)</b>
Less than JD 100,000	105	49.5%
JD100,000-JD5,000,000	71	33.5%
More than JD 5,000,000	36	17%
<b>Total</b>	<b>212</b>	<b>100%</b>

In addition to that, the number of full-time employees has been categorised to represent the size of SMEs, which is considered the main standard for categorizing SMEs in Jordan (Lutfi et al., 2016). As shown in Table 5.9, approximately 47.6% of the responding SMEs had full-time employees ranging between 1-9 employees and thus can be categorized as micro-sized based on the definition of SMEs adopted by MIT. About 34.9% of the SMEs employed between 10-49 employees and consequently can be considered as a small-sized. The remaining responding sample 17.5% employed between 50 and 249 employees and thus can be classified as medium-sized. This result shows that most responding SME were within the definition of SMEs, which is consistent with the expectation of this study because all surveyed SMEs were obtained from sample frame that has employees ranging from 1-249.

Table 5.9  
*Distribution of Respondent SMEs According to Employees Number*

Number of Employees	Frequency	Percent (%)
1-9 employees	101	47.6%
10-49 employees	74	34.9%
50 -249 employees	37	17.5%
<b>Total</b>	<b>212</b>	<b>100%</b>

Table 5.10 shows that the sample of SMEs in manufacturing had a vast range of industrial sub-sectors. The majority of responding SMEs operate in engineering, electrical and information technology industries 22.2%, furniture, kitchens and doors 15.6%, construction 13.2%, food and supply 12.7%, and plastic and rubber products 9.4%. The following principal areas are garments 9%, chemicals 8.5%, and printing,

paper and stationeries 7.5%. However, therapeutics and mining had no respondents. In fact, the sub-sector of engineering, electrical and information technology industries had a higher number of firms compared with other sub-sectors in the manufacturing sector. The mining and therapeutic sub-sectors had a lower number of firms compared with other sub-sectors in the manufacturing sector (JCI, 2017).

Table 5.10

*Respondent SMEs According to Type of Main Manufacturing*

Type of Manufacturing Sub-Sector	Frequency	Percent (%)
Engineering Industries	47	22.2%
Furniture/kitchens/doors	33	15.6%
Construction	28	13.2%
Food and Supply	27	12.7%
Garments	19	9%
Chemicals	18	8%
Printing, paper and stationeries	16	7.5%
Mining	-	0%
Therapeutics	-	0%
Missing	4	1.9%
<b>Total</b>	<b>212</b>	<b>100%</b>

Regarding the registration in sales tax, the results in Table 5.11, illustrates that the responding sample had an experience with sales tax. Of the sample, 82% of the responding SMEs had been subject to the sales tax. Only 18% of the sample has not registered for sales tax. Thus, the results indicate that majority of the responding SMEs have considerable experience with sales tax. However, the sales tax law (1996) in article 18 para D stipulates that unregistered persons and firms who supply a taxable goods or services are required to issue invoices and keep regular registers and accounts. They are also required to record the supplies made and to keep such invoices and register for five years following the end of the fiscal years during which

invoices were issued or registers were completed, where the majority of local products goods are under sales tax. For the reason that this study investigates and attempts to predict the behaviour of SMEs tax compliance, this study utilized unregistered taxpayers and took them into account.

Table 5.11  
*Respondent SMEs According to a Registration in the Sales Tax*

	Frequency	Percent (%)
Registered	174	82%
Non-registered	38	18%
<b>Total</b>	<b>212</b>	<b>100%</b>

With respect to the respondents' position, the findings in Table 5.12 illustrate that 75% of the respondents of SMEs were owner-managers, while 16.5% of the respondents for the SMEs were chief executive officers, whereas 4.7% of the SMEs responding were managing directors. The remaining respondents for the SMEs were grouped together within the other category representing 3.8% (vice- owner-managers and assistant owner-managers). That the most responses were received from owner-managers is not surprising as the majority of Jordanan SMEs are run by their owner-managers (Al-Hyari et al., 2012; DOS, 2012; YEA, 2011). This demonstrated that the structure of SMEs was very simple and did not have many hierarchical levels.. Meanwhile, the levels of hierarchy of the respondents from SMEs provided some assurance for the reliability of responses, as respondents from administrative positions in SMEs could generally be expected to be more knowledgeable concerning taxation and have an appropriate capacity to reply the requested information.

Table 5.12  
*Respondents' Position*

	Frequency	Percent (%)
Owner-managers	159	75%
Chief executive officer	35	16.5%
Managing director	10	4.7%
Other	8	3.8%
<b>Total</b>	<b>212</b>	<b>100%</b>

With respect to the educational qualifications of the respondents, as demonstrated in Table 5.13, most respondents had an educational qualification beyond the secondary level. Respondents with a university bachelor's degree accounted for 53.3%, whereas 20.3% of the respondents held a diploma, 12.7% of the respondents held a secondary level, while the remaining 13.2% held postgraduate degree. Even though there are owners and managers that have qualifications lower than degree level, yet they have very good experience with business. Thus, this background indicates that SMEs owner-managers have appropriate experience, educational qualifications and knowledge to respond to the survey of this study.

Table 5.13  
*Educational Qualifications*

	Frequency	Percent (%)
Degree	113	53.3%
Diploma	43	20.3%
Postgraduate	29	13.2%
Up to secondary level	27	12.7%
<b>Total</b>	<b>212</b>	<b>100%</b>

## 5.5 Assessment of PLS-SEM Path Model Results

After the checking and screening of the data as presented in the previous discussion, the following stage was to evaluate the two-stage processes of PLS path model assessment, to analyse, to assess and, then to interpret the results of the direct relationships and moderating interactions that include: 1) measurement model evaluation and the outer model, and the 2) structural model evaluation (inner model) as Hair et al. (2014a), Hair et al. (2012) and Henseler, Ringle and Sinkovics (2009) suggested. Figure 5.1 shows the two-steps process to analyse the PLS-SEM path mode.

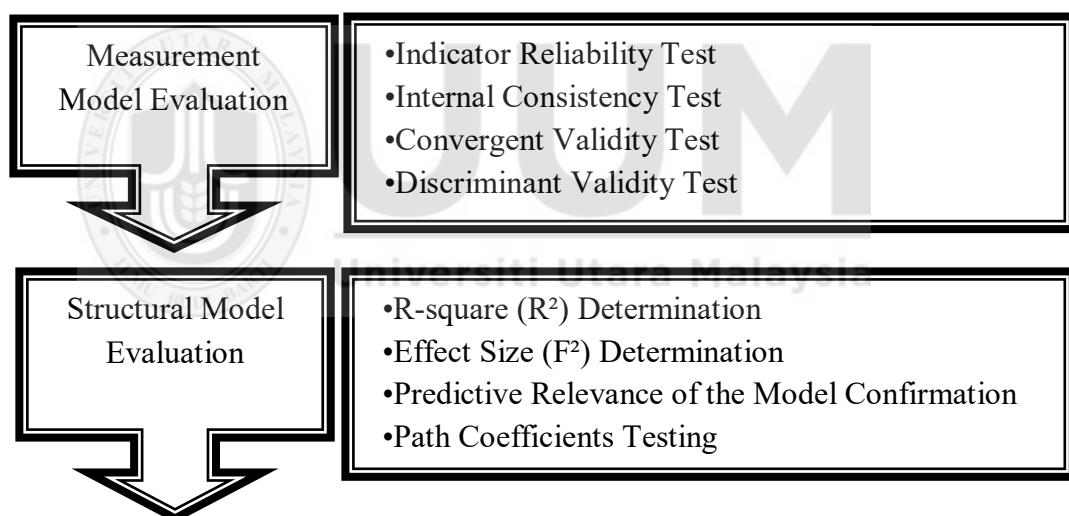


Figure 5.1  
*The Two-Step Process of PLS Path Model Assessment*  
Source: Adapted from Henseler et al. (2009)

The framework of the current study comprises 72 reflective measurement items (indicators) for 10 latent constructs (variables) involving 8 exogenous latent constructs, 1 endogenous latent construct, and 1 moderator variable, which shape the 16 relationships between them based on the hypotheses proposed in Chapter 4.

### **5.5.1 Analysis of Descriptive Statistics for the Latent Constructs**

This section comprises the descriptive statistics of mean values of the independent variables, dependent variable, and the moderator variable as presented in Table 5.14, using a 5-point Likert-type scale ranging from 5 = strongly agree to 1 = strongly disagree. Descriptive statistics of the study variables provide an elaborated view of how the participants in a study answered the questionnaire (Sekaran & Bougie, 2010). In the present study, a 5-point Likert-type scale was divided into three categories, namely, high, moderate, and low. For easier interpretation, scores between (1.00–2.33) were considered low, whereas moderate scores were between (2.34–3.67), while those between (3.68–5.00) were considered high. Woodward and Tan (2015) and Hansford and Hasseldine (2012) also utilized this categorization in their study concerning with the interpretation of a 5-point Likert-type scale.

The overall mean for the latent constructs ranged between 3.04 and 3.92 as illustrated in Table 5.14. The mean score for the sales tax compliance (STCM) was 3.55; this indicates that respondents tended to have a moderate level of sales tax compliance. Public governance (PG) had the lowest mean value compared with other latent constructs with mean value was 3.04, signifying that the respondents perceived that the quality of public governance is fair. Regarding tax complexity (TC), the mean value was 3.46, indicating that the respondents considered the sales tax law to be complex. The results also show that mean value of tax audit (TA) was 3.58, implying that the respondents were of opinion that the chances that the tax authority would audit someone was moderate.

With respect to tax rate (TR), the mean value was 3.36 and shows that the sales tax rate is perceived to be moderately fair. Regarding tax penalty (TP), the value was 3.66; thus, the majority of the respondents considered this to be moderately severe. In terms of the other constructs, the means are as follows: tax moral (TM) (Mean = 3.56), which indicates that the respondents were fairly upright in their tax moral. For tax fairness (TF) the mean (3.39) results suggests that the respondents were of the opinion that the tax structure is moderately fair. The mean for peer influence (PI) was 3.47, signifying that the respondents perceived the importance of the people's belief that they pay sales tax. Patriotism had the highest mean value among all the latent variables of this study with 3.92, indicating that the respondents had high patriotism.

Table 5.14  
*Analysis of Descriptive Statistics for the Latent Constructs*

Latent Construct	Number of Items	Mean	Classification
Sales Tax Compliance	11	3.55	moderate
Public Governance	17	3.04	moderate
Tax Complexity	6	3.46	moderate
Tax Audit	3	3.58	moderate
Tax Rate	3	3.36	moderate
Tax Penalty	4	3.66	moderate
Tax Moral	10	3.56	moderate
Tax Fairness	6	3.39	moderate
Peer Influence	6	3.47	moderate
Patriotism	6	3.92	high

In summary, this section provides key information about the characteristics of the sample. The demographic background of SMEs was also explained. Next, the data screening steps were done to ensure that the data were ready for further analysis. This is followed by descriptive analysis for all study variables. Due to the

preliminary tests carried out, the data appeared suitable for further analysis. It is now possible to move to the next stage of data analysis utilizing PLS-SEM.

### **5.5.2 Assessment of Measurement Model**

Reliability and validity are the major standards to meet in the measurement model in PLS model (Ramayah, Lee & In, 2011). The major standards utilized to evaluate reflective measurement models are indicator reliability test, internal consistency test, convergent validity test, discriminant validity test as suggested by many researchers (Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014; Henseler et al., 2009).

#### **5.5.2.1 Indicator Reliability**

Indicator reliability was tested based on determining the loadings for each item (factor). Ideally, the cut-off point for individual item loading should be 0.70 and above (Hair et al., 2014a). Nevertheless, several researchers have suggested a cut-off point of 0.40; that is any indicator with an outer loading of less than 0.4 should be removed from the measurement model (Hair et al., 2014a; Hair et al., 2013; Hair et al., 2011; Hulland, 1999; Igbaria, Guimaraes & David, 1995). Hair, Anderson, Black and Tatham (1998) suggested that loadings above 0.3 were significant and above 0.4 were more significant. Likewise, Hair et al. (2016) stated that indicators with outer loadings between 0.40 and 0.70 should be considered for removal from the scale only if deleting the indicator leads to an increase in the composite reliability or the average variance extracted above the suggested threshold value. As a result, some indicator loadings were omitted from the dataset because the loadings were less than

the threshold value of 0.40 after being calculated by PLS algorithm, namely, PG12, PG14, PG15, PG16, PG17, PI1, PI2, and PI5.

Some items that ranged between 0.40 and 0.70 were omitted Hair et al. (2014) suggested to increase the values of CR and the AVE of the related latent variables to the minimum acceptable value, thus necessitating the removal of a number of items from these constructs to establish reasonable reliability, namely, PG7, PG8, PG9, PG10, PG11, PG13, STCM6, STCM7, STCM10, STCM11, TM1, TM6, TM7, TM9, TM10, TC1, and TC6. Hence, after removing items that were poorly loading, 47 items were retained for the model.

Deleting some items is considered normal and common in the majority of studies that use questionnaires, especially in taxation studies. For example, Ayuba, Saad, and Ariffin (2016b) deleted 77% items related to the construct of public governance and around 49% from total items in their studies that focused on tax compliance of SMEs as well. Ayuba et al. (2015) omitted around 69% of the items in their study on tax compliance of SMEs. Sinnasamy and Zainol (2017a) also deleted around 34% of total indicators. Furthermore, the criterion suggested by Kline (2016) and Kenny (1979) for having a minimum of two items was maintained because, even after items elimination, all the constructs had a minimum of three items. Table 5.15 illustrates all items before deletion. In addition, Table 5.16 shown items retained for further analysis.

Table 5.15  
*Loadings and Cross Loadings (Before Deletion)*

	<b>PA</b>	<b>PG</b>	<b>PI</b>	<b>STCM</b>	<b>TA</b>	<b>TC</b>	<b>TF</b>	<b>TM</b>	<b>TP</b>	<b>TR</b>
<b>PA1</b>	<b>0.579</b>	-0.009	0.075	0.032	-0.152	0.181	0.027	0.029	-0.011	0.013
<b>PA2</b>	<b>0.617</b>	-0.111	0.047	0.014	-0.111	0.108	-0.012	0.094	0.044	0.007
<b>PA3</b>	<b>0.629</b>	-0.014	0.166	0.055	-0.143	0.196	-0.052	0.080	0.097	0.176
<b>PA4</b>	<b>0.769</b>	-0.076	0.044	0.126	-0.004	0.124	0.077	0.054	0.028	0.084
<b>PA5</b>	<b>0.823</b>	-0.098	-0.093	0.141	-0.097	0.125	-0.089	0.217	0.056	0.075
<b>PA6</b>	<b>0.812</b>	-0.040	-0.022	0.139	-0.044	0.112	-0.085	0.193	0.044	0.007
<b>PG1</b>	0.028	<b>0.605</b>	-0.006	0.093	0.077	-0.019	0.024	0.215	0.107	-0.065
<b>PG10</b>	-0.076	<b>0.550</b>	-0.033	0.058	0.050	-0.052	0.018	0.206	-0.069	-0.055
<b>PG11</b>	-0.044	<b>0.434</b>	-0.029	0.095	0.181	-0.079	-0.090	0.141	0.024	0.007
<b>PG12</b>	-0.038	<b>0.330</b>	0.116	0.024	0.028	-0.027	-0.090	0.069	-0.049	-0.124
<b>PG13</b>	-0.078	<b>0.492</b>	0.082	0.092	0.282	-0.064	-0.040	0.068	0.038	0.051
<b>PG14</b>	-0.153	<b>0.455</b>	0.042	0.124	0.229	0.040	-0.052	0.074	0.007	0.082
<b>PG15</b>	-0.044	<b>0.332</b>	0.042	0.083	0.187	0.005	-0.079	0.062	0.038	-0.035
<b>PG16</b>	-0.030	<b>0.299</b>	0.038	0.017	0.087	-0.054	-0.132	0.107	-0.021	-0.077
<b>PG17</b>	-0.059	<b>0.394</b>	0.063	0.145	0.175	-0.010	-0.151	0.163	0.003	-0.059
<b>PG2</b>	0.080	<b>0.615</b>	-0.064	0.147	0.087	-0.045	-0.001	0.186	-0.024	-0.081
<b>PG3</b>	-0.060	<b>0.659</b>	0.011	0.133	0.089	-0.040	-0.058	0.145	-0.029	-0.004
<b>PG4</b>	-0.090	<b>0.658</b>	-0.013	0.226	0.124	-0.111	-0.020	0.006	0.031	-0.026
<b>PG5</b>	-0.078	<b>0.667</b>	-0.019	0.163	0.119	-0.065	-0.006	0.158	0.110	0.011
<b>PG6</b>	0.006	<b>0.650</b>	-0.015	0.194	0.161	-0.063	-0.028	0.144	0.063	0.122
<b>PG7</b>	0.041	<b>0.655</b>	0.094	0.115	0.081	-0.023	-0.063	0.169	0.053	-0.084

<b>PG8</b>	-0.087	<b>0.582</b>	0.028	0.110	0.162	-0.122	-0.074	0.163	0.037	-0.071
<b>PG9</b>	-0.095	<b>0.630</b>	0.012	0.129	0.118	-0.091	-0.071	-0.011	0.096	-0.046
<b>PI1</b>	0.042	0.066	<b>0.186</b>	0.006	0.033	0.035	-0.141	0.051	-0.018	0.016
<b>PI2</b>	0.036	0.052	<b>0.166</b>	0.017	-0.019	0.036	-0.096	0.021	-0.038	-0.045
<b>PI3</b>	0.016	-0.005	<b>0.870</b>	-0.073	0.031	0.161	-0.059	0.014	0.006	0.019
<b>PI4</b>	0.102	0.035	<b>0.557</b>	-0.019	-0.054	0.162	-0.043	0.049	-0.019	0.071
<b>PI5</b>	0.051	0.103	<b>0.103</b>	0.036	-0.001	0.011	-0.007	0.126	-0.099	0.041
<b>PI6</b>	-0.001	0.165	<b>0.479</b>	-0.039	0.084	0.029	-0.107	0.102	-0.004	-0.118
<b>STCM1</b>	0.064	0.248	-0.060	<b>0.768</b>	0.218	-0.039	0.122	0.199	0.157	0.169
<b>STCM10</b>	0.133	0.076	-0.070	<b>0.665</b>	0.167	-0.100	0.110	0.098	0.197	0.036
<b>STCM11</b>	0.119	0.149	-0.067	<b>0.587</b>	0.167	-0.069	0.094	0.136	0.054	0.164
<b>STCM2</b>	0.066	0.246	-0.064	<b>0.768</b>	0.215	-0.044	0.125	0.194	0.155	0.167
<b>STCM3</b>	0.123	0.188	-0.049	<b>0.721</b>	0.247	-0.136	0.159	0.194	0.143	0.196
<b>STCM4</b>	0.145	0.193	-0.126	<b>0.646</b>	0.110	-0.055	0.075	0.228	0.106	0.047
<b>STCM5</b>	0.091	0.166	-0.110	<b>0.648</b>	0.145	-0.118	0.085	0.168	0.058	0.099
<b>STCM6</b>	0.050	0.109	-0.024	<b>0.616</b>	0.092	-0.049	0.097	0.152	0.098	0.091
<b>STCM7</b>	0.083	0.060	0.001	<b>0.597</b>	0.065	-0.138	0.064	0.232	0.157	0.092
<b>STCM8</b>	0.123	0.139	-0.098	<b>0.671</b>	0.214	-0.173	0.149	0.188	0.157	0.008
<b>STCM9</b>	0.128	0.154	-0.090	<b>0.652</b>	0.245	-0.119	-0.002	0.248	0.124	0.108
<b>TA1</b>	-0.043	0.272	0.017	0.206	<b>0.810</b>	-0.140	-0.002	0.298	0.042	0.198
<b>TA2</b>	-0.065	0.215	0.072	0.189	<b>0.821</b>	-0.171	-0.035	0.184	0.115	0.044
<b>TA3</b>	-0.106	0.135	0.051	0.256	<b>0.850</b>	-0.126	-0.003	0.097	0.211	0.160
<b>TC1</b>	0.095	0.061	0.061	-0.021	-0.028	<b>0.525</b>	0.087	0.035	0.056	0.080
<b>TC2</b>	0.078	-0.039	0.207	-0.133	-0.088	<b>0.806</b>	-0.013	-0.042	-0.040	0.173

<b>TC3</b>	0.137	-0.118	-0.006	-0.084	-0.118	<b>0.697</b>	0.021	-0.018	0.062	0.120
<b>TC4</b>	0.162	-0.001	0.198	-0.067	-0.107	<b>0.649</b>	-0.007	0.063	0.023	0.091
<b>TC5</b>	0.118	-0.120	0.098	-0.134	-0.196	<b>0.791</b>	0.022	0.065	0.012	0.145
<b>TC6</b>	0.302	-0.062	0.156	-0.028	-0.123	<b>0.558</b>	0.042	0.044	0.111	0.137
<b>TF1</b>	-0.084	-0.030	-0.041	0.115	-0.016	0.082	<b>0.773</b>	-0.039	-0.017	0.138
<b>TF2</b>	-0.081	-0.041	-0.049	0.156	0.019	-0.042	<b>0.817</b>	-0.077	0.094	0.000
<b>TF3</b>	-0.010	-0.035	-0.086	0.105	-0.002	-0.025	<b>0.693</b>	-0.015	0.032	0.040
<b>TF4</b>	-0.005	-0.241	-0.064	0.045	-0.064	0.019	<b>0.644</b>	-0.085	0.005	0.065
<b>TF5</b>	0.009	-0.090	-0.106	0.066	-0.038	0.034	<b>0.682</b>	-0.123	0.088	-0.009
<b>TF6</b>	0.048	-0.051	-0.014	0.094	-0.016	0.038	<b>0.677</b>	-0.055	0.097	0.095
<b>TM1</b>	0.047	0.114	-0.082	0.188	0.101	0.000	-0.116	<b>0.613</b>	0.126	0.035
<b>TM10</b>	0.041	0.134	-0.008	0.138	0.080	0.003	0.076	<b>0.535</b>	-0.022	-0.028
<b>TM2</b>	0.096	0.097	-0.079	0.159	0.114	0.077	-0.039	<b>0.663</b>	0.014	0.095
<b>TM3</b>	0.139	0.194	-0.064	0.247	0.241	0.008	-0.110	<b>0.729</b>	-0.001	0.082
<b>TM4</b>	0.192	0.096	0.039	0.176	0.186	-0.019	-0.041	<b>0.673</b>	0.055	0.073
<b>TM5</b>	0.074	0.088	0.002	0.137	0.101	0.043	-0.145	<b>0.604</b>	0.052	0.052
<b>TM6</b>	0.118	0.037	0.092	0.029	0.102	-0.005	0.004	<b>0.600</b>	-0.049	-0.029
<b>TM7</b>	0.119	0.188	0.146	0.176	0.189	0.067	0.087	<b>0.582</b>	0.091	0.075
<b>TM8</b>	0.184	0.146	0.051	0.217	0.137	-0.003	-0.065	<b>0.709</b>	0.178	0.089
<b>TM9</b>	0.120	0.116	0.056	0.124	0.077	-0.035	-0.117	<b>0.604</b>	0.080	0.007
<b>TP1</b>	0.015	0.124	0.029	0.183	0.132	0.030	0.021	0.078	<b>0.825</b>	-0.046
<b>TP2</b>	0.087	0.090	0.022	0.144	0.151	-0.004	0.057	0.038	<b>0.808</b>	-0.047
<b>TP3</b>	0.051	-0.037	0.027	0.154	0.128	-0.001	0.068	0.083	<b>0.779</b>	-0.130
<b>TP4</b>	0.046	-0.010	0.095	0.116	0.077	0.047	0.105	0.131	<b>0.767</b>	-0.001

<b>TR1</b>	0.034	-0.031	-0.070	0.122	0.235	0.138	0.041	0.069	-0.006	<b>0.792</b>
<b>TR2</b>	0.149	0.027	-0.047	0.147	0.060	0.068	0.058	0.066	-0.086	<b>0.818</b>
<b>TR3</b>	0.000	-0.061	0.045	0.122	0.119	0.259	0.077	0.078	-0.080	<b>0.778</b>

Table 5.16  
*Loadings and Cross Loadings (After Deletion)*

	PA	PG	PI	STCM	TA	TC	TF	TM	TP	TR
<b>PA1</b>	<b>0.584</b>	0.020	0.087	0.031	-0.152	0.160	0.030	0.045	-0.012	0.013
<b>PA2</b>	<b>0.624</b>	-0.104	0.057	0.017	-0.110	0.090	-0.007	0.126	0.043	0.008
<b>PA3</b>	<b>0.645</b>	0.069	0.190	0.061	-0.144	0.178	-0.046	0.082	0.096	0.176
<b>PA4</b>	<b>0.758</b>	-0.041	0.046	0.113	-0.004	0.109	0.082	0.069	0.028	0.086
<b>PA5</b>	<b>0.828</b>	-0.064	-0.057	0.139	-0.097	0.108	-0.087	0.233	0.059	0.077
<b>PA6</b>	<b>0.808</b>	-0.017	-0.030	0.131	-0.042	0.093	-0.083	0.190	0.044	0.009
<b>PG1</b>	0.029	<b>0.693</b>	0.046	0.119	0.080	-0.021	0.021	0.177	0.109	-0.065
<b>PG2</b>	0.079	<b>0.697</b>	-0.029	0.175	0.089	-0.047	0.007	0.139	-0.024	-0.081
<b>PG3</b>	-0.058	<b>0.740</b>	0.075	0.155	0.090	-0.049	-0.060	0.135	-0.027	-0.003
<b>PG4</b>	-0.089	<b>0.708</b>	0.040	0.228	0.124	-0.107	-0.024	0.031	0.034	-0.024
<b>PG5</b>	-0.076	<b>0.720</b>	0.025	0.197	0.120	-0.071	-0.009	0.161	0.108	0.012
<b>PG6</b>	0.007	<b>0.705</b>	0.014	0.198	0.162	-0.070	-0.032	0.119	0.060	0.122
<b>PI3</b>	0.020	-0.010	<b>0.923</b>	-0.088	0.031	0.155	-0.060	-0.018	0.004	0.016
<b>PI4</b>	0.102	0.070	<b>0.624</b>	-0.007	-0.053	0.151	-0.035	0.009	-0.023	0.069
<b>PI6</b>	0.001	0.108	<b>0.612</b>	-0.043	0.085	0.026	-0.112	0.093	-0.007	-0.118
<b>STCM1</b>	0.062	0.232	-0.029	<b>0.809</b>	0.217	-0.043	0.125	0.190	0.159	0.169
<b>STCM2</b>	0.064	0.230	-0.034	<b>0.809</b>	0.214	-0.048	0.128	0.186	0.157	0.166

<b>STCM3</b>	0.122	0.170	-0.049	<b>0.748</b>	0.246	-0.147	0.160	0.184	0.145	0.196
<b>STCM4</b>	0.144	0.185	-0.094	<b>0.671</b>	0.110	-0.062	0.077	0.217	0.106	0.048
<b>STCM5</b>	0.090	0.182	-0.119	<b>0.649</b>	0.146	-0.117	0.087	0.160	0.058	0.100
<b>STCM8</b>	0.120	0.144	-0.074	<b>0.668</b>	0.214	-0.189	0.143	0.183	0.159	0.009
<b>STCM9</b>	0.129	0.176	-0.050	<b>0.669</b>	0.245	-0.128	-0.005	0.273	0.126	0.108
<b>TA1</b>	-0.046	0.178	0.029	0.225	<b>0.817</b>	-0.142	-0.002	0.279	0.042	0.201
<b>TA2</b>	-0.069	0.155	0.072	0.204	<b>0.825</b>	-0.160	-0.040	0.201	0.116	0.046
<b>TA3</b>	-0.109	0.079	0.035	0.263	<b>0.843</b>	-0.119	-0.004	0.106	0.215	0.158
<b>TC2</b>	0.080	-0.066	0.175	-0.146	-0.088	<b>0.836</b>	-0.004	-0.057	-0.041	0.169
<b>TC3</b>	0.136	-0.087	-0.005	-0.093	-0.120	<b>0.729</b>	0.017	-0.024	0.061	0.118
<b>TC4</b>	0.164	-0.002	0.197	-0.056	-0.107	<b>0.622</b>	-0.008	0.080	0.020	0.088
<b>TC5</b>	0.121	-0.098	0.069	-0.110	-0.195	<b>0.757</b>	0.023	0.077	0.010	0.142
<b>TF1</b>	-0.084	0.020	-0.056	0.119	-0.015	0.079	<b>0.776</b>	-0.093	-0.019	0.139
<b>TF2</b>	-0.083	-0.016	-0.034	0.128	0.018	-0.049	<b>0.785</b>	-0.101	0.093	-0.001
<b>TF3</b>	-0.015	0.004	-0.109	0.115	-0.002	-0.028	<b>0.714</b>	-0.036	0.030	0.039
<b>TF4</b>	-0.006	-0.160	-0.104	0.059	-0.065	0.013	<b>0.669</b>	-0.087	0.004	0.064
<b>TF5</b>	0.004	-0.060	-0.120	0.052	-0.038	0.024	<b>0.663</b>	-0.150	0.087	-0.008
<b>TF6</b>	0.047	0.012	-0.027	0.103	-0.017	0.023	<b>0.695</b>	-0.057	0.096	0.093
<b>TM2</b>	0.093	0.085	-0.075	0.136	0.116	0.073	-0.042	<b>0.663</b>	0.015	0.095
<b>TM3</b>	0.141	0.203	-0.053	0.249	0.243	-0.002	-0.102	<b>0.782</b>	-0.001	0.082
<b>TM4</b>	0.192	0.101	0.084	0.185	0.187	-0.030	-0.037	<b>0.747</b>	0.054	0.073
<b>TM5</b>	0.076	0.093	0.010	0.180	0.102	0.023	-0.141	<b>0.673</b>	0.051	0.051
<b>TM8</b>	0.186	0.090	0.102	0.208	0.139	-0.013	-0.066	<b>0.693</b>	0.177	0.089
<b>TP1</b>	0.016	0.106	-0.003	0.171	0.130	0.023	0.015	0.050	<b>0.822</b>	-0.046

<b>TP2</b>	0.089	0.097	-0.003	0.142	0.148	-0.018	0.055	0.042	<b>0.812</b>	-0.045
<b>TP3</b>	0.052	-0.029	-0.022	0.158	0.127	-0.011	0.063	0.091	<b>0.790</b>	-0.129
<b>TP4</b>	0.048	-0.005	0.044	0.090	0.076	0.034	0.102	0.096	<b>0.747</b>	-0.001
<b>TR2</b>	0.033	-0.025	-0.074	0.124	0.236	0.139	0.046	0.084	-0.010	<b>0.798</b>
<b>TR3</b>	0.152	0.050	-0.034	0.148	0.060	0.068	0.063	0.083	-0.089	<b>0.824</b>
<b>TR1</b>	0.003	-0.044	0.050	0.113	0.117	0.255	0.085	0.094	-0.084	<b>0.765</b>



### **5.5.2.2 Internal Consistency Reliability**

To examine internal consistency reliability, Composite Reliability (CR) along with Cronbach's alpha (CA) are the most prevalent indicators used to test the internal consistency reliability, and they have been utilized in the current study (Peterson & Kim, 2013; Werts, Linn, & Joreskog, 1974). CA is a traditionally utilized standards for evaluating internal consistency reliability. It introduces an evaluation of the construct reliability according to the inter correlations of the indicators. CA assumes that each indicator has equal loadings and are equally reliable on the latent construct without considering the individual indicators reliability (Hair et al., 2014a; Hair et al., 2010; Henseler et al., 2009).

However, because CA has limitations, employing consistency reliability, which is indicated as CR is a better alternative measure (Hair et al., 2014a). CA assumes that all indicators are equally reliable (i.e., all the indicators have equal outer loadings on the construct). But PLS-SEM prioritizes the indicators according to their individual reliability. Moreover, Cronbach's alpha is sensitive to the number of items in the scale and generally tends to underestimate the internal consistency reliability. As such, it may be used as a conservative measure of internal consistency reliability. Due to Cronbach alpha's limitations in the population, it is more appropriate to apply a different measure of internal consistency reliability, which is referred to as composite reliability that takes into account the different outer loadings of the indicator variables (Hair et al., 2014a).

The values of both CA and CR should be equal to or exceed 0.70 (Hair et al., 2014; Valerie, 2012; Hair et al., 2011; Henseler et al., 2009). Nevertheless, the CR values of 0.60 to 0.70 are acceptable, whilst values above 0.95 are not desirable because all items are measuring the same issue and, therefore, are not a valid measure of the variable (Hair et al., 2014a). Table 5.17 shows the CR and CA values for all variables; the CR values of the variables loaded from 0.771 to 0.882, while CA values of the constructs ranged from 0.651 to 0.844. Consequently, the latent variables in the current study have a higher than the acceptable level of reliability. Thus, the conclusion can be made that the internal consistency reliability of the measures was verified and confirmed.

Table 5.17  
*Cronbach's alpha and Composite Reliability of the Construct*

Latent Construct	Cronbach's Alpha (CA)	Composite Reliability (CR)
Sales Tax Compliance	0.844	0.882
Public Governance	0.807	0.859
Tax Complexity	0.735	0.827
Tax Audit	0.773	0.867
Tax Rate	0.713	0.838
Tax Penalty	0.808	0.872
Tax Moral	0.768	0.842
Tax Fairness	0.817	0.864
Peer Influence	0.651	0.771
Patriotism	0.831	0.860

### 5.5.2.3 Convergent Validity

Convergent validity is the extent to which a measure correlates positively with alternative measures of the same construct (Hair et al., 2014a). Average Variance Extracted (AVE) has become a prevalent method used to verify the convergent

validity on the variable level as Hair et al., (2011) and Fornell and Larcker (1981) recommended. As a rule of thumb, the AVE of every latent variable should be higher than 0.50 for establishing adequate convergent validity (Hair et al., 2014a; Valerie, 2012). This means that this latent variable interprets and clarifies half or more of its items variance (Hair et al., 2014a; Henseler et al., 2009). In this current study, Table 5.18 shows that all the values of AVE ranged between 0.509 and 0.686 indicating an adequate convergent validity. Consequently, convergent validity was proven in this present study.

Table 5.18  
*Average Variance Extracted of the Constructs*

Latent Construct	Average Variance Extracted (AVE)
Sales Tax Compliance	0.519
Public Governance	0.505
Tax Complexity	0.547
Tax Audit	0.686
Tax Rate	0.633
Tax Penalty	0.629
Tax Moral	0.517
Tax Fairness	0.516
Peer Influence	0.539
Patriotism	0.510

#### 5.5.2.4 Discriminant Validity

Discriminant validity is the level to which each study variable is different from other study variables (Duarte & Raposo, 2010). To measure discriminant validity, the current study used the cross loadings of the items and Fornell-Larcker criterion as

Hair et al. (2014a) suggested. To do so, the Fornell and Larcker method was achieved by comparing the square roots of AVE with the correlations among the latent constructs (Fornell & Larcker, 1981). In this method, the square root of each latent construct's AVE should be greater than its highest correlation with any other latent construct. This criterion is considered as a more conservative method for evaluating discriminant validity (Hair et al., 2014a).

This study employed both methods in assessing discriminant validity. Table 5.19 clearly shows that all the square roots of AVE ranged between 0.713 and 0.828 and were greater than their correlations with the other latent constructs. This indicates that each latent construct shares more variance with its indicators (items) than with other latent constructs, and therefore confirmed discriminant validity. Additionally, the current study employed the cross-loading method to test discriminant validity. Table 5.20 presents the comparison results between the loadings of the indicators loadings with all their cross-loadings. All indicators load higher on the construct than others on reflective indicators, suggesting sufficient discriminant validity for further analysis. As shown in Table 5.19, all square roots of the AVE values exceeded the correlations of latent construct suggesting that the discriminant validity was established in the current study.

Table 5.19  
*AVE Square Root (Correlations among Constructs)*

	PA	PG	PI	STCM	TA	TC	TF	TM	TP	TR
<b>PA</b>	<b>0.714</b>									
<b>PG</b>	-0.034	<b>0.711</b>								
<b>PI</b>	0.023	0.038	<b>0.734</b>							
<b>STCM</b>	0.144	0.261	-0.086	<b>0.721</b>						
<b>TA</b>	-0.093	0.162	0.053	0.282	<b>0.828</b>					
<b>TC</b>	0.152	-0.093	0.142	-0.147	-0.167	<b>0.740</b>				
<b>TF</b>	-0.042	-0.025	-0.092	0.144	-0.017	0.010	<b>0.719</b>			
<b>TM</b>	0.197	0.169	0.022	0.276	0.230	0.008	-0.112	<b>0.713</b>		
<b>TP</b>	0.062	0.060	-0.001	0.184	0.156	0.006	0.066	0.084	<b>0.793</b>	
<b>TR</b>	0.088	-0.002	-0.028	0.163	0.167	0.183	0.080	0.108	-0.078	<b>0.796</b>

Table 5.20  
*Discriminant Validity Assessment using Indicators Loadings and Cross Loadings*

	PA	PG	PI	STCM	TA	TC	TF	TM	TP	TR
<b>PA1</b>	<b>0.584</b>	0.020	0.087	0.031	-0.152	0.160	0.030	0.045	-0.012	0.013
<b>PA2</b>	<b>0.624</b>	-0.104	0.057	0.017	-0.110	0.090	-0.007	0.126	0.043	0.008
<b>PA3</b>	<b>0.645</b>	0.069	0.190	0.061	-0.144	0.178	-0.046	0.082	0.096	0.176
<b>PA4</b>	<b>0.758</b>	-0.041	0.046	0.113	-0.004	0.109	0.082	0.069	0.028	0.086
<b>PA5</b>	<b>0.828</b>	-0.064	-0.057	0.139	-0.097	0.108	-0.087	0.233	0.059	0.077
<b>PA6</b>	<b>0.808</b>	-0.017	-0.030	0.131	-0.042	0.093	-0.083	0.190	0.044	0.009
<b>PG1</b>	0.029	<b>0.693</b>	0.046	0.119	0.080	-0.021	0.021	0.177	0.109	-0.065
<b>PG2</b>	0.079	<b>0.697</b>	-0.029	0.175	0.089	-0.047	0.007	0.139	-0.024	-0.081

<b>PG3</b>	-0.058	<b>0.740</b>	0.075	0.155	0.090	-0.049	-0.060	0.135	-0.027	-0.003
<b>PG4</b>	-0.089	<b>0.708</b>	0.040	0.228	0.124	-0.107	-0.024	0.031	0.034	-0.024
<b>PG5</b>	-0.076	<b>0.720</b>	0.025	0.197	0.120	-0.071	-0.009	0.161	0.108	0.012
<b>PG6</b>	0.007	<b>0.705</b>	0.014	0.198	0.162	-0.070	-0.032	0.119	0.060	0.122
<b>PI3</b>	0.020	-0.010	<b>0.923</b>	-0.088	0.031	0.155	-0.060	-0.018	0.004	0.016
<b>PI4</b>	0.102	0.070	<b>0.624</b>	-0.007	-0.053	0.151	-0.035	0.009	-0.023	0.069
<b>PI6</b>	0.001	0.108	<b>0.612</b>	-0.043	0.085	0.026	-0.112	0.093	-0.007	-0.118
<b>STCM1</b>	0.062	0.232	-0.029	<b>0.809</b>	0.217	-0.043	0.125	0.190	0.159	0.169
<b>STCM2</b>	0.064	0.230	-0.034	<b>0.809</b>	0.214	-0.048	0.128	0.186	0.157	0.166
<b>STCM3</b>	0.122	0.170	-0.049	<b>0.748</b>	0.246	-0.147	0.160	0.184	0.145	0.196
<b>STCM4</b>	0.144	0.185	-0.094	<b>0.671</b>	0.110	-0.062	0.077	0.217	0.106	0.048
<b>STCM5</b>	0.090	0.182	-0.119	<b>0.649</b>	0.146	-0.117	0.087	0.160	0.058	0.100
<b>STCM8</b>	0.120	0.144	-0.074	<b>0.668</b>	0.214	-0.189	0.143	0.183	0.159	0.009
<b>STCM9</b>	0.129	0.176	-0.050	<b>0.669</b>	0.245	-0.128	-0.005	0.273	0.126	0.108
<b>TA1</b>	-0.046	0.178	0.029	0.225	<b>0.817</b>	-0.142	-0.002	0.279	0.042	0.201
<b>TA2</b>	-0.069	0.155	0.072	0.204	<b>0.825</b>	-0.160	-0.040	0.201	0.116	0.046
<b>TA3</b>	-0.109	0.079	0.035	0.263	<b>0.843</b>	-0.119	-0.004	0.106	0.215	0.158
<b>TC2</b>	0.080	-0.066	0.175	-0.146	-0.088	<b>0.836</b>	-0.004	-0.057	-0.041	0.169
<b>TC3</b>	0.136	-0.087	-0.005	-0.093	-0.120	<b>0.729</b>	0.017	-0.024	0.061	0.118
<b>TC4</b>	0.164	-0.002	0.197	-0.056	-0.107	<b>0.622</b>	-0.008	0.080	0.020	0.088
<b>TC5</b>	0.121	-0.098	0.069	-0.110	-0.195	<b>0.757</b>	0.023	0.077	0.010	0.142
<b>TF1</b>	-0.084	0.020	-0.056	0.119	-0.015	0.079	<b>0.776</b>	-0.093	-0.019	0.139
<b>TF2</b>	-0.083	-0.016	-0.034	0.128	0.018	-0.049	<b>0.785</b>	-0.101	0.093	-0.001
<b>TF3</b>	-0.015	0.004	-0.109	0.115	-0.002	-0.028	<b>0.714</b>	-0.036	0.030	0.039

<b>TF4</b>	-0.006	-0.160	-0.104	0.059	-0.065	0.013	<b>0.669</b>	-0.087	0.004	0.064
<b>TF5</b>	0.004	-0.060	-0.120	0.052	-0.038	0.024	<b>0.663</b>	-0.150	0.087	-0.008
<b>TF6</b>	0.047	0.012	-0.027	0.103	-0.017	0.023	<b>0.695</b>	-0.057	0.096	0.093
<b>TM2</b>	0.093	0.085	-0.075	0.136	0.116	0.073	-0.042	<b>0.663</b>	0.015	0.095
<b>TM3</b>	0.141	0.203	-0.053	0.249	0.243	-0.002	-0.102	<b>0.782</b>	-0.001	0.082
<b>TM4</b>	0.192	0.101	0.084	0.185	0.187	-0.030	-0.037	<b>0.747</b>	0.054	0.073
<b>TM5</b>	0.076	0.093	0.010	0.180	0.102	0.023	-0.141	<b>0.673</b>	0.051	0.051
<b>TM8</b>	0.186	0.090	0.102	0.208	0.139	-0.013	-0.066	<b>0.693</b>	0.177	0.089
<b>TP1</b>	0.016	0.106	-0.003	0.171	0.130	0.023	0.015	0.050	<b>0.822</b>	-0.046
<b>TP2</b>	0.089	0.097	-0.003	0.142	0.148	-0.018	0.055	0.042	<b>0.812</b>	-0.045
<b>TP3</b>	0.052	-0.029	-0.022	0.158	0.127	-0.011	0.063	0.091	<b>0.790</b>	-0.129
<b>TP4</b>	0.048	-0.005	0.044	0.090	0.076	0.034	0.102	0.096	<b>0.747</b>	-0.001
<b>TR2</b>	0.033	-0.025	-0.074	0.124	0.236	0.139	0.046	0.084	-0.010	<b>0.798</b>
<b>TR3</b>	0.152	0.050	-0.034	0.148	0.060	0.068	0.063	0.083	-0.089	<b>0.824</b>
<b>TR1</b>	0.003	-0.044	0.050	0.113	0.117	0.255	0.085	0.094	-0.084	<b>0.765</b>

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In short, the measurement model of the present study was examined by means of several tests including indicator reliability, internal consistency test, convergent validity and 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. The results of all the tests confirmed that the research model was valid and reliable.

### **5.5.3 Assessment of Structural Model**

After analysing and assessing the measurement model, the following step in the PLS modelling is to test the inner model (structural model). Typically, there are four requirements to assess the structure model comprising: 1) the  $R^2$  values, effect size ( $f^2$ ), predictive relevance ( $Q^2$ ) of the model, and path coefficient ( $\beta$ ) to test the study hypotheses (Hair et al., 2014a; Valerie, 2012; Chin, 2010; Henseler et al., 2009). Additionally, the Goodness of Fit (GoF) that Tenenhaus, Esposito, Chatelin and Lauro (2005) suggested was used. Finally, bootstrapping was employed to examine the significance level of the hypothesis in the study model.

#### **5.5.3.1 R-square**

Usually, the coefficient of determination ( $R^2$ ) is considered to be an important requirement for the inner model in PLS-SEM (Hair et al., 2014a; Hair et al., 2012).  $R^2$  represents a value of variance in the dependent construct (endogenous) that can be interpreted by one or more independent constructs (exogenous). According to Hair et al. (2014a), there is no generalizable statement for the acceptable level value of  $R^2$ .

Whether a  $R^2$  is considered acceptable or not depends mainly on the context of research, research area, and model complexity.

Consequently, several criteria are recommended when assessing the  $R^2$  values. Chin (1998) suggested that  $R^2$  findings of 0.67 or above, 0.33 or above, 0.19 or above for dependent latent variables can be considered as substantial, moderate, and weak respectively. Cohen (1988) recommended that  $R^2$  values of 0.02, 0.13 and 0.26 for the endogenous variable can be interpreted as weak, moderate, and substantial respectively. Falk and Miller (1992) stated that  $R^2$  values equal to 0.10 can be acceptable as a minimum level. However, the present study follows Cohen (1988) more commonly utilized standard in evaluating the values of variance explained ( $R^2$ ) by the exogenous variables. Hence, following Cohen's (1988) criteria, the endogenous latent construct achieved acceptable levels of  $R^2$  result, which was considered as substantial. Figure 5.2 and Table 5.21 show the  $R^2$  results of the endogenous variable (sales tax compliance) in this current study.

Table 5.21  
*Variance Explained in the Endogenous Latent Construct*

Latent Construct	Variance Explained ( $R^2$ )
Sales Tax Compliance	0.384 substantial

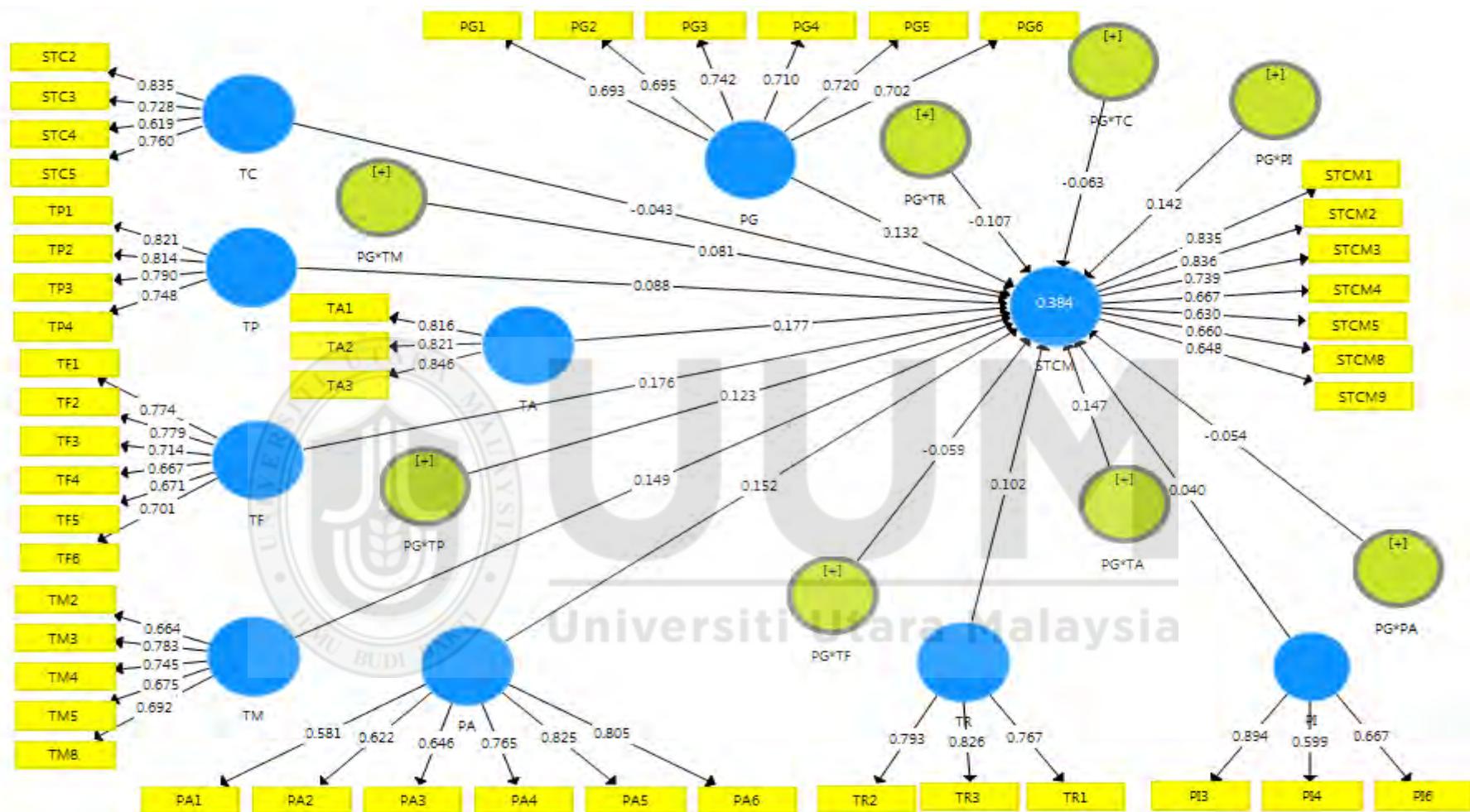


Figure 5.2  
R-square Value of the Model

### 5.5.3.2 Effect Sizes

Effect size ( $f^2$ ) value is an evaluation to describe the proportional effect of a specified exogenous construct (independent variable) on endogenous construct (dependent variable) by observing the changes in the value of  $R^2$  after omitting a certain exogenous variable from the model (Hair et al., 2014a; Chin, 2010). The impact size can be calculated as:

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

$R^2$  included is the  $R^2$  obtained on the endogenous variable when the exogenous variable is utilized in the structural model whilst  $R^2$  excluded is the  $R^2$  obtained on the endogenous variable when the exogenous variable is not utilized in the structural model. Based on Cohen's (1988), suggestion  $f^2$  values of 0.02 represent small, 0.15 represent medium, and 0.35 represent large impacts in the structural model.

Table 5.22 shows that six exogenous variables had an effect size ( $f^2$ ) of greater than the suggested value (0.02). They are tax complexity, tax audit, tax penalty, tax moral, tax fairness and patriotism. The impact that variable on sales tax compliance has a small effect. Yet, it is at an acceptable level.

Table 5.22

*Effect Sizes of the Exogenous Latent Variables on Endogenous Latent Variable*

Exogenous Latent Variable	$f^2$	Effect sizes
Tax Complexity	0.028	small
Tax Audit	0.039	small
Tax Rate	0.017	very small
Tax Penalty	0.019	small
Tax Moral	0.044	small
Tax Fairness	0.029	small
Peer Influence	0.004	very small
Patriotism	0.023	small

### 5.5.3.3 Predictive Relevance of the Model

Besides considering the effect sizes ( $f^2$ ) and  $R^2$  values as measures to assess the quality of the structural model, according to Hair et al.'s (2010) recommendation, researchers who utilize PLS modelling should use measures to point out the model's predictive relevance to assessing the quality of models. Sattler, Völckner, Riediger and Ringle (2010) suggested the blindfolding processes to examine the predictive relevance ( $Q^2$ ) of the structure model. However, the blindfolding procedure is only applied to endogenous variables that have a reflective measurement model specification (Henseler et al., 2009). The  $Q^2$  value is assessed by construct cross-validated redundancy (Hair et al., 2014b; Ringle et al, 2012). In this study, therefore, a blindfolding procedure was employed to the endogenous latent variables because the endogenous variables of the study were reflective in nature.

Based on Hair et al. (2011) and Henseler et al. (2009), when the cross-validated redundancy measure ( $Q^2$ ) value is greater than zero, this indicates the predictive

relevance of the model. Conversely, values of below than zero indicate a lack of predictive relevance.

$$Q^2 = 1 - \frac{SSE}{SSO}$$

Following this standard, the cross-validation redundancy measure ( $Q^2$ ) for the endogenous variable (sales tax compliance) was 0.095, hence that model has a predictive relevance as shown in the following Table 5.23.

Table 5.23  
*Construct Cross-Validated Redundancy ( $Q^2$ )*

Endogenous latent variable	SSO	SSE	1-SSE/SSO
Sales Tax Compliance	1,484.000	1,342.739	0.095

#### 5.5.3.4 Goodness of Fit of the Model

PLS has only a single measure goodness of fit (GoF), which Tenenhaus et al (2005) proposed. A global fit measure (GoF) for PLS path modelling can be defined as the geometric mean of the average communality and average  $R^2$  for the endogenous constructs. The main purpose of the goodness of fit measure is to explain the variance extracted by both the measurement model and structure model (Chin, 2010).

The GoF can be calculated by the following formula.

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

In this study, the GoF value of the model was 0.446, which has been attained as follows:

$$GOF = \sqrt{0.384 \times 0.519} = 0.446$$

In comparing the GoF value of this study with the threshold values of GoF that Wetzels et al. (2009) recommends (less than 0.1 represents no fit, between 0.1-0.25 represents small, between 0.25-0.36 represents medium, and greater than 0.36 represents large), the conclusion can be made that the model GoF was large indicating a sufficient of the global PLS model validity.

#### **5.5.3.5 Testing of Direct Hypotheses**

After the structural model and measurement model have been confirmed to be valid and reliable, the following stage in PLS modelling was to examine the hypothesised relationships. Usually, sign, path coefficient ( $\beta$ ), and t value are used for hypotheses testing in PLS (Hair et al., 2014a). To test the hypotheses, the current study used the PLS algorithm and the standard bootstrapping procedure with 5000 bootstrap samples and 212 cases to assess the significance of the path coefficients ( $\beta$ ) using a one-tailed test (Hair et al., 2014a). Where the t-value falls between 1.65 to 2.33 the value is significant at the level of 0.05, while a t-value higher than 2.33 is significant at the level of 0.01.

Table 5.24 and Figure 5.3 provide a summary of the tests results that were performed in the present study for hypothesised relationships (direct effect) by path coefficient values and the bootstrapping, which are discussed further in the pages that follow.

Table 5.24

*Result of Hypotheses Testing (Direct Relationship)*

H	Relationship	Path coefficient	T – Value	P – Value	Decision
H1	TC -> STCM	-0.156	2.660	0.008**	Supported
H2	TA -> STCM	0.190	2.941	0.003**	Supported
H3	TR -> STCM	0.121	1.946	0.052	Not Supported
H4	TP -> STCM	0.125	2.200	0.028*	Supported
H5	TM -> STCM	0.197	2.865	0.004**	Supported
H6	TF -> STCM	0.153	2.587	0.010**	Supported
H7	PI -> STCM	0.060	1.235	0.217	Not Supported
H8	PA -> STCM	0.141	2.303	0.021*	Supported

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

Based on the findings presented in Table 5.24 and Figure 5.3, the results of relationships between the exogenous variables and the endogenous variable were as following:

H1: The finding illustrated that the predicted relationship between tax complexity (TC) and sales tax compliance was significant and negative ( $\beta = -0.156$ ,  $t = 02.660$ ,  $p < 0.01$ ), and, thus, the hypothesis was supported.

H2: The path from tax audit (TA) to sales tax compliance was significant and positive ( $\beta = 0.190$ ,  $t = 2.941$ ,  $p < 0.01$ ). This implies that the tax audit affected the extent of sales tax compliance. Therefore, the hypothesis was supported.

H3: The path of tax rate (TR) to sales tax compliance was insignificant ( $\beta = 0.121$ ,  $t = 1.946$ ,  $p > 0.05$ ). Thus, the hypothesis was not supported.

H4: The relationship between (TP) tax penalty and sales tax compliance was significant and positive ( $\beta = 0.125$ ,  $t = 2.200$ ,  $p < 0.05$ ), indicating that as the extent of tax increases; the sales tax compliance increases accordingly. Therefore, H4 was supported.

H5: The result provided support for H8 ( $\beta = 0.197$ ,  $t = 2.865$ ,  $p < 0.01$ ). This signifies that a significant positive relationship exists between (TM) tax moral and sales tax compliance.

H6: The path from (TF) tax fairness to sales tax compliance was significant and positive relationship exists between positive ( $\beta = 0.153$ ,  $t = 2.587$ ,  $p < 0.01$ ), suggesting that as the extent of tax fairness increases, so too does the increase of sales tax compliance. Hence, H6 was supported.

H7: The finding showed that (PI) peer influence had an insignificant relationship with sales tax compliance ( $\beta = 0.060$ ,  $t = 1.235$ ,  $p > 0.05$ ). Thus, the hypothesis was not supported.

H8: The finding provided support for H8 ( $\beta = 0.141$ ,  $t = 2.303$ ,  $p < 0.05$ ). This suggests that a significant positive relationship exists between (PA) patriotism and sales tax compliance.

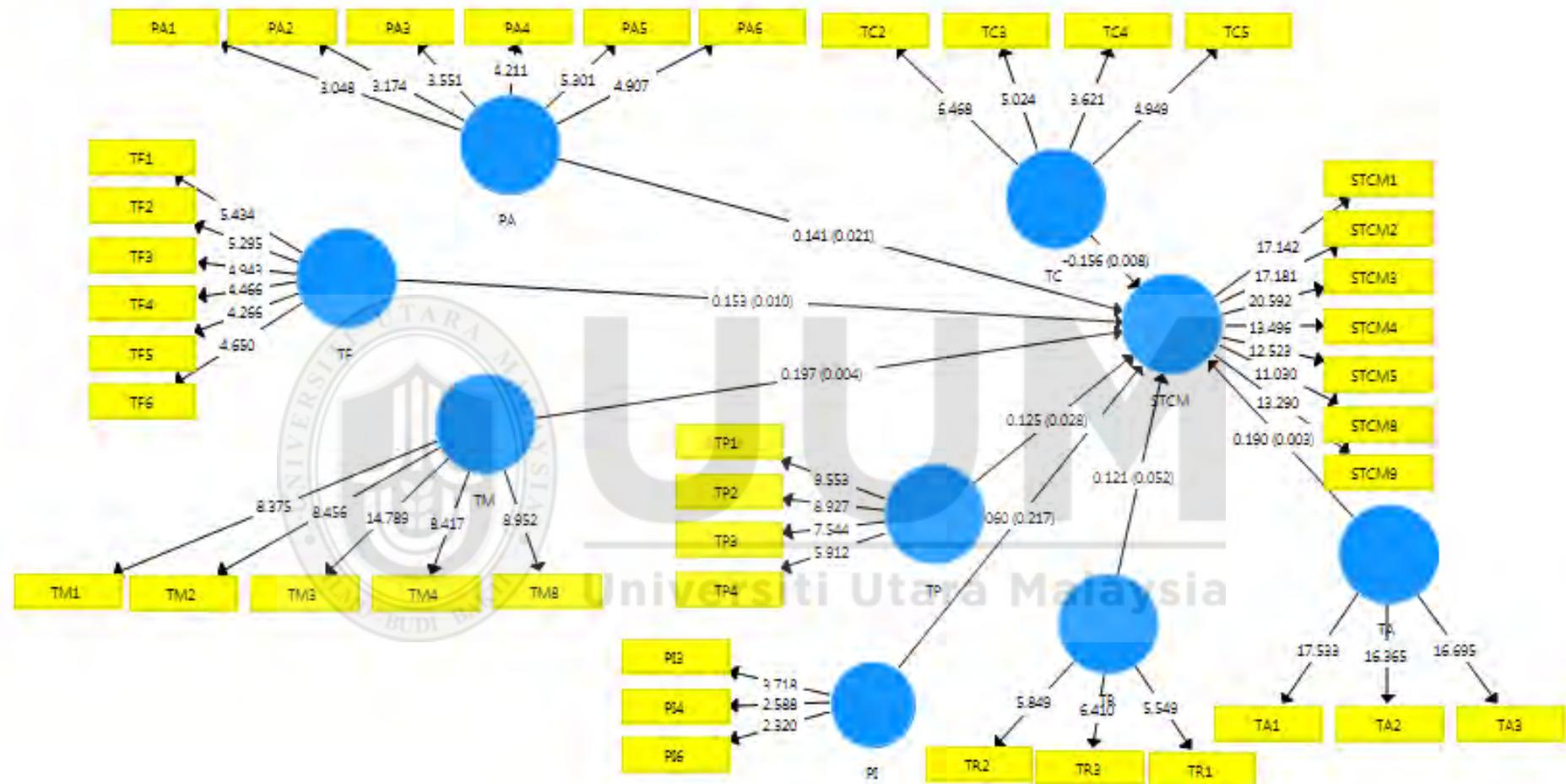


Figure 5.3  
*PLS Bootstrapping for the Study Structural Model: Direct Hypotheses*

### 5.5.3.6 Testing of Moderating Effect

Moderator testing was utilized to reveal whether a moderating impact (or indirect effect) of exogenous variables is present an endogenous variable. Moderation is introduced when there is impact of an independent variable on a dependent variable relying on the level of a third variable called a moderator variable, which reacts with the exogenous variable so as to explain and interpret the endogenous variable (Edwards & Lambert, 2007; Baron & Kenny, 1986). In the present study, public governance (PG) was hypothesised to moderate the relationship between tax complexity, tax audit, tax rate, tax penalty, tax fairness, tax moral, peer influence, patriotism and sales tax compliance. SmartPLS 3.0 software was applied to evaluate the moderating impact of public governance.

To integrate the moderating impact into path model, PLS- SEM needs the interaction term to be modelled as an extra latent variable called the "interaction latent construct". In PLS-SEM, testing like a construct can be done through two methods comprising: 1) the product indicator, the interaction impact is shaped by generating a latent interaction variable in which its items are evaluated by multiplying all predictor's items with all moderator items (Hair et al., 2014a), and 2) the two-stage approach, in which the construct scores of the moderator and predictor are calculated and saved. Then, the latent interaction variables are made in which its items are evaluated by multiplying the saved scores of both the moderator and predictor (Hair et al., 2014a). The first method is recommended to be used when the moderator is a reflective variable, whereas the second method is recommended to be

used when the moderator is a second order construct or the moderator has formative indicators (Hair et al., 2014a; Hair et al., 2011).

In the present study, public governance is constructed as a reflective variable; the current study followed the first method (product indicator) for constructing the interaction latent constructs. Hence, this study has generated eight interaction latent constructs between public governance and each specified relationship. In addition to that, with respect to the interaction impact of public governance, the interaction latent constructs of public governance  $\times$  tax complexity, public governance  $\times$  tax audit, public governance  $\times$  tax rate, public governance  $\times$  tax penalty, public governance  $\times$  tax moral, public governance  $\times$  tax fairness, public governance  $\times$  peer influence, public governance  $\times$  patriotism, using the bootstrapping procedure with a 5000 resample. Because the hypotheses between public governance and the specified relationships were non-directional, this study tested them as two-tailed hypotheses. Therefore, when the magnitude of the resulting empirical t-value is above 1.96, it can be suggested that the path coefficient is significantly different from zero at a significance level of 5%. The following Table 5.25 shows details the moderating effects and the hypotheses testing results.

Table 5.25  
*Result of Hypotheses Testing (Moderating Effect)*

H	Relationship	Path coefficient	T –Value	P – Value	Decision
H9	PG×TC -> STCM	-0.063	0.900	0.368	Not Supported
H10	PG×TA -> STCM	0.147	2.206	0.028*	Supported
H11	PG×TR -> STCM	-0.107	1.580	0.115	Not Supported
H12	PG×TP -> STCM	0.123	2.003	0.046*	Supported
H13	PG×TM -> STCM	0.081	1.198	0.232	Not Supported
H14	PG×TF -> STCM	-0.059	1.025	0.306	Not Supported
H15	PG×PI -> STCM	0.142	2.398	0.017*	Supported
H16	PG×PA -> STCM	-0.054	1.029	0.304	Not Supported

Note: Significant at \*  $p < 0.05$ , (two-tailed test)

H9: The finding is presented in the Table 5.25. The interaction between public governance and tax complexity is insignificant and weak ( $\beta = -0.063$ ,  $t = 0.900$ ,  $p > 0.05$ ). Thus, public governance does not have either a negative or a positive moderating impact on the role of tax complexity on sales tax compliance. Thus, H9a has been rejected.

H10: Predicted that public governance would moderate the relationship between tax audit and sales tax compliance. The study result (see Table 5.25) showed support for H10 ( $\beta = 0.147$ ,  $t = 2.206$ ,  $p < 0.05$ ). This implies that public governance had a moderating effect, indicating that a high level of public governance diminishes the positive relationship between tax audit and sales tax compliance. Figure 5.4 indicates that the interaction pattern is in alignment with H10; that is, tax audit is more effective on sales tax compliance when public governance is high.

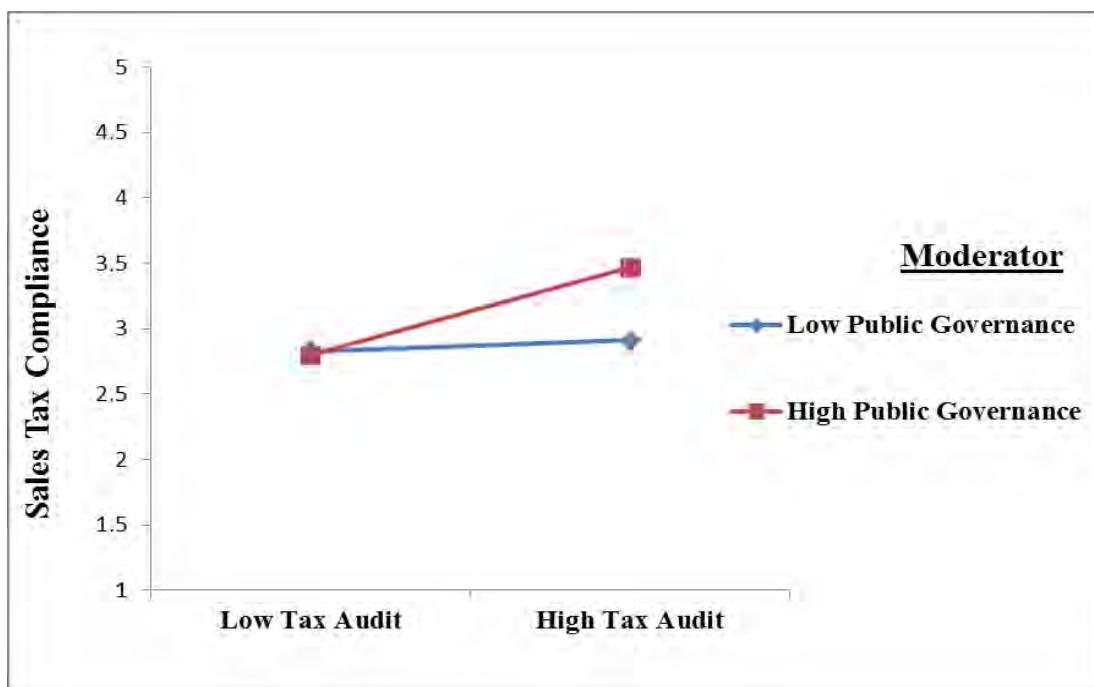


Figure 5.4  
*The Interaction Effect between Public Governance and Tax Audit*

H11: Posited that public governance would moderate the relationship between tax rate and sales tax compliance. The study's findings (see Table 5.25) provided no support for H11 ( $\beta = -0.107$ ,  $t = 1.580$ ,  $p > 0.05$ ). This indicates that public governance had no moderating effect.

H12: Predicted that public governance would moderate the relationship between tax penalty and sales tax compliance. The study's result as reported in Table 5.25, suggested the interaction effect between public governance and tax penalty was positively ( $\beta = 0.123$ ,  $t = 2.003$ ,  $p < 0.05$ ). Hence, a high level of public governance amplifies the positive association between tax penalty and sales tax compliance of SMEs. Thus, public governance has a positive moderating effect on the relationship

between tax penalty and sales tax compliance, whereby high level of public governance diminishes the positive relationship between tax penalty and sales tax compliance. Figure 5.5 suggests that the interaction pattern aligns with H12; that is, tax penalty is more effective on sales tax compliance when public governance is high. Therefore, H12 has been supported.

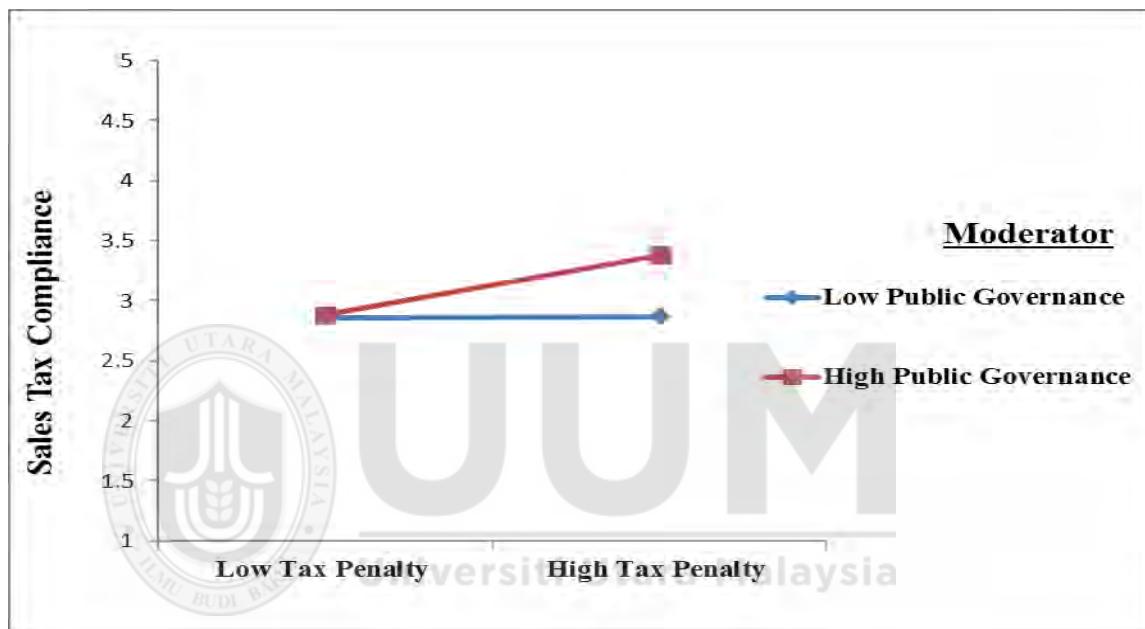


Figure 5.5  
*The Interaction Effect between Public Governance and Tax Penalty*

H13: Predicted that public governance would moderate the relationship between tax moral and sales tax compliance. The study findings as presented in Table 5.25, indicate that the interaction term between public governance and tax moral is weak and insignificant ( $\beta = 0.081$ ,  $t = 1.198$ ,  $p > 0.05$ ). Thus, public governance does not have either a negative or positive moderating impact on the role of tax moral or sales tax compliance. Thus, H13 has been rejected.

H14: Posited that public governance would moderate the relationship between tax fairness and sales tax compliance. The study's findings (Table 5.25) provided no support for H14 ( $\beta = -0.059$ ,  $t = 1.025$ ,  $p > 0.05$ ). This indicates that the public governance had no moderating effect on the association between tax fairness and sales tax compliance. Thus, the hypothesis was not supported.

H15: Posited that public governance would moderate the relationship between peer influence and sales tax compliance. The study's findings (see Table 5.25) provided support for H15 ( $\beta = 0.142$ ,  $t = 2.398$ ,  $p < 0.05$ ), where the interaction was positive between public governance and peer influence, indicating that a high level of public governance diminishes the positive relationship between peer influence and sales tax compliance. Figure 5.6 points out that the interaction pattern is consistent with H15; that is, peer influence is more effective on sales tax compliance when public governance is high.

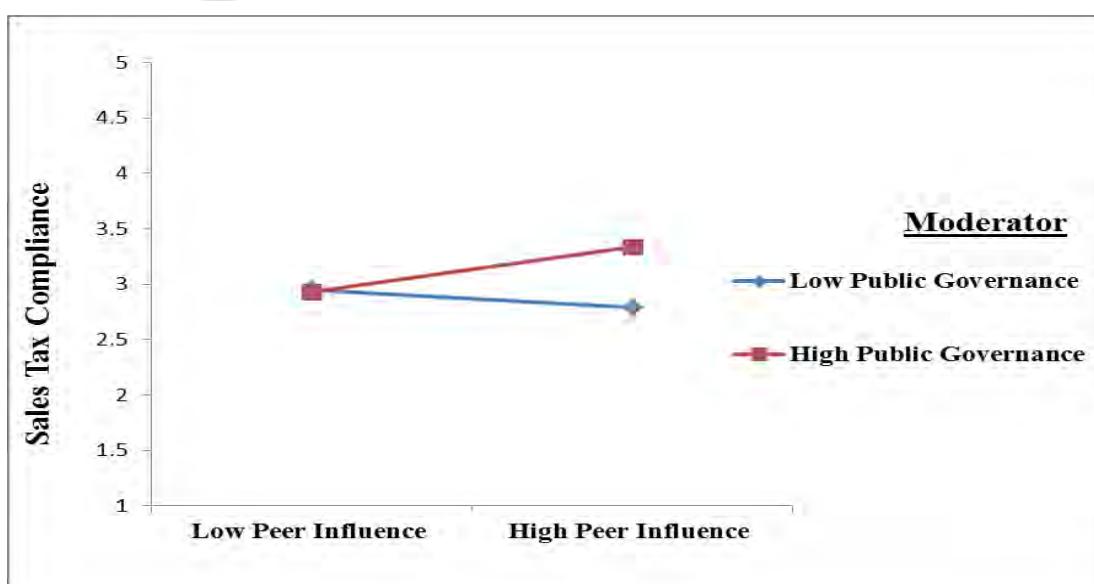


Figure 5.6  
*The Interaction Effect between Public Governance and Peer influence*

H16: Predicted that public governance would moderate the association between patriotism and sales tax compliance. The study's results as reported in Table 5.25 suggest that the interaction between public governance and patriotism is insignificant ( $\beta = -0.054$ ,  $t = 1.029$ ,  $p > 0.05$ ). Thus, public governance has neither a positive nor a negative moderating impact on the role of patriotism on sales tax compliance. Thus, H16 has been rejected. Figure 5.7 shows a summary of the tests performed in the study to obtain the results for the indirect hypotheses developed in chapter four.



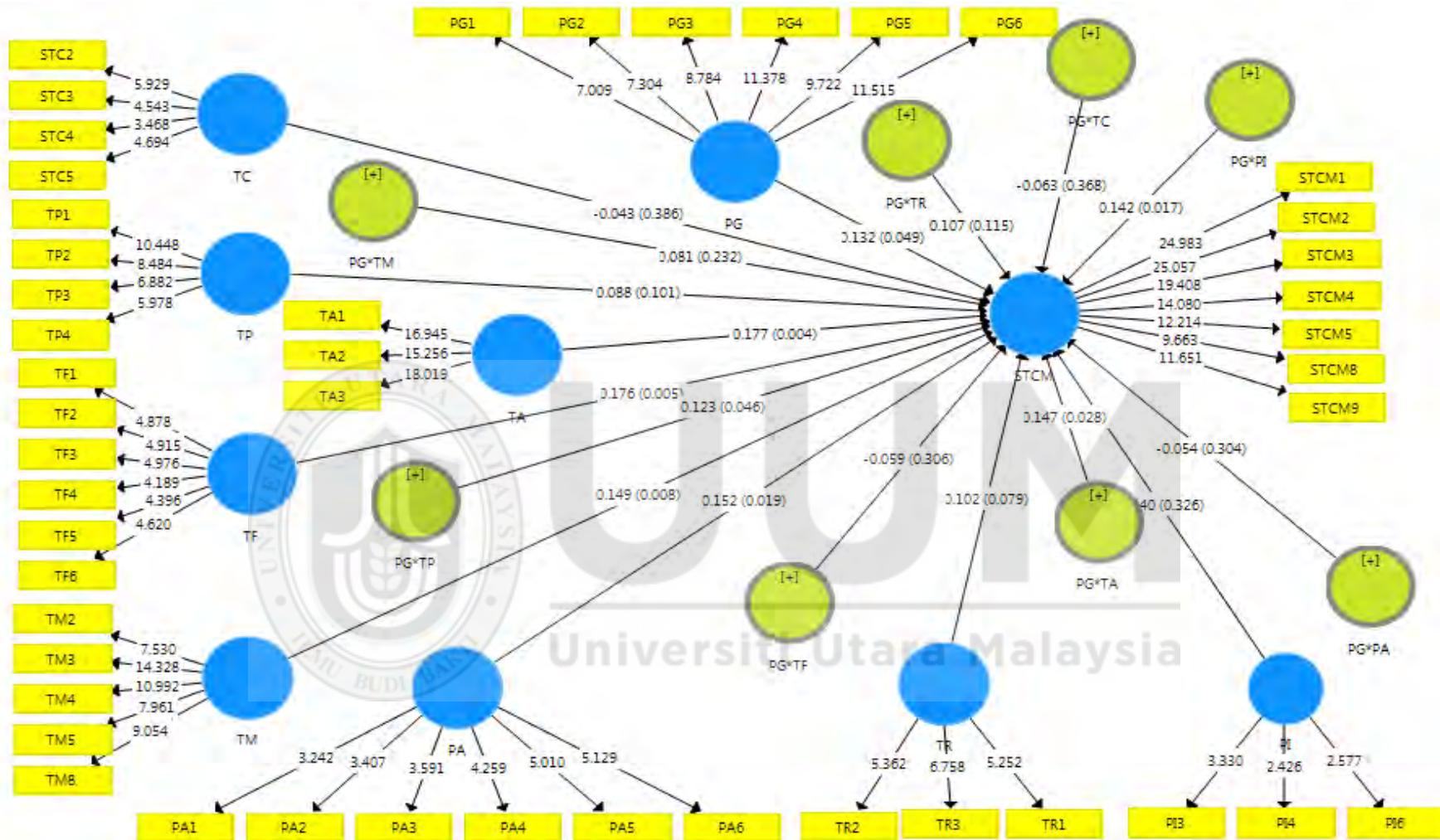


Figure 5.7  
PLS Bootstrapping for the Study Structural Model: Indirect Hypotheses

### 5.5.3.7 The Effect Size of Public Governance as a Moderator

To test the power of the interaction impacts of public governance on the associations between tax complexity, tax audit, tax rate, tax penalty, tax fairness, tax moral, peer influence, patriotism with sales tax compliance, Chin (2010) recommends comparing the  $R^2$  of the model with and without moderation. The variation in  $R^2$  is utilized to evaluate the effect size ( $f^2$ ) for the moderator. In line with the rule of thumb,  $f^2$  values of 0.35, 0.15 and 0.2 are recommended to be considered as large, moderate, and small effects respectively (Cohen 1988). Therefore, the strength of the interaction impact could be expressed utilizing the same formula described previously for the main impact model (Cohen, 1988):

$$\text{Effect size: } (f^2) = \frac{R^2_{\text{model with moderator}} - R^2_{\text{model without moderator}}}{1 - R^2_{\text{model with moderator}}}$$

As presented in Table 5.26, the effect size of the moderate was found to have an effect size ( $f^2$ ) of 0.26, suggesting that the interaction effect was large. Thus, it can be concluded that the model in which public governance is proposed to moderate the relations between exogenous constructs and endogenous construct and have a significantly greater explanatory strength than the main model.

Table 5.26  
*Effect Sizes of the Moderator*

Moderating	R <sup>2</sup> Included	R <sup>2</sup> Excluded	f <sup>2</sup>	Effect Size
Public Governance	0.384	0.222	0.26	Moderate

### 5.5.3.8 Summary of Hypotheses Testing

Table 5.27 shows a summary of the results. The evaluations for the structural model have been tested without and with a moderator. With regards to the main effect model (direct relationship), the first hypothesis, that tax complexity has a negative relationship with sales tax compliance, was supported. The second hypothesis, that tax audit effect positively on sales tax compliance, was accepted. The third hypothesis, that the tax rate has a negative association with sales tax compliance, was not supported. The fourth hypothesis, that tax penalty was associated positively with the sales tax compliance, was supported. The fifth hypothesis, that tax moral has a positively effect on the sales tax compliance, was supported. The sixth hypothesis, that tax fairness has a positive relationship with the sales tax compliance, was supported. The seventh hypothesis that the peer influence positive influences on the sales tax compliance was not supported. Finally, the eight hypothesis that patriotism relates positively with the sales tax compliance, was supported.

Table 5.27  
*Summary of Hypotheses Testing (Direct Relationship)*

No	Hypothesis statement	Sig/Ns	Decision
H1	There is a negative relationship between tax complexity and sales tax compliance.	Sig (-)	Supported
H2	There is a positive relationship between tax audit and sales tax compliance.	Sig (+)	Supported
H3	There is a negative relationship between tax rate and sales tax compliance.	Ns	Not Supported
H4	There is a positive relationship between tax penalty and sales tax compliance.	Sig (+)	Supported
H5	There is a positive relationship between tax moral and sales tax compliance.	Sig (+)	Supported
H6	There is a positive relationship between tax fairness and sales tax compliance.	Sig (+)	Supported
H7	There is a positive relationship between peer influence and sales tax compliance.	Ns	Not Supported
H8	There is a positive relationship between patriotism and sales tax compliance.	Sig (+)	Supported

*Note:* Sig: significant, Ns: not significant, (+) a positive relationship, and (-) a negative relationship.

Regarding to the interaction effect model (moderator) as presented in Table 5.28, the moderation role of public governance has been examined. The findings illustrate that public governance moderates the role of tax audit, tax penalty, and peer influence with sales tax compliance, while results show otherwise for the postulated hypotheses that public governance moderates the role of tax complexity, tax rate, tax moral, tax fairness, and patriotism with sales tax compliance.

**Table 5.28**  
*Summary of Hypotheses Testing (Moderating Effect)*

No	Hypothesis statement	Sig/Ns	Decision
H9	Public governance moderates the relationship between tax complexity and sales tax compliance	Ns	Not Supported
H10	Public governance moderates the relationship between tax audit and sales tax compliance	Sig (+)	Supported
H11	Public governance moderates the relationship between tax rate and sales tax compliance	Ns	Not Supported
H12	Public governance moderates the relationship between tax penalty and sales tax compliance	Sig (+)	Supported
H13	Public governance moderates the relationship between tax moral and sales tax compliance	Ns	Not Supported
H14	Public governance moderates the relationship between tax fairness and sales tax compliance	Ns	Not Supported
H15	Public governance moderates the relationship between peer influence and sales tax compliance	Sig (+)	Supported
H16	Public governance moderates the relationship between patriotism and sales tax compliance	Ns	Not Supported

*Note:* Sig: significant, Ns: not significant, (+) a positive relationship, and (-) a negative relationship.

## 5.6 Summary of the Chapter

This chapter has been designed to empirically fulfil the research aims and to answer the questions of research, depending on SPSS. 23 and PLS.3 for cleaning data and hypothesis testing. Descriptive analysis of the characteristics of respondents is presented, and the study constructs the data, thereafter the outer model (measurement

model) was tested to ensure the validity and reliability. Then, the inner model (structural model) was tested to examine the hypothesised associations, as being presented and reported in this chapter. The following chapter presents the discussion of the results of the study together with the contribution and its implications.



# **CHAPTER SIX**

## **DISCUSSION AND CONCLUSION**

### **6.1 Introduction**

The current chapter discusses the study findings in the context of research questions, hypotheses testing and literature review. The discussion of the research findings is made based on the analysed and presented results in the previous chapter. In addition, this chapter offers and deliberates on the theoretical and practical implications of the study. The limitations of the present study and future research suggestions are also being highlighted. Finally, a conclusion is stated.

### **6.2 Overview of the Results**

The present study primarily evaluates the effect of tax complexity, tax audit, tax rate, tax penalty, tax moral, tax fairness, peer influence and patriotism on the sales tax compliance of Jordanian SMEs. This study also investigates the moderating effect of public governance on the relationship between those above- mentioned factors with sales tax compliance. Generally, the current study has succeeded in advancing the state of knowledge on the determinants of sales tax compliance by addressing the following research objectives and hypotheses as summarized in Table 6.1.

Table 6.1  
*Summary of Objectives and Hypotheses*

Research Objective	Hypotheses
1. To examine the relationships among tax complexity, tax audit, tax rate, tax penalty, tax moral, tax fairness, peer influence, patriotism and sales tax compliance.	<p><b>H1:</b> There is a negative relationship between tax complexity and sales tax compliance.</p> <p><b>H2:</b> There is a positive relationship between tax audit and sales tax compliance.</p> <p><b>H3:</b> There is a negative relationship between tax rate and sales tax compliance.</p> <p><b>H4:</b> There is a positive relationship between tax penalty and sales tax compliance.</p> <p><b>H5:</b> There is a positive relationship between tax moral and sales tax compliance.</p> <p><b>H6:</b> There is a positive relationship between tax fairness and sales tax compliance.</p> <p><b>H7:</b> There is a positive relationship between peer influence and sales tax compliance.</p> <p><b>H8:</b> There is a positive relationship between patriotism and sales tax compliance.</p>
2. To examine whether public governance moderates the relationships among tax complexity, tax audit, tax rate, tax penalty, tax moral, tax fairness, peer influence, patriotism and sales tax compliance.	<p><b>H9:</b> Public governance moderates the relationship between the tax complexity and the sales tax compliance.</p> <p><b>H10:</b> Public governance moderates the relationship between the tax audit and the sales tax compliance.</p> <p><b>H11:</b> Public governance moderates the relationship between the tax rate and the sales tax compliance.</p> <p><b>H12:</b> Public governance moderates the relationship between the tax penalty and the sales tax compliance.</p> <p><b>H13:</b> Public governance moderates the relationship between the tax moral and the sales tax compliance.</p> <p><b>H14:</b> Public governance moderates the relationship between the tax fairness and the sales tax compliance.</p> <p><b>H15:</b> Public governance moderates the relationship between the peer influence and the sales tax compliance.</p> <p><b>H16:</b> Public governance moderates the relationship between the patriotism and the sales tax compliance.</p>

Note: The arrangement of the hypotheses was done in accordance with the research objectives.

Concerning the direct relationship between the independent variables and the dependent variable, the results of this study indicate that of the 8 hypotheses, 6 were supported. The finding of the PLS path model illustrated that tax audit, tax penalty, tax moral, tax fairness and patriotism are positively associated with sales tax compliance and a negative effect of tax complexity on sales tax compliance respectively. In contrast, peer influence and tax rate were found not to be related to the sales tax compliance.

Regarding the moderating effect of public governance on the associations between the independent variables and the dependent variable, the study found that of the 8 hypotheses, 3 were supported, indicating some associations were moderated by the public governance, while public governance did not moderate some associations. In particular, public governance was found to moderate the relationships between tax audit, tax penalty and peer influence with sales tax compliance. On the other hand, public governance does not moderate the associations between tax complexity, tax rate, tax moral, tax fairness and patriotism with sales tax compliance.

### **6.3 Discussion**

This section deliberates the study results in the light of theories and earlier research findings. The next subheadings of discussion section are structured based on the research questions set out earlier to discuss the results relative to achieving the objectives of this study.

### **6.3.1 First Research Objective**

The first research objective was to examine the relationships between tax complexity, tax audit, tax, tax rate, tax penalty, tax moral, tax fairness, peer influence and patriotism with sales tax compliance by extending Fischer's tax compliance model. The following sub-section explains this objective in detail in line with the hypotheses of the current study.

#### **6.3.1.1 Tax Complexity and Sales Tax Compliance**

Tax complexity is one of the main significant determinants of tax compliance (Richardson & Sawyer, 2001; Fischer, 1993; Jackson & Million, 1986). Therefore, the present study hypothesised that a significant negative association would exist between tax complexity and sales tax compliance (H1). The result indicated a significant negative association between tax complexity and sales tax compliance. Thus, this result points out that, when the owner-managers of SMEs facing more complexity in sales tax law, they are less likely to pay attention to sales tax compliance, thereby; the result is not surprising.

The result is consistent with the prediction of Fischer's model, which suggests that, to increase the sales tax compliance, tax system must be simple and understandable. This result in the line with the findings of some past works that indicates that tax complexity is negatively associated with sales tax compliance of SMEs (Woodward & Tan, 2015; Faridy et al., 2014). Generally, this result is also in line with former studies on tax behaviour that focus on the relationship between tax complexity and

income tax compliance (e.g., Mansour, 2015; Muche, 2014; Oyewole et al., 2014; Brainyyah, 2013; McClellan, 2013; Feld & Schneider, 2011; Kirchler et al., 2008; Warren & McManus, 2007; Abrie & Doussy, 2006; Cuccia & Carnes, 2001; Jackson & Milliron, 1986). Feelings of uncertainty, complicated tax returns, and requirements for legal completeness, difficult computations, frequent changes in the law, and difficulty in maintaining records and documents are some of the tax complexities experienced by many taxpayers that subsequently deter them from complying (Isa, 2014; Long & Swingen, 1987; Vogel, 1974).

Complexity of the sales tax law is also considered a key reason for non-compliance by most SMEs (Faridy et al., 2014). Tax complexity can lead to a decrease in tax compliance as a taxpayer seeks to gamble more, and this impact can be exacerbated if taxpayers become frustrated and react to tax complexity by intentionally non-complying (Alm et al., 2010; Kirchler et al., 2008). Complexity of the sales tax law impacts SMEs more than large taxpayers, and complexity increases the costs of complying with tax laws and thereby may decrease sales tax compliance (Faridy et al., 2014). However, in the case of Jordan, the complexity of the tax system and a lack of stability due to frequent amendments to the tax laws makes it difficult for taxpayers to understand the legal provisions of taxation and adhere to them; these are some of the main reasons behind tax non-compliance in Jordan (Nsour, 2014). Therefore, the conclusion can be made that tax complexity contributes towards reducing sales tax compliance, and tax complexity is considered one of the most serious issues facing SMEs owner-managers in Jordan.

### **6.3.1.2 Tax Audit and Sales Tax Compliance**

Tax audit is known to be an important deterrent from tax non-compliance (Park & Hyun, 2003). The main aim of tax audits is to discover tax non-compliance i.e., non-payment of tax or non-submission of tax returns by taxpayers (Ling, 2008). Thus, the current study hypothesised that a significant positive association would exist between tax audit and sales tax compliance (H2). Consequently, this research tested the role of tax audit among Jordanian SMEs. The finding indicates that tax audit is significantly and positively influences the decisions of SMEs to pay sales tax. In other words, more tax audit results in a stronger tendency for sales tax compliance. The result is consistent with the prediction of deterrence theory, which suggests that, to increase the sales tax compliance, strong tax audit is needed (Allingham & Sandom, 1972).

Owner-managers are believed to have rational behaviour, and they are supposed to maximize the expected utility of the tax non-compliance gamble, weighing the benefits from successful tax non-compliance against the risk of tax audit and penalty. In addition, SMEs may pay taxes out of fear of being detected and being punished when they evade tax. This result concurs with the findings in earlier literature, which reported that tax audit plays important roles in increasing sales tax compliance of SMEs (Woodward & Tan, 2015). Past research has received scant attention on the association between tax audit and sales tax compliance. In general, this result is also in accordance with previous studies related to tax audit and income tax compliance as a tax behaviour (e.g., Inasius, 2015; Modugu, 2014; Feld & Larsen, 2012; Abdul-

Jabbar, 2009; Alm & McKee, 2006; Pommerehne & Weck-Hannemann 1996; Spicer & Hero, 1985; Witte & Woodbury, 1985).

This finding further indicates that tax audit stands to be an important aspect of tax system enforcement mechanisms in Jordan. Even though Al-Zoubi et al. (2013) and Al-Maharma (2003) described the audit system as weak and tax auditors as having no experience for the treatment of tax evasion, the taxpayers perceived that the tax audit had the ability to affect their tax compliance decision. However, some literature has shown that a high perception of tax audit may also play a role in inducing tax compliance in Jordan (Alasfour et al., 2016; Haddad, 2006). Similarly, this present study highlights the importance of tax audit in increasing sales tax compliance of SMEs in Jordan, through monitoring and inspections where SMEs pay the correct amount of sales tax, ensure that they registered to pay sales tax. Hence, tax audit has an essential role in ensuring the integrity of tax invoices and registration for the sales tax amongst Jordanian SMEs.

### **6.3.1.3 Tax Rate and Sales Tax Compliance**

This study was also intended to determine the effect of tax rate on sales tax compliance. A tax rate is one key determinant of tax compliance (Chau & Leung, 2009; Richardson, 2006a). Thus, the present study hypothesised that the association between tax rate and sales tax compliance would be significant negative (H3). The current empirical result does not support the presumed influence of the tax rate on sales tax compliance.

The current study finding does not confirm the prediction of deterrence theory (Allingham & Sandmo, 1972) that the tax rate influences tax compliance. In the context of sales tax compliance, the relationship between tax rate and sales tax compliance has received very little attention, which reported a significant association between tax rate and sales tax compliance (e.g., Giesecke & Tran, 2012; Matthews, 2003; Engel et al., 2001; Agha & Haughton, 1996), but the current study found opposite result. The likely reason for this could be that most past literature above used analysis of official data from tax authority, but the current study relies on behavioural perception of SMEs owner-managers with regards to credit sales upon issuance of tax invoice.

In the context of income tax, the majority of the studies have found that the relationship between income tax compliance and tax rate was significant (e.g., Inasius, 2015; Hauptman et al., 2014; Mukhlis et al., 2014; Kuehn, 2014; Pellizzari & Rizzi, 2014; Seren & Panades, 2013; Bărbuță-Mișu, 2011), but there is some earlier studies which found an insignificant relationship between tax rate and income tax compliance (Sapiei & Kasipillai, 2013; Modugu et al., 2012; Kim, 2008; Nur-Tegin, 2008; Richardson, 2006a; Hanlon et al. 2005; Park & Hyun, 2003; Kamdar, 1997; Porcano, 1988; Baldry, 1987). Also, other researches have shown that tax rates have a debatable impact on tax evasion, that is, decreasing tax rates do not necessarily lead to a decrease in tax evasion (Kirchler et al., 2008) and increasing tax rates will not necessarily decrease compliance behaviours (Allingham & Sandmo, 1972). Therefore, as part of the first objective of this research, this finding provides

evidence that tax rate is an insignificant determinant of SMEs sales tax compliance in Jordan.

#### **6.3.1.4 Tax Penalty and Sales Tax Compliance**

The current study was also designed to examine the impact of the tax penalty on sales tax compliance among Jordanian SMEs. The tax penalty is one of the crucial factors of a tax system structure that affects tax compliance (Devos, 2013; Chau & Leung, 2009). The threat of penalties has been considered as a main tool to improve tax compliance (Mohdali et al., 2014). Accordingly, the current study hypothesised that association between tax audit and sales tax compliance would be positive and significant (H4). Therefore, the present research examined the effect of tax penalty among SMEs in Jordan. The result provides evidence that tax penalty significantly and positively effects the decisions of SMEs to pay sales tax. Thus, the outcome provides indications that tax penalty plays a substantial function in influencing the decision of SME in comply to pay sales tax in the Jordanian context.

This finding has supported the prediction of deterrence theory (Allingham & Sandom, 1972) that tax penalty increases tax compliance. This result is in line with earlier studies of sales tax compliance that found a significant positive association between tax penalty and sales tax compliance of SMEs (Woodward & Tan, 2015; Webley et al., 2004; Adams & Webley, 2001). In this case, the relationship between tax penalty and sales tax compliance research is still scarce. Furthermore, the finding is in conformity with some past studies associated tax penalty and income tax

compliance as a tax behaviour. Several found a significant positive relationship between tax audit and income tax compliance (e.g., Ng & Muturi, 2015; Engida & Baisa, 2014; Yoon, Yoo, & Kim, 2011; Arcand & Graziosi, 2005; Snow & Warren, 2005; Park & Hyun, 2003; Ali et al., 2001; Kaplan et al., 1997; Witte & Woodbury, 1985).

This result indicates that tax penalty plays an important role in promoting sales tax compliance and should be one of the main aspects of tax system enforcement techniques in Jordan. The major objective behind recently amending the tax law is to primarily address tax evasion and improve tax compliance. The penalty for tax non-compliance under the new amendments of tax law would be imprisonment that a fine cannot replace (Omari, 2017). The tax compliance decisions are likewise positively affected by the tax increase of subsequent tax penalty rates in Jordan (Alasfour et al., 2016). One possible explanation for the positive result in this current study is that owner-managers of SMEs have rational behaviour. owners-managers are supposed to maximize the expected utility of the tax non-compliance gamble, weighing the benefits from successful tax non-compliance against the penalty and thus, SMEs may pay taxes out of fear of being punished when they evade sales tax. Therefore, the conclusion that can be made is that tax penalty plays an important role in promoting sales tax compliance of Jordanian SMEs.

### **6.3.1.5 Tax Moral and Sales Tax Compliance**

Tax moral is one of the major factors influencing tax compliance (Jackson, Million, 1986). It is a moral commitment to pay tax and contribute to generating revenue for the nation to provides a welfare of the society (Torgler & Schneider, 2009; Torgler, 2003). Evidence points out that, at the aggregate level, states with great levels of tax morals have smaller informal economies (Halla 2012; Torgler & Schneider 2009), and taxpayers with a higher level of tax morals are more likely to comply with paying taxes (Blanthorne & Kaplan 2008; Wenzel 2005). Therefore, it is important to analyse the role of tax moral in the tax compliance context (Vythelingum et al., 2017). Hence, hypothesis five (H5) shows that association between tax moral and sales tax compliance was positive and significant. The result indicates that tax moral has a significant positive influence on sales tax compliance. In other words, the higher ethics of owner-managers ensures a strong tendency towards sales tax compliance.

The finding is consistent with socio-psychological approach predictions (Kohlberg, 1969). Past literature supports these findings, and several researchers have found out a significant positive relationship between tax moral and sales tax compliance of SMEs (Woodward & Tan, 2015; Webley et al., 2004; Adams & Webley, 2001). Nonetheless, previous studies on this specific area remain rare. In general, this result is also in accordance with previous studies related to tax moral and income tax compliance as a tax behaviour (e.g., Lisi, 2015; Loureiro, 2014; Nabaweesi, 2013;

Torgler et al., 2010; Torgler et al., 2007; Cummings et al., 2009; Riahi-Belkaoui, 2004; Witte & Woodbury, 1985).

The result in the current study also indicates that the effect of tax morals on sales tax compliance depends mainly on the moral principles or values that individuals hold about paying taxes (Torgler & Murphy, 2004). Even though tax non-compliance is ethically acceptable in Jordan under some circumstances, and indeed, based on cultural differences (Alasfour et al., 2016). However, Tax compliance has a positive relationship with tax moral principles in Jordan (AL-Shawawreh & AL-Smirat, 2016; Al-Zou'bi, 2010) Therefore, adequate tax moral for SMEs owner-managers may significantly and positively influence the sales tax compliance decision. The owner-managers is considered the primary decision maker for a SMEs, and his/her ethics determines the level of sales tax compliance. Therefore, tax moral clearly plays a key role in promoting sales tax compliance.

### **6.3.1.6 Tax Fairness and Sales Tax Compliance**

Tax fairness is one of main determinants of tax compliance. Azmi and Perumal (2008) and Jackson and Milliron (1986) stated that it is commonly accepted that perceptions of tax fairness and tax compliance are linked. Public perception that the taxation system is fair and equitable is important if the success of that system relies on a significant degree of voluntary tax compliance (Gilligan & Richardson, 2005). Tax fairness is significantly associated with a perception of an improved tax system and tax fairness and tax non-compliance are negatively related (Hite & Roberts,

1992). Thus, the current study hypothesised that tax fairness would have a significant positive association with sales tax compliance (H6).

The results of the current study indicated that tax fairness had a significant positive association with sales tax compliance; thus, this supported H6. This finding is in alignment with the socio-psychological approach (Adams, 1965), which posits that the fairness of tax system affects a taxpayer's behaviour positively. This result is also consistent with the extant literature that supports a significant positive relationship between tax fairness and sales tax compliance of SMEs (Woodward & Tan, 2015; Webley et al., 2004; Adams & Webley, 2001). However, the relationship between tax fairness and sales tax compliance research is still scarce. Therefore, finding is supported by some past studies that associated tax penalty and income tax compliance as a tax behaviour and found a significant positive relationship between tax fairness and income tax compliance (e.g., Fochmann & Kroll, 2015; Maseko, 2014; Muche, 2014; Samuel & Dieu, 2014; McKerchar et al., 2013; Ross & McGee, 2012; Ajaz & Ahmad; 2010; Kirchler & Wahl, 2010; Cummings et al., 2009; Mikesell & Birskyte, 2007; Feld & Frey, 2007; Mikesell & Birskyte, 2007; Berkeley, 2006; Ulbig, 2002; Bryan, 2000; Chan et al., 2000; Alm et al., 1992; Alm, 1991).

Etzioni (1986) argues that an unjust taxation system will probably lead to tax non-compliance more than an increased tax rate, indicating that taxpayers do not comply with paying taxes when they believe the taxes to be unjust, even when the tax rate is not high. Alasfour et al (2016) found that improving perceptions on equity and fairness in the Jordanian tax system would increase tax compliance. Therefore, as

part of the first objective of this research, this finding provides evidence that tax fairness is a positive determinant of SMEs sales tax compliance in Jordan.

### **6.3.1.7 Peer Influence and Sales Tax Compliance**

The present study was also designed to test the significance of peer influence on owner-managers' decisions to pay their sales tax. Peer influence is a portion of the attitudes and perceptions in the Fischer's model. The term peers are defined generally as the associates of a taxpayer who rationally comprise relatives, friends, co-workers and colleagues (Jackson & Milliron, 1986). Chau and Leung (2009) stated that peer influences are reflected in taxpayer's anticipations in relationship to the disapproval or approval of tax non-compliance, while Alm and McKee (1998) declared that peer influence is a major determinant of tax compliance. Peers could influence managers who are making tax decisions for business (Hasan, Hoi, Wu & Zhang, 2017). Consequently, the current study hypothesised that a significant positive association would exist between peer influence and sales tax compliance (H7).

Contrary to the expectations of this study, peer influence did not have any significant effect on sales tax compliance among Jordanian SMEs, and, thus, the proposed hypothesis was not supported. Therefore, the current result is not in alignment with the socio-psychological approach (Bandura, 1969). The social learning explains that compliance occurs when a taxpayer accepts influence from another taxpayer (Kelman, 1961).

The result also does not align with most previous studies, which stated that an association existed between peer influence and sales tax compliance of SMEs (Woodward & Tan, 2015; Adams & Webley, 2001). Previous studies with similar results for this specific relationship are rare. In general, this result is also not in accordance with previous studies relating peer influence and income tax compliance as a tax behaviour (Bidin & Idris, 2007; Chan et al., 2000; Hite, 1988). Peer influence may be unable to increase the tax compliance behaviour of the general population (Chung & Trivedi, 2003). The influence of peers had an insignificant impact on the compliance behaviour of the taxpayers (Bornman, 2014).

Peer influence would have no influence on the level of tax compliance of those who did not identify with the group (Wenzel, 2004a). However, taxpayers are compliant even if they believe others are not compliant (Braithwaite, Reinhart, Mearns & Graham, 2001). Peer influence is complex because it includes compliance associated with social pressure (Venkatesh & Davis, 2000). One possible explanation for the insignificant result in this current study is that the effect of peer influence on sales tax compliance decision may be attributed to the fact that tax compliance is purely a personal decision (Sukono & Djamaruddin, 2018). Another possible explanation for this is that the tax behaviour of a peer may be a private act and true peer behaviour is unobservable and, therefore, difficult to mimic (Hite, 1989). This rationale in the line with Bobek et al. (2007) who indicated that tax compliance behaviour is not easily observable.

A third plausible explanation for the result could be explained by the characteristics of the Jordanian culture. Jordanians place great importance on individualism, self-confidence and self-autonomy; thus, they may not be impacted by their peers. To conclude, Jordanian SMEs in this survey considered peer influence as not having a direct effect on their decision for sales tax compliance, and, so, peer influence did not play an important role in promoting sales tax compliance among Jordanian SMEs.

### **6.3.1.8 Patriotism and Sales Tax Compliance**

This current study was also designed to determine the impact of patriotism on sales tax compliance among Jordanian SMEs. Patriotism requires love of country (Callan, 2006). Taxpayer's patriotism motivates them to pay taxes as required (Qari et al., 2012). A taxpayer's love of state and his/her wish for it to flourish are demonstrated by their tax payment performances (Kahne & Middaugh, 2006). Patriotic feelings sometimes play a substantial role in all aspects of life, but especially in tax compliance (Qari et al., 2012). Therefore, the present study predicted a significant positive association between patriotism and sales tax compliance (H8).

The finding provides evidence that patriotism plays a substantial role in sales tax compliance. Patriotism was found to have a significant positive association with sales tax compliance. Consistent with the prediction of socio-psychological approach (Tajfel, 1974), the results suggest that SMEs with higher degrees of patriotism tend to have greater level of sales tax compliance. To date, a review of literature revealed that no other study has been made on the relationship between patriotism and sales

tax compliance. Therefore, support for the results of the current study is built upon tax compliance literature that are suitable for sales tax context (e.g., MacGregor & Wilkinson, 2012; Qari et al., 2012; Konrad & Qari, 2012). They reported that high patriotism positively influences the tax compliance level.

Patriotic sentiments usually run strongest during times of war. Nonetheless, patriotism is unlikely to be important for the fiscal policy of governments only in times of war. Indeed, patriotic duty is likely to carry significant weight in times of peace as well (Qari et al., 2012). A direct impact of patriotism would provide evidence that the effect of patriotism is predominantly implicit and emotional, conforming with a definition of patriotism as an emotional affiliation to one's country (Schatz & Lavine, 2007). Moreover, tax payers have a warm glow from paying taxes, which is only one manifestation of a possibly close link between patriotism and taxation (Qari et al., 2012). A further potentially important link between patriotism and taxation takes into consideration fiscal competition between countries and taxpayer mobility (Qari et al., 2012). The result of this study confirms that a higher degree of patriotism is associated with improved sales tax compliance. The findings indicate that owner-managers of SMEs who are patriotic believe that paying taxes is a national duty. In short, SMEs in which owner-managers exhibit high patriotism have greater sales tax compliance. In contrast, if the level of patriotism is low, then high levels of tax evasion are present.

### **6.3.1.9 Summary of the First Objective**

Generally, the first objective, which aimed to test the associations between tax complexity, tax audit, tax rate, tax penalty, tax moral, tax fairness, peer influence and patriotism with sales tax compliance, has been achieved by extending Fischer's model. Under the first objectives, eight hypotheses were designed. Six hypotheses, comprising tax complexity, tax audit, tax penalty, tax moral; tax fairness and patriotism with sales tax compliance were supported. The findings follow the deterrence theory prediction concerning the influence of tax complexity, tax audit and tax penalty on tax compliance behaviour. Besides, the results also follow the socio-psychological theories prediction regarding the effect of tax moral, tax fairness and patriotism on tax compliance behavior.

The two remaining hypotheses regarding the association between tax rate and peer influence with sales tax compliance, were not supported. Thus, result is not in alignment with the deterrence theory concerning the effect of tax rate on tax compliance. Besides, the finding does not in accordance with the prediction of socio-psychological theory regarding the effect of peer influence on tax compliance. The next sub-section explicates the second objective.

### **6.3.2 Second Research Objective**

The second research objective of this study was to examine whether associations between the tax complexity, tax audit, tax rate, tax penalty, tax moral, tax fairness, peer influence and patriotism with sales tax compliance were moderated by public

governance in SMEs in Jordan by adapting and expanding Fischer's model. Public governance was postulated to play a substantial role on all specified associations. The next sub-section explains these relationships in detail in line with the hypotheses of the current study.

#### **6.3.2.1 The Moderating Effect of Public Governance on the Relationship between Tax Complexity and Sales Tax Compliance**

Public governance was postulated to play a substantial role in the specified association. Hypothesis (H9) stated that public governance would moderate the relationship between tax complexity and sales tax compliance. The result was not supported, indicating that the relationship between tax complexity and sales tax compliance was not moderated by public governance.

The implication of this result is that a decision on the sales tax compliance by tax complexity is not dictated by public governance. This suggests that the presence of public governance did not significantly moderate the influence of tax complexity and sales tax compliance. One reason for this finding could be because in reality the perception of public governance is shaped by the quality of educational services, obtaining information and a good tax system that is simple and easy to understand. Although the Jordanian educational system is of high quality, the system does not provide education geared specifically towards entrepreneurship or the advancement of SMEs and tax systems (YEA, 2011).

Another possible explanation for the lack of the moderating effect of public governance on the relationship between tax complexity and sales tax compliance might be because SMEs are not actually being motivated by the activities of the relevant government and tax authority targeted at benefiting the SMEs owner-managers. Therefore, service awareness does not serve as an avenue for enlightening the taxpayers and thereby increasing their compliance level; in essence, service orientation does not stimulate the taxpayers. The present finding is in line with Ayuba et al. (2016b) who found no significant indirect relationship between tax complexity and tax compliance in the context of SMEs. Although many owner-managers of SMEs complained that the complexity of tax system caused them to lose their tax money, they cannot easily link that complexity to their decisions for sales tax compliance. Hence, the result of the current study suggests that public governance is not significant in enhancing the association between tax complexity and sales tax compliance of SMEs.

### **6.3.2.2 The Moderating Effect of Public Governance on the Relationship between Tax Audit and Sales Tax Compliance**

Hypothesis (H10) investigated the association between tax audit and sales tax compliance as moderated by public governance. The finding supports the hypothesised interaction association between tax audit and sales tax compliance. Therefore, the result shows that the effect between tax audit and sales tax compliance was significantly and positively moderated by public governance.

Considering the current economic crisis, the current government of Jordan is seriously following up on tax evasion files and prosecuting tax evaders. There are trends to increase the number of tax auditors and tax assessors. Recently, the Jordanian government established a new independent department relating to anti-tax evasion. Its task will be to follow tax evaders and get non-payers to pay their dues. Thus, government is serious in fighting the illegal works and reducing the level of corruption through accountability and enhanced control and inspection. The earlier study of Kiow, Salleh, and Kassim (2017) support the finding that tax audit effects the decisions of taxpayer compliance only when there is support for the government. Therefore, this is an indication that the effects of public governance had further strengthened the influence of tax audit on sales tax compliance such that it recommends that, in the presence of public governance with an increase in tax audit owner-managers of SMEs in Jordan are likely to be more compliant. This result in the line with the direction and statistical significance expected, indicates that a remarkable number of SMEs owner-managers believe that public governance with tax audit will further increase the level of sales tax compliance.

### **6.3.2.3 The Moderating Effect of Public Governance on the Relationship between Tax Rate and Sales Tax Compliance**

Hypothesis (H11) posited that public governance would play a moderating role between tax rate and sales tax compliance. The result provides inadequate support on the moderation effect of public governance. The current study found that public

governance does not moderate the relationship between tax rate and sales tax compliance.

A possible explanation regarding this is that the study found information provided by the government confuses taxpayers, leading to the failure of a taxpayer to correctly interpret or understand the information provided by the government. This, in turn, leads to their making imperfect decisions (Hibbing & Theiss-Morse, 2002). Information provided by the government may also not be consistent with the truth. Kiow et al. (2017) argued that a greater degree of transparency could lead to less trust as it will be easier for taxpayers to control the government, and they might blame government for small or minor mistakes. Therefore, according to Hibbing and Theiss-Morse (2002), higher expectations may lead them to find greater disappointment with government performance. Syadullah and Wibowo (2015) revealed that government effectivity has no impact on the tax rate in the Asian countries. KIpkoech (2016) and Porcano (1988) also argued that the tax rate has no impact on tax compliance. The result in the line with Allingham and Sandmo (1972) who attempted to find an association between tax rates, tax penalty, tax audit and actual income and tax evasion. They concluded that taxpayers may select either to report less income or to report fully, regardless of tax rates; thus, the tax rate appeared to be insignificant in determining tax compliance.

Another reasonable rationale for this is that SMEs are only collecting sales tax from the customers as a surrogate for the tax authority. Thus, the results demonstrate that public governance awareness does not serve as a way of enlightening the SMEs

owner-managers for increasing their sales tax compliance level; in essence, public governance does not stimulate the SMEs. Palil et al. (2012) stated that changes of current government policy were insignificant with respect to tax compliance decisions. Enginda and Baisa (2014) found that the perception of government spending did not have a significant connection with tax compliance. Therefore, higher or lower levels of public governance have no effect on the relationship between tax rate and sales tax compliance among SMEs in Jordan.

#### **6.3.2.4 The Moderating Effect of Public Governance on the Relationship between Tax Penalty and Sales Tax Compliance**

Hypothesis (H12) postulated that public governance would play an important role on the association between tax penalty and sales tax compliance. In line with expectations, the present study found that public governance moderates the relationship between tax penalty and sales tax compliance.

Faridy et al. (2016) suggested that the perceived reduction of corruption by tax authority, politicians, and other government officials will lead to increase the effectiveness of tax penalties and thus, increase the level of compliance. Ihrig and Moe (2004) stated governments should increase the tax penalty on who are caught and, thus, government revenue will be increased by means of increased tax compliance.

An explanation for this could be derived from government procedures that warn that no complacency will exist in the cases of tax evasion, and government will submit a

new law imposing severe penalties for cases of tax evasion. Additionally, the government issued directives to protect the middle- and low-income segments of Jordanians that demonstrated its commitment. The government indicated the penalty for tax evasion would include a prison sentence that a fine cannot replace a prison sentence and that new amendments to the law aimed at improving the efficiency of tax collection would stiffen penalties for tax evasion (Omari, 2017). It is rare that the government's response comes in this manner, which threatened anyone who commits the crime of tax evasion with the most severe penalties. Therefore, higher levels of public governance have an impact on the association between tax penalty and sales tax compliance among SMEs in Jordan.

#### **6.3.2.5 The Moderating Effect of Public Governance on the Relationship between Tax Moral and Sales Tax Compliance**

Hypothesis (H13) stated that public governance would moderate the relationship between tax moral and sales tax compliance. The findings of this study did not indicate a statistically significant moderating role of public governance on the tax moral and sales tax compliance relationship. This suggests that the presence of public governance did not significantly moderate the influence of tax moral on sales tax compliance. This is an indication that, whatever the public governance from the point of view of the SMEs owner-managers, their ethics did not have an effect on their sales tax compliance.

These results agreed with similar observations by Bilgin (2014) and Tekeli (2011) who found that the importance of politics, confidence in tax system, confidence in

government, confidence in parliament, and confidence in the civil service appear to have a statistically insignificant effect on tax moral. Thus, these will not affect the level of tax compliance. Yee, Moorthy, Choo and Soon (2017) found that social exchange had no association with tax compliance, which indicates that taxpayers were not interested in the welfare and public goods that the government provided, and, therefore, social exchange does not impact a taxpayer's ethics and thereby does not affect a taxpayer's attitude towards tax compliance.

Feld and Larsen (2012) said that some taxpayers are willing to honestly declare their tax even if they do not receive a full public good equivalent for their tax payments. This aligns with Trivedi, Shehata and Mestelman (2005) who tested the relationship between ethics and behavioural intentions. The outcome suggested that tax moral has no impact on taxpayer's intentions to comply. Machogu (2015) declared that the quality of government did not support the culture of obligation among taxpayers.

Another possible reason for this lack of support from public governance to moderate the tax moral and sales tax compliance relationship may be because tax moral is considered an intrinsic motivation and, thus, may not be influenced by external factors or rewards from government. Steenbergen, McGraw, and Scholz (1992) pointed out that personal morals may affect tax compliance behaviour independent from the fiscal exchange between the government and the taxpayers. Besides, the Jordanian people do not participate in choosing the prime of government or members of government and have no authority to change a government. Only the king has this authority, and, thus, no strong relationship exists between the government and the

people. Therefore, this would not affect their values ethics and intrinsic motivations toward sales tax compliance. Additionally, SMEs owner-managers do not expect the government in Jordan to contribute towards society. As there are no alternatives to warranty the benefit received, the SMEs do not anticipate receiving any benefits from the government. Therefore, public governance has not affected the SMEs' attitude on their tax moral, which could indicate that social exchange does not have a significant relationship with tax morality.

#### **6.3.2.6 The Moderating Effect of Public Governance on the Relationship between Tax Fairness and Sales Tax Compliance**

The present study posited that public governance would moderate the relationship between tax fairness and sales tax compliance (H14). Unexpectedly, the empirical results provided inadequate support for the moderating role of public governance. That is, tax fairness has no effect on sales tax compliance in the presence of either good or bad public governance. This is an indication that, whatever public governance may be, the perception of SMEs owner-managers about tax fairness has no an impact on their sales tax compliance.

One possible explanation for the absence of support for the hypothesised relationships might be because trust between taxpayers and government does not exist, and it may not be realistic for owner-managers to believe that fairness by the government procedures would be likely to get better. This explanation has received considerable support from Faizal et al. (2017). They revealed that trust in government and tax authority has no impact on the association between tax fairness

and tax compliance. Ching (2013) found that the relationship between public governance quality and tax compliance is insignificant.

Another possible explanation for the lack of support for the hypothesised relationships pertains to the knowledge of owner-managers. Hasseldine and Kaplan (1991) indicated that knowledge about different types of sanctions have an insignificantly effect on taxpayers' beliefs about the fairness of the tax system. Adam and Steven (2002) suggested that simplifying the tax system may not be effective for increasing tax compliance because taxpayers do not necessarily consider a simple tax system to be fair. Razak and Adafula (2013) revealed that the level of governmental accountability and transparency did not significantly impact the formation of an attitude of taxpayers towards of tax system and, thus, would not impact on their tax compliance decisions. Thus, the lack of interacting effect of public governance might be because the SMEs owner-managers surveyed in this study were not actually motivated by the activities of the relevant tax authorities targeting their benefits. Therefore, Jordanian SMEs do not pay any attention to the benefits received from the state; consequently, the social exchange with government does not affect SMEs' attitudes towards tax fairness and thus, does not impact sales tax compliance.

#### **6.3.2.7 The Moderating Effect of Public Governance on the Relationship between Peer Influence and Sales Tax Compliance**

The present study assumed that public governance would moderate the relationship between peer influence and sales tax compliance (H15). The finding indicates that a high level of public governance would increase the positive influence of peer

influence on sales tax compliance. Thus, the effect of peer influence may have a significant positive impact if taxpayers who have a strong motivation to comply are surrounded by a positive referent group (Saad, 2010). Peers influence is indeed an important factor in compliance, and a government can influence those peers by its policies, then such policies represent another, potentially significant tool in government's ongoing battle with tax evaders (Alm et al., 1999). They also indicated that the peer influence of tax compliance affects taxpayers reporting decisions and that this peer can be affected by government institutions. In particular, we argue that voting on different aspects of the fiscal system is likely to change this peer influence in ways that are predictable and that have predictable effects on tax compliance.

It could be argued that Jordanian taxpayers feel ashamed when they underreport and get caught. Therefore, society censors behaviours through the reinforcement of social norms as shame and guilt (i.e., social costs) to combat tax non-compliance (Alasfour, 2017). Porcano and Price (1993) found that taxpayers were more likely to comply with social sanctions as a supplement to enforcement efforts, and this effect increased as the likelihood of being caught (tax audit rate) increased. Bobek et al (2013) argued that personal norms or the standards of individuals have a direct effect on tax compliance, while peer influence had only an indirect influence on tax compliance behaviour by means of a tax audit.

Jimenez and Iyer (2016) and Jimenez (2013) indicated that social norms only influenced compliance indirectly through internalization as personal norms. This is an important finding because it suggests that social norms do not simply influence

the compliance decisions of individuals, but they also change the way in which individuals feel about the importance of compliance. This suggests that tax compliance may be improved by changing social norms, but only if these changes are internalized as personal norms. Governments can change the perceptions of taxpayers about societal norms; however, they must ensure that individuals allow these new perceptions to influence their own personal morals and values. This is an indication that the effects of public governance further strengthened the influence of peer influence on SMEs sales tax compliance, and, as such, in the presence of public governance with an increase in peer influence of SMEs owner-managers are more likely to be compliant.

#### **6.3.2.8 The Moderating Effect of Public Governance on the Relationship between Patriotism and Sales Tax Compliance**

The last hypothesis (H16) was to examine whether the public governance would have a moderating role on the association between patriotism and sales tax compliance in Jordanian SMEs through Fischer's model. In this study, the result revealed no significant moderating effect of public governance on the association between patriotism and sales tax compliance. This shows, that whatever the public governance may be, the perception of SMEs about patriotism has no influence on their sales tax compliance.

A plausible explanation for this result is could be attributed to lower trust in government among SMEs in Jordan. This result is in the line with Gangl et al. (2016) who found that patriotism has no effect on tax compliance without trust in

government and cooperation with the state. This result is equally unsurprising for a country like Jordan in which more than two-thirds of citizens in Jordan do not trust government and favouritism, corruption, weak justice, nepotism and a low level of democracy are among the main obstacles that challenge the development of the country (Johnsson & Martini, 2012). Another possible explanation for the lack of support for these hypothesised relationship pertains to the notion of the misregulation of service providers in the country.

Another alternative explanation could be derived from the nature of public governance quality that needs a long period of time to be established. Chandarasorn (2012) argued that the perception of public governance was insignificant as taxpayers cannot notice the immediate correlation when they are making tax obligation decision. He indicated it was not an important factor of tax obligation behaviour for either future or past intentions. In addition, it may be unrealistic for SMEs owner-managers to believe that public governance will become better easily. Although many SMEs complain about poor public governance and that the government wastes their tax money, they cannot easily link these factors to their sales tax compliance decisions. Therefore, SMEs owner-managers do not have direct attention to the benefits received from the government; thereby, the social exchange with government does not affect the patriotism of SME owner-managers and thus, does not impact sales tax compliance.

### **6.3.2.9 Summary of Second Research Objective**

Overall, the second objective examined whether associations between tax complexity, tax audit, tax rate, tax penalty, tax moral, tax fairness, peer influence and patriotism with sales tax compliance are moderated by public governance using the extended Fischer's model of tax compliance. This objective has eight hypotheses: three hypotheses were supported, whilst the remaining five were not supported. The hypotheses that were supported indicate that public governance moderates the association between tax audit, tax penalty and peer influence with sales tax compliance. However, the remaining hypotheses that were not supported suggest that public governance does not moderate the association between tax complexity, tax rate, tax moral, tax fairness and patriotism with sales tax compliance.

## **6.4 Implications of Research**

The current study has given an account of the determinants affecting sales tax compliance among Jordanian SMEs, and the moderating effect of public governance on the specified relationships. The findings have several theoretical and practical implications in the area of sales tax compliance and SMEs. These implications are discussed below.

### **6.4.1 Theoretical Implications**

The current study makes several significant theoretical contributions to the literature on accounting and taxation. It contributes to the accounting literature in association with sales tax compliance and its determinants in developing countries such as

Jordan. As stated earlier, the literature review revealed that, despite a great deal of attention being focused on the tax compliance studies, very little has been related specifically to the sales tax context. Consequently, the current study enhances this knowledge by providing a comprehensive conceptual model grounded based on the Fisher model, which was built on the integration of both deterrence and socio-psychological theories (behavioural and economic).

The current study was designed to fill the gap in sales tax compliance literature. To the best knowledge of the researcher, very few studies have been carried out in the context of sales tax compliance, and these included studies of New Zealand, Bangladesh and the United Kingdom (Woodward & Tan, 2015; Faridy et al., 2014; Webley et al., 2004). The present study adds to the limited studies internationally from a sales tax compliance perspective. Meanwhile, no study has been conducted on sales tax compliance in the Arab countries and the Middle East, especially in Jordan. Consequently, the present study can be considered a first that was conducted in the context of sales tax compliance and its determinants in Arab countries and in the Middle East, particularly in Jordan.

The present study offers strong empirical evidence regarding the effect of the deterrence theory on sales tax compliance. Most past literature has concentrated on the relationship between the deterrence theory in the context of income tax compliance, whereas very little study has tested the association between the deterrence theory and sales tax compliance (e.g., Woodward & Tan, 2015; Faridy et al, 2014; Webley et al., 2004). Moreover, to the best knowledge of this researcher, no

study has examined deterrence theory and sales tax compliance in Middle Eastern and Arab countries, especially in Jordan. Thus, the current study reduced the gap in the past literature about this association. The results of this thesis show that sales tax compliance will be at higher levels when a strong tax audit and strict tax penalties are present, while sales tax compliance is negatively associated with increases in the complexity of the tax system.

The current study provided evidence with regard to the influence of the socio-psychological factors affecting sales tax compliance. Although several past studies on taxes have used socio-psychological determinants as an influential element affecting tax compliance, the majority of these studies has focused on income tax, and only very few studies have focused on sales tax compliance (Woodward & Tan, 2015; Faridy et al., 2014; Webley et al., 2004). In addition, most have been conducted in developed countries. To date, no other study has examined the socio-psychological factors affecting sales tax compliance in Middle Eastern and Arab countries, particularly in Jordan. The findings of this thesis provide evidence that high tax moral and tax fairness increase the level of sales tax compliance.

The current study is also the first study to provide strong empirical evidence regarding the effect of patriotism (social identity theory) on sales tax compliance. The literature on the connection between patriotism and taxes is very limited (MacGregor & Wilkinson, 2012). Even though the very few prior studies that focused on the link between patriotism and income tax compliance (Gangl et al., 2016; MacGregor & Wilkinson, 2012; Konrad & Qari, 2012), these were carried out

in developed countries. To the best knowledge of the researcher, no research to date has examined whether patriotism effects the level of sales tax compliance among SMEs, particularly in Middle Eastern and Arab countries, more especially in Jordan. Therefore, this thesis theoretically contributes to the knowledge by examining whether patriotism has an impact on the level of sales tax compliance. The findings of this thesis show that patriotism leads to an increase in the level of sales tax compliance.

Furthermore, this is the first study to examine the effect of public governance (social exchange theory) as a moderator on the relationships between sales tax compliance, tax audit, tax rate, tax penalty, tax moral, tax fairness peer influence and patriotism with sales tax compliance. It examined the moderating effect of public governance on the association between deterrence theory and socio-psychological theories with sales tax compliance through an extended Fisher model by integrating public governance as a moderator and patriotism as a new independent variable in the context of sales tax compliance among SMEs in Jordan. Past studies have used the Fisher model in the individual context as well as in the context of income tax, and the Fischer's model was used to cover the context of an individual whereas this study focuses on the business/organisation.

Chan et al. (2000) suggested Fischer's model as a viable conceptual framework for research on taxpayer compliance behaviour. The majority of studies that have focused on the tax compliance of SMEs were with respect to income, with only a very few studies focusing on SMEs compliance in tax sales. To the best knowledge

of the researcher, no study has examined public governance as a moderator on the relationship between sales tax compliance and its determinants, especially for the Fisher model in the context of sales tax compliance among Jordanian SMEs.

The findings partially confirm the contingency role of public governance. Thus, the role of public governance could have positive and negative influence on the deterrence factors and social factors. There are likely various scenarios regarding the role of public governance, where its impact was dependent on the nature of independent constructs. Thus, public governance has a positive impact on the increased effective of tax audit to increase the level of sales tax compliance. Public governance moderated positively the association between tax penalty and sales tax compliance. Additionally, it increases the effect of peer influence and increases the likelihood of SMEs to pay sales tax. This implies that public governance is an important variable that interacts with tax audit, tax penalty and peer influence with respect to sales tax compliance.

#### **6.4.2 Practical Implications**

The Jordanian government is mainly dependent on taxes for revenue, which are considered important financial tools for the Jordanian public budget. Besides, tax revenues are largely based on sales tax. SMEs are considered to be the main of contributors to sales tax non-compliance in Jordan. Thereby, the improved sales tax compliance of SMEs will help Jordanian government to reduce the government's budget deficit and to achieve fiscal sustainability in Jordan by 2025 by being self-

reliance and thus, strengthening the national economy and improving the national economic performance.

In addressing the gap in the literature concerning the determinants of sales tax compliance, most particularly by the owner-managers of SMEs and developing a research framework that examines the determinants of sales tax compliance in SMEs, a contribution was proposed and was empirically supported. The research framework was based on an empirical work that provides a comprehensive structure for understanding the determinants of sales tax compliance in the SMEs context. It comprised socio-psychological factors and economic factors drawn from the Fischer's model and the past literature in an empirical examination. Therefore, the current study improved the understanding of the determinants that effect sales tax compliance of SMEs.

The findings also provide numerous important implications to government agencies, tax authority, and the SMEs themselves. Tax complexity is one of the most important factors influencing sales tax compliance. Government and the tax authority should give high priority to this factor. SME owner-managers agreed that tax complexity and ambiguity in sales tax law negatively affect their decisions for sales tax compliance. It is rational to assume, that when SMEs perceive that tax system is complex, sales tax compliance will decrease. Therefore, owner-managers of SMEs who do not understand the sales tax laws, regulations and procedures simply cannot comply their tax obligations. Due to this, they need tax education and assistance programs to help them have a better understanding of their sales tax obligations and

entitlements. The government should work with its stakeholders, through a participatory approach, to come up with an appropriate taxation system. In addition, the sales tax law should be simplified and made understandable for SMEs.

Tax audit was also found to positively influence the sales tax compliance among Jordanian SMEs. As SMEs increase their sales tax compliance in line with strong tax audit, the tax authority should take in account increased operational inspections of SMEs along with improved tax auditor effectiveness and friendly remediation. In addition, the tax authority should train a team of tax auditors that go undercover to detect the unofficial SMEs that are non compliant with the sales tax law. By doing so, this will reveal a huge part of tax evaders. The tax penalty has a tends to promote greater tax compliance of SMEs owner-managers, and government and tax authority providers should not overlook this factor. The tax authority needs to impose more sufficient sanctions. SMEs that are determined to be sales tax non-compliant should be taken to court, pay a substantial penalty and pay the tax due with interest. Tax non-compliance penalties should be made very clear and be applied to all. Therefore, SMEs owner-managers will pay the sales taxes due.

Owner-managers of SMEs should also have moral values, especially as related to their commitment to paying their sales taxes. The results suggest that the tax morals of owner-managers have a positive effect on paying their sales taxes. Government needs to create a high-trust-based culture and formulate strategies that serve to create normative ethical values to enhance voluntary compliance by means of reinforcing perceptions of the transparency and accountability of the state. In dealing with the

tax fairness issue, tax fairness impacts the sales tax compliance when SMEs perceive that compliance with the sales tax is justifiable in light of the fairness of the sales tax system. To increase the sales tax compliance, this research suggests that the tax authority should make the threshold of registration fair and reduce sales tax compliance costs for businesses. The results of the study also imply the need for greater emphasis to be placed on the enforcement and practice of ethical behaviour on sales tax compliance. This can be done by the promotion of greater morals standards in homes, schools and workplaces. Incentive-based plans like recognition for moral practices can be implemented to reward and encourage moral behaviour which may lead to commitment to moral practices by others taxpayers.

Patriotism was also found to positively affect sales tax compliance among Jordanian SMEs. The result of the current study does in fact report a positive association between patriotism and sales tax compliance. Patriotism can be described as positive feelings of affective attachment to the country. Therefore, the government and tax authority should improve feelings of patriotism and use these feelings of patriotism as a promotional tool to increase sales tax compliance.

The current research findings also revealed that public governance is an important factor to consider in sales tax compliance. The study result provides a useful understanding of how the public governance structure serves as either a catalyst or a retardant for change. According to the current research findings, SMEs seem to be more likely to engage in higher compliance for paying sales tax due to tax audit effectiveness and tax penalty in the presence of the moderating effect of public

governance quality. From the perspective of a policy makers, government can play a more vital role by increasing the quality of public governance thereby enhancing the roles of tax audit and tax penalty in reducing sales tax non-compliance.

On the other hand, peer influence affect positively on sales compliance under moderating effect of public governance among SMEs, thus Jordan's government needs to enhance awareness in SMEs owner-managers regarding the perception of the importance of comply to pay sales tax due and the benefits of its paying. Those SMEs might need to be encouraged to be more responsive to sales tax compliance. Thus, one recommendation is to conduct and prepare a comprehensive campaign regarding the importance of sales tax compliance to the economy and the community.

The current study suggested that more efforts be made toward alerting the government and tax authority to improve, simplify and mentor sales tax compliance of SMEs. Unfortunately, the fact that the present study did not find support for the moderating effect of public governance has an important implication for the association between tax complexity, tax rate, tax moral, tax fairness and patriotism with sales tax compliance. The result implies that, when SMEs have moral values and patriotism and their perception is that the sales tax system is fair and simple their sales tax compliance will improve, regardless of the level of public governance. Thus, owner-managers in SMEs should maintain their ethics and patriotism, and sales tax system should be fair and without complexity.

## **6.5 Limitations and Future Research**

There is no study without limitations; the present study has limitations that should be considered when interpreting the results. Furthermore, these limitations also display opportunities for future research to consider. The current study model explained 38.4% of the total variance in sales tax compliance, which means that other variables could explain the variance in sales tax compliance. In other words, the remaining 61.6% of the variance in sales tax compliance could be explained by other latent variables. The difference in the variance between the current study and others could be due to the different culture factors and government policies. In addition, the current research is the first study utilizing Fischer's model in the context of sales tax at the SMEs level, particularly in the context of Arab countries and the Middle east. The empirical evidence of this nature is always subjected to further development and this study is not exception. Therefore, future study is needed to consider other possible variables that could impact sales tax compliance such as tax knowledge, government subsidy patriotism, religion, external audit, gender of tax auditor, political affiliation and tax service quality.

In addition, this study comprises the beginning of research in sales tax compliance in Arab countries and the Middle East, most specifically sales tax compliance in Jordanian context. Thus, this study can be utilized as a background theoretical framework for researchers. However, the research is confined to the limited geographical area where it was carried out. Consequently, future studies could extend the model of this study to other Arab countries and the Middle East.

Despite the different follow up efforts, the current study ended up with response rate of around 32%, which is typically considered to be a satisfactory response rate from the level of owner-managers in Jordan. The constraints in data collection occurred because of limited cooperation from the respondents. This was due to factors involving the sensitivity of the taxation theme and, a lack of time to complete the survey by potential respondents, or because a target respondent was disinterested in finishing the survey.

The survey method typically suffers from several shortcomings; some of which may include response bias and the social desirability of responding to satisfy an author, misinterpretation and misunderstanding of the respondents with respect to the questions asked or false response to questionnaire items. These are all problems common in social science surveys (Zikmund, 2003). To minimize these occurrences, the questions formulated followed an extensive assessment procedure including an expert review to ensure that the instrument was as understandable and clear as possible to the targeted respondents. Additionally, respondents were reassured of the anonymity of their responses and participation to elicit their objective and reliable opinions. Nevertheless, because the threat may not be fully eliminated and may likely have affected findings, future research may take into consideration combining a survey with other qualitative approaches such as case studies and interviews to provide in-depth insights and provide superior support regarding the findings. The mixed-methods approach could provide more evidence from different perspectives to overcome the limitations of a single approach.

## 6.6 Conclusion

The topic of sales tax<sup>4</sup> compliance in the Jordanian context is becoming more important, particularly considering the Jordanian government's agenda to move towards a strengthened national economy, fiscal sustainability and self-reliance. Thus, sales tax compliance is critical for the government. To achieve sales tax compliance, the government must consider the potential factors that might affect sales tax compliance. The current study has provided additional evidence to the growing body of knowledge concerning the sales tax compliance and its determinants of SMEs in Jordanian, where sales tax compliance remains at a low level. The current study improved and enhanced the understandings of the factors influencing sales tax compliance among SMEs.

Additionally, the present study investigates the moderating effect of public governance on the relationship between tax complexity, tax audit, tax rate, tax penalty, tax moral, tax fairness, peer influence and patriotism with sale tax compliance. The analysis of surveyed data shows significant and positive influence of tax audit, tax penalty, tax moral, tax fairness and patriotism on sales tax compliance and a significant and negative effect of tax complexity on sales tax compliance. Moreover, the moderating effect of public governance was found to be significant and positive on tax audit, tax penalty and peer influence on sales tax compliance respectively. Finally, the hope is that the present study will motivate more theory development and additional studies in this area of research.

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<sup>4</sup> As mention earlier, it is significant to note that sales tax in the context of Jordan indicates VAT or GST globally. Therefore, attention should be made when pointing out to sales tax context in other countries. See also footnote 1 and footnote 2.

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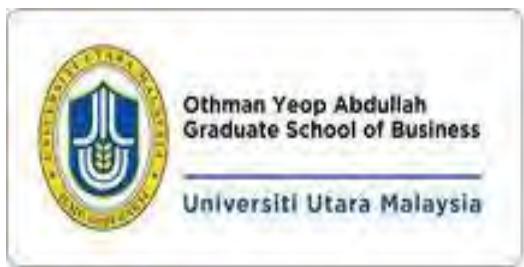
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## Appendix A

### The Questionnaire in English



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Dear Manager,

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

#### **SALES TAX COMPLIANCE AMONG JORDANIAN SMEs**

In Jordan, the economy is largely dependent on tax revenue, which is a crucial item in the Jordanian public budget; the main source of tax revenue is sales tax. In line with that, the government, through various initiatives, is strongly motivated to increase in tax revenue through encouraging tax compliance behaviour. Thus, it is important to recognize factors affecting sales tax compliance, particularly in the context of SMEs that have strategic significance in the national economy.

The main aim of this study is to discover determinants of sales tax compliance among Jordanian SMEs. We really appreciate your cooperation in making this research a success. The surveys take **10 minutes**. Please spare some of your valuable time to complete it. Please be assured that your responses will be analysed for academic purpose. Hence, respondent's identity will never be known throughout any part of the research process. If you have any questions about the questionnaire, or would you like to see the final results, feel free to contact the researcher.

Thank you for participating in this study. Your cooperation is highly appreciated

Researcher,  
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Supervisors: Assoc. Prof. Hijattullah Abdul-Jabbar  
Dr. Rose Shamsiah Bt Samsudin

**Section 1 Tax Rate:** Please state the extent to which you agree with each of the following statements by circling the appropriate number/answer.

Tax Rate		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	A fair sales tax rate should be the same for every type of business size.	1	2	3	4	5
2	A fair sales tax rate should be the same for every type of goods.	1	2	3	4	5
3	A fair sales tax rate should be the same for every type of sector.	1	2	3	4	5

**Section 2 Tax Audit:** Please state the extent to which you agree with each of the following statements by circling the appropriate number/answer.

Tax Audit		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Businesses pay the correct amount of sales tax when there are greater enforcement and monitoring.	1	2	3	4	5
2	The likelihood of audits encourages me to comply with the sales tax law.	1	2	3	4	5
3	Businesses registered for sales tax are often subject to tax authority audits and inspections.	1	2	3	4	5

**Section 3 Tax Penalty:** Please state the extent to which you agree with each of the following statements by circling the appropriate number/answer.

Tax Penalty		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Businesses that are discovered for tax non-compliance will be forced to pay the sales tax they owe with interest.	1	2	3	4	5
2	Businesses that are discovered for tax non-compliance will be forced to pay large penalty and pay the sales tax they owe with interest.	1	2	3	4	5
3	Businesses that are discovered for sales tax non-compliance will be taken to court and pay the sales tax they owe with interest.	1	2	3	4	5
4	Businesses that are discovered for sales tax non-compliance will be taken to court, pay a substantial penalty and pay the tax they owe with interest.	1	2	3	4	5

**Section 4 Tax Complexity:** Please state the extent to which you agree with each of the following statements by circling the appropriate number/answer.

Tax Complexity		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	There are ambiguities in the sales tax law which may lead to more than one defensible position.	1	2	3	4	5
2	Too many computations must be made.	1	2	3	4	5
3	There have been frequent changes in the sales tax law.	1	2	3	4	5
4	There are excessive details in the sales tax law, such as rules and exemption to the rules.	1	2	3	4	5
5	Detailed special records must be kept by the taxpayer to comply with sales tax law.	1	2	3	4	5
6	The format and instructions of the sales tax forms are confusing.	1	2	3	4	5

**Section 5 Tax Fairness:** Please state the extent to which you agree with each of the following statements by circling the appropriate number/answer.

Tax Fairness		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Sales tax applies to most goods and services, so people who consume more pay more sales tax.	1	2	3	4	5
2	The sales tax registration threshold is fair to your business.	1	2	3	4	5
3	Being sales tax registered does provide other benefits such as better recordkeeping.	1	2	3	4	5
4	Although an administration cost falls on the sales tax registered business it is not significant.	1	2	3	4	5
5	The tax penalties imposed are applied consistently by the tax authority.	1	2	3	4	5
6	Being sales tax registered doesn't affect the competitiveness of my business, having to add sales tax rate to my prices doesn't affect my business sales volume.	1	2	3	4	5

**Section 6 Peer Influence:** Please state the extent to which you agree with each of the following statements by circling the appropriate number/answer.

Peer Influence		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Most people who are important to me think that I should report all my sales tax return.	1	2	3	4	5
2	Most people who are important to me think it is unacceptable to overstate tax deductions on	1	2	3	4	5

	their sales return.					
3	Most people who are important to me think that the tax they pay is fair given the services they get from the government.	1	2	3	4	5
4	Most people who are important to me prefer to pay less tax even if it means receiving a more restricted range service.	1	2	3	4	5
5	Most people who are important to me think that sales tax non-compliance is a trivial offense.	1	2	3	4	5
6	Most people who are important to me think the government should actively discourage participation in the informal sector.	1	2	3	4	5

**Section 7 Patriotism:** Please state the extent to which you agree with each of the following statements by circling the appropriate number/answer.

Patriotism		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Businesses are more patriotic when they buy goods made in Jordan than goods made in other countries.	1	2	3	4	5
2	A business that pays more in sales taxes is more patriotic than a business that pays less in taxes.	1	2	3	4	5
3	A person who cheats on his/her sales taxes is not patriotic.	1	2	3	4	5
4	A business that hides its sales revenue in a foreign country to avoid sales taxes is not patriotic.	1	2	3	4	5
5	Businesses that cheat on sales taxes are not patriotic.	1	2	3	4	5
6	I would be willing to increase sales tax rate if it would help my country.	1	2	3	4	5

**Section 8 Tax Moral:** Please state the extent to which you agree with each of the following statements by circling the appropriate number/answer.

Tax Moral		Strong Disagree	Disagree	Neutral	Agree	Strongly Agree
1	The current sales tax burdens can never be justified by sales tax non-compliance.	1	2	3	4	5
2	The easy availability of opportunities to evade sales taxes can never justify sales tax non-compliance.	1	2	3	4	5

3	If in doubt about whether or not to report a certain sales turnover, I would report it.	1	2	3	4	5
4	The government's getting enough sales taxes can never justify some people's evasion of sales taxes.	1	2	3	4	5
5	Sales taxes are so heavy that sales tax non-compliance is not an economic necessity for many to survive.	1	2	3	4	5
6	If I receive JD 2000 in cash for sales and services rendered, I would report it.	1	2	3	4	5
7	Cheating on sales taxes can never be justified by the unfairness of the sales tax system.	1	2	3	4	5
8	Sales taxes are not taken away from customers.	1	2	3	4	5
9	Evasion of sales taxes by everybody can never justify one doing it.	1	2	3	4	5
10	There is something bad about under-reporting taxable sales on one's sales tax return.	1	2	3	4	5

**Section 9 Sales Tax Compliance:** Please state the extent to which you agree with each of the following statements by circling appropriate number/answer.

Sales Tax Compliance		Strong Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Most business owner-managers always correctly record the details of a sale on the sale tax invoice.	1	2	3	4	5
2	Most business owner-managers generally believe that it is unacceptable to alter a sales tax invoice to allow a customer to claim more sales tax.	1	2	3	4	5
3	There are no circumstances when it might be acceptable to alter the details on a tax invoice to allow another business owner-managers to claim more sales tax.	1	2	3	4	5
4	If the customer's requests a tax invoice to be altered so they can claim more sales tax, business owner-managers will not do it for them.	1	2	3	4	5
5	If business owner-managers altered a tax invoice to allow a customer to claim more sales tax, they would not feel good about it.	1	2	3	4	5
6	There are no circumstances when business owner-managers find it justifiable to ask another sales tax registered business to alter a	1	2	3	4	5

	tax invoice so that they can claim more sales tax.				
7	Most business owner-managers believe that it is unacceptable to alter a tax invoice to include private expenses as business expenses for sales tax purposes.	1	2	3	4
8	I think it is unacceptable to alter a tax invoice so that private expenses appear to be business-related in order for me to make a sales tax claim.	1	2	3	4
9	Some businesses owner-managers believe that its unacceptable to create fake invoices or alter invoices in order to claim sales tax refunds they are not entitled to.	1	2	3	4
10	I do not find faking invoice or altering an invoice justifying a sales tax refund.	1	2	3	4
11	If I created or in any way altered a tax invoice to get a claim for sales tax I was not entitled to, I would not feel good about it.	1	2	3	4

**Section 10 Public Governance:** Please state the extent to which you agree with each of the following statements by circling appropriate number/answer.

Public Governance		Strong Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I trust the Jordanian parliament in making good laws for Jordan.	1	2	3	4	5
2	I believe that there are a free and fair elections in Jordan.	1	2	3	4	5
3	I believe that there is no wastefulness in government expenditures in Jordan.	1	2	3	4	5
4	I have access to the published accounts and annual report of the government in Jordan.	1	2	3	4	5
5	I am satisfied with quality of the general infrastructure in Jordan.	1	2	3	4	5
6	I feel that Jordanian public servants are not vulnerable to political interference.	1	2	3	4	5
7	I am satisfied with the manner in which the government is handling the health service.	1	2	3	4	5

8	I am satisfied with the manner in which the government is handling the education system.	1	2	3	4	5
9	I trust the financial honesty of Jordanian politicians.	1	2	3	4	5
10	I believe that the diversion of public funds due to corruption is not common in Jordan.	1	2	3	4	5
11	I think that individual and firms, frequently, make extra payments in connection to tax payment, loan application, etc.	1	2	3	4	5
12	I believe that political situation is stable in Jordan.	1	2	3	4	5
13	I believe that political protests are not a threat to Jordanian stability.	1	2	3	4	5
14	I believe that there is no tribal conflict threat to stability in Jordan.	1	2	3	4	5
15	I feel that Jordanian Judiciary is free from interference of other agencies of government	1	2	3	4	5
16	I believe that justice is fairly administered in Jordan.	1	2	3	4	5
17	I believe that Jordanian police has effective power in combating crime.	1	2	3	4	5

Please place an (✓) in the block that relates to you.

**The period your business has been in operation is:**

Less than 5 years.....

5 – 10 years.....

More than 10 years.....

**Your current position in the business is:**

Chief executive officer.....

Managing director.....

Owner- manager.....

Other, please state

**The sales turnover of your business in financial year 2016 was:**

Less than JD 100,000.....

JD 1, 00,000– JD 5,000,000.....

More than JD5, 000,000.....

**Your educational qualifications are:**

Up to Secondary level .....,

Diploma.....

Degree.....

Postgraduate.....

**The number of staff employed by your business is:**

1- 9.....

10-49.....

50-249.....

**The main manufacturing activity of your business is:**

Therapeutics.....

Plastic, Rubber and Products.....

Chemicals.....

Engineering Industries.....

Furniture, kitchens and doors.....

Construction.....

Printing, paper and stationeries.....

Food & Supply.....

Garments.....

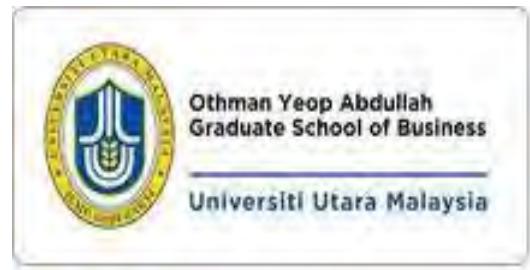
Mining.....

**A registration in sales tax**

Registered

Unregistered

## Appendix B



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ل علیکم ورحمة الله وبركاته

## عڑیزی لمبیر فیضل،

## ضریبه لیع انتفای لمن اریع لمن غیره ول توس طه ۱ رانیه

في الواقع، تعدد الصناعات الموردة للمملكة العربية السعودية في العام ١٩٩٠ وخصائصها  
الجغرافية، ومتغيرات مع الافتتاح الحكومي ومن لمحظى بالمملكة وفجأة انتشار وتحقيق وفدي في اداء  
عاليه التزام الصناعي بالمحافظة على مقومات الموارد المائية، وبالتالي فمن لم يتم انتشار وتحقيق وفدي درس للعوامل  
التي تؤثر على التزام الصناعي فنوع الصناعات في الموارد المائية، وبالتالي من طه التي يتمثل حسب  
اقتراحات اردني وبما يكتسبون هذه استقبله بعده عن التصور لخاص بك من حيث التزام الصناعي فنوع الصناعات  
الجغرافية، ولهدف لمحظى من هذه الدراسات هو دراسة لعوامل وملخصها حيث عزيز التزام الصناعي فنوع  
الصناعات في الموارد المائية وبالتالي من طه التي تمثل حسب اردني.

لذان جو هن اعنةكم وتعارفون که في لج از هذه لدريل ه وقتتم اجتیارکم رکه متنیون الشیح ه لمن ه فیی لبحث. و هذه استیبل ملنت اخذ لک من 10 قیاق من وقتکم لکهین. شک الکم هن ارکتکم و فیحکم وقتکم لکهین لتهیی هذا استیبل ه. ون وکدلک ان اجبلتکهیتم للتتعامل مع ملبسی تمام و ستخدام ا کاهی می. و مکلایی فانه لنتع ف هنیک یع ای جزء من علیی لبحث. و اذا کان لک ملپس ار حول لملکه استیبل ه اولیک ال بعه فی معرفه القیاق لک هی ملبحث نت فی انتصی البالی احث.

شک و شم نت عاونکم و قل و فی وقت حجه‌ثی،

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لقوس م 1 ول بل جائع اجل اجل بع ارق بع طي وضع م ) ٧( بعى ا جبل لفب اه.

1- مع دل ضرورة لبيع ات : مونس هض ب لبيع ا لفب وضع بعى معظم الضرر و لخدم لجمن ع ملبيا.

موفق بشدة	موفق	محيد	غير موفق	غير موفق بشدة	مع دل ضرورة لبيع ات
5	4	3	2	1	يجب أن يكون مع دل ضرورة لبيع ات مونس هلكل نوع من لـ اع الشركـات.
5	4	3	2	1	يجب أن يكون مع دل ضرورة لبيع ات مونس هلكل نوع من لـ اع لـ بـ رـ طـ اـ عـ وـ لـ خـ دـ اـ.
5	4	3	2	1	يجب أن يكون مع دل ضرورة لبيع ات مونس هلكل نوع من لـ اـ طـ اـ عـ اـ قـ تـ هـ اـ لـ مـ حـ بـ هـ.

2- لـ تـ قـ يـ لـ ضـ بـ يـ : هيـ حـ صـ لـ وـ تـ قـ لـ مـ لـ بـيـ ولـ قـ اـ يـ لـ ضـ بـ يـ تـ قـ يـ لـ ضـ بـ يـ وـ اـ خـ سـ اـ بـ يـ هـ بـ هـ لـ اـ خـ اـ خـ يـ تـ قـ يـ بـ يـ لـ مـ لـ بـيـ فـ عـ ضـ بـ يـ هـ لـ بـ يـ اـ عـ .

موفق بشدة	موفق	محيد	غير موفق	غير موفق بشدة	لـ تـ قـ يـ لـ ضـ بـ يـ
5	4	3	2	1	الـ شـ رـ كـ اـ تـ دـ تـ قـ زـ مـ بـ فـ عـ ضـ بـ يـ لـ بـ يـ اـ عـ دـ اـ يـ كـ وـ نـ . فـ اـ كـ فـ يـ دـ مـ نـ لـ رـ قـ بـ هـ وـ لـ فـ نـ هـ يـ شـ .
5	4	3	2	1	لـ تـ قـ يـ فـ يـ ضـ بـ يـ لـ بـ يـ اـ نـ يـ شـ جـ فـ لـ دـ عـ لـ لـ ضـ رـ طـ اـ بـ . بـ يـ اـ بـ هـ تـ الـ لـ قـ لـ وـ نـ ضـ بـ يـ هـ لـ بـ يـ اـ عـ .
5	4	3	2	1	الـ شـ رـ كـ اـ تـ دـ تـ قـ زـ مـ بـ فـ عـ ضـ بـ يـ لـ بـ يـ اـ عـ دـ اـ يـ كـ وـ نـ . لـ عـ لـ يـ اـ تـ قـ يـ فـ يـ وـ فـ نـ هـ يـ شـ صـ اـ رـ مـ مـ نـ قـ يـ لـ لـ طـ اـ تـ . لـ لـ ضـ بـ يـ يـ هـ .

3- لـ بـ يـ اـتـ لـ ضـ بـ يـ : هيـ مـ جـ مـ وـ عـ هـ مـ نـ لـ جـ زـ اـ اـ وـ لـ اـ لـ اـ عـ فـ عـ ضـ بـ يـ هـ لـ بـ يـ اـ عـ .

موفق بشدة	موفق	محيد	غير موفق	غير موفق بشدة	لـ بـ يـ اـتـ لـ ضـ بـ يـ
5	4	3	2	1	الـ شـ رـ كـ اـ تـ دـ تـ قـ زـ مـ بـ فـ عـ ضـ بـ يـ لـ بـ يـ اـ عـ دـ اـ يـ كـ وـ نـ .
5	4	3	2	1	الـ شـ رـ كـ اـ تـ دـ تـ قـ زـ مـ بـ فـ عـ ضـ بـ يـ لـ بـ يـ اـ نـ يـ شـ عـ قـ يـ مـ هـ لـ لـ ضـ بـ يـ هـ مـ عـ قـ لـ اـ دـ اـ دـ . وـ تـ عـ رـ عـ لـ بـ يـ اـتـ صـ اـ رـ مـ هـ مـ نـ قـ يـ لـ لـ طـ اـ تـ . لـ لـ ضـ بـ يـ هـ .
5	4	3	2	1	الـ شـ رـ كـ اـ تـ دـ تـ قـ زـ مـ بـ فـ عـ ضـ بـ يـ لـ بـ يـ اـ نـ يـ شـ عـ قـ يـ مـ هـ لـ لـ ضـ بـ يـ هـ مـ عـ قـ لـ اـ دـ اـ دـ . قـ يـ مـ هـ لـ لـ ضـ بـ يـ هـ مـ عـ قـ لـ اـ دـ اـ دـ .
5	4	3	2	1	الـ شـ رـ كـ اـ تـ دـ تـ قـ زـ مـ بـ فـ عـ ضـ بـ يـ لـ بـ يـ اـ نـ يـ شـ عـ قـ يـ مـ هـ لـ لـ ضـ بـ يـ هـ مـ عـ قـ لـ اـ دـ اـ دـ . لـ بـ يـ اـتـ صـ اـ رـ مـ هـ مـ نـ قـ يـ لـ لـ طـ اـ تـ . لـ بـ يـ اـتـ صـ اـ رـ مـ هـ وـ تـ عـ قـ يـ مـ هـ لـ لـ ضـ بـ يـ هـ مـ عـ قـ لـ اـ دـ اـ دـ .

4- **تغليق دون ضبيه لبيعات:** وهو الصعوب في فم ومحفظة وليون ضبيه لبيعات ، وللتقويم فم فلحيي لضبيه لبيعات

موقف بشدة	موقف	محيد	غير موقف	غير موقف بشدة	تغليق دون ضبيه لبيعات
5	4	3	2	1	فاك غ موضفي قلدون ضبيه لبيعات مم ايؤدي لإي سوف هم.
5	4	3	2	1	فاك العديد من لاعبيات لمحبيه لمعقد للبيج جب اجريه اعن دفع لضبيه.
5	4	3	2	1	فاك العديد من لاعبات لام خ فبي قلدون ضبيه لبيعات.
5	4	3	2	1	فاك العديد من لاعبي لفم طفي قلدون ضبيه لبيعات.
5	4	3	2	1	يجب أن يحظى فلعم الضرب ببس ت خصه فهمصله.
5	4	3	2	1	الشكل ولتربيه لن ماذج ضبيه لبيعات تعيبر مركة.

5- **العدل لضبيه:** وهي انصاف وعدم لتجزفي لتعامل مع اللهيون لفمعض ضبيه لبيعات

موقف بشدة	موقف	محيد	غير موقف	غير موقف بشدة	العدل لضبيه
5	4	3	2	1	تطبق ضبيه لبيعات غبي مع معظم لسلع ولخدمات، لذفإن اشخاص لفين يبيت لفون لنهي د من لسلع ولخدمات يفعون ضبيه لبيعات أكبر.
5	4	3	2	1	حد لتسجي لضبيه لبيعات يعبر عادل لشاطئ الصناعي.
5	4	3	2	1	لتسجي لفني ضبيه لبيعات تغير لعديد من قوئي د نجل يحظى لس ت لام جلبيه.
5	4	3	2	1	تعبر لتفايف ايء لبيج تقع غبي لشركات الصناعي دل من لج لضبيه لبيعات غير مهه.
5	4	3	2	1	لعيونات لضبيه لفم روض قطب عدله.
5	4	3	2	1	لتسجي لفني ضبيه لبيعات يوثر غبي لقدر لتفاسيل لش رفقي، حيث ان لفريدة ضبيه لبيعات أكفي اده غبي لس عر يوثر غبي حجم لبيعات.

6- **تنمير اق ران:** وهي وجه من ظلامي وتقى عده من تنمير اشخاص لام هين لفيف فمعض ضبيه لبيعات

موقف بشدة	موقف	محيد	غير موقف	غير موقف بشدة	تنمير اق ران
5	4	3	2	1	اشخاص الام هين بلنبيه لبيج دون لـ هيفي غبي أن اغون بصرحة عن كاميل بيراد لبيعات.
5	4	3	2	1	اشخاص لام هين بلنبيه لبيج دون لـ من

					لقوں لیملاعہ فی لخیوصمات لصیفیہ نہی ٹریاد نہی عٹ مم.	
5	4	3	2	1	ا شخاص لام ہمین بلانٹ ٹیپنچ دون ان لص رطیب لکھیو فیفعون ہا عالی قن ظراللخ دمات لمق دم مم.	3
5	4	3	2	1	ا شخاص لام ہمین بلانٹ ٹلی فیضنون ان یففعو رضیفہ نہیعات قل بخیل و ادی لکی قلیل لخدمات لمق دم ہ.	4
5	4	3	2	1	ا شخاص لام ہمین بلانٹ ٹلی یہیرون ان عدم النزاہی فی عرض ریفہ لنهیعات جرم مقلہ ہ.	5
5	4	3	2	1	ا شخاص لام ہمین بلانٹ ٹلی یہیق دون لہ یج ب نہی لکھو مہ ان تقو مباعمال تشجع فلعي لص رطیب نہی لاعمل فی لق طاع غیر رس می.	6

## 7-لـوطـنـه : و هـيـ حـبـ لـلـوـطـنـ وـاـ

8- ا خ ق لض وعي ه: هي لدفوع لذئب لف عض يه لبيع ا لنهيج عن التزام ا خ ق ليف ع لض طيئب

١- ق لصريبيه					
موفق بشدّة	موفق	محبّد	غير موفق	غير موفق بشدّة	
5	4	3	2	1	نظر الهمّل غضبيه للبيعات للحليه، يمكن للمرء أن يلقي يبالو مفعه للبيعات من فعه. 1
5	4	3	2	1	نظر السهليه تغير لفرض للمرء من ضبيه للبيعات ي يمكن للمرء أن يلقي يبالو مفعه للبيعات من فعه. 2
5	4	3	2	1	إذا راودك شك حول قيم امكبا غ او عدمه عن البيعات معنون فللن يسأله با غ عه. 3
5	4	3	2	1	بما أن لحكومة تحصل على ضبيه للبيعات لفهي، يرر للمرء من فع ضبيه للبيعات. 4

5	4	3	2	1	بلرغم من ان ضيـة لـلـبيـع اـنتـقـيـة اـنـ لـهـ مـرـبـ منـ فـعـهـ يـعـبـرـ ضـرـورـةـ فـصـاـبـهـ لـلـلـثـيـرـ مـنـ لـلـشـرـكـ اـتـلـلـقـ اـفـيـ لـلـسـوـقـ.	5
5	4	3	2	1	إذـلـقـيـتـ بـلـغـ 2000ـ بـيـنـ اـرـبـيـنـ قـدـلـيـعـ اـتـتـ	6
5	4	3	2	1	لـهـ مـرـبـ منـ فـعـهـ ضـيـةـ لـلـبيـعـ اـتـتـ مـاـيـرـرـهـ بـيـضـوـءـ عـدـمـ عـدـلـقـلـوـنـ ضـيـةـ لـلـبيـعـ اـتـ.	7
5	4	3	2	1	ضـيـةـ لـلـبيـعـ اـتـ مـنـ اـشـيـاءـ لـهـ تـؤـخـذـ عـوـتـاـ.	8
5	4	3	2	1	بـمـاـ انـ غـلـيـةـ لـلـشـرـكـاتـ بـتـتـ مـرـبـ منـ فـعـهـ لـلـبيـعـ اـتـفـاـهـ مـيـرـرـ لـهـ اـبـلـهـ مـرـبـ.	9
5	4	3	2	1	تـعـبـرـ فـاـكـ شـيـلـهـ اـخـقـيـهـ بـشـأـنـ عـدـمـ بـغـ عـنـ لـلـبيـعـ اـتـ لـلـخـسـعـ عـلـ ضـيـةـ.	10

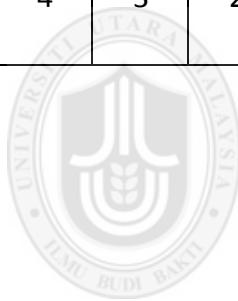
**9- لـتـزـاهـيـيـ ضـيـةـ لـلـبيـعـ اـتـ: وـ مـوـ اـسـتـعـدـاـدـ لـيـقـدـرـةـ وـ لـهـ بـعـ لـدـيـ فـلـعـيـ لـهـنـ ظـيـبـ بـعـىـ 1ـ بـتـتـ الـلـفـوـلـهـنـ ضـيـةـ لـلـبيـعـ اـتـ**

اـلـتـزـاهـيـيـ ضـيـةـ لـلـبيـعـ اـتـ						
مـوـفـلـقـ بـشـدـةـ	مـوـفـلـقـ	مـحـيـدـ	مـوـفـلـقـ	غـيـرـ	مـوـفـلـقـ بـشـدـةـ	
5	4	3	2	1	مـدـرـاءـ لـلـشـرـكـاتـ يـهـنـ لـجـوـنـ ظـائـمـ لـفـصـرـيـلـ عـلـيـةـ لـلـبيـعـ بـشـكـلـ صـحـيـحـ بـعـدـ فـلـوـرـةـ لـلـبيـعـ اـتـ.	1
5	4	3	2	1	مـدـرـاءـ لـلـشـرـكـاتـ يـتـعـقـدـونـ بـشـكـلـ عـامـ لـهـ مـنـ غـيـرـ لـقـبـولـ اـجـرـاءـتـ عـيـولـ وـتـغـيـيرـ بـعـدـ فـلـوـرـةـ لـلـبيـعـ اـتـ مـنـ اـجـلـ لـمـاـحـ لـلـنـيـطـنـ بـعـدـ ضـيـةـهـ قـبـلـ.	2
5	4	3	2	1	شـخـرـيـاـ اـتـقـدـ اـنـ لـيـسـ فـاـكـ ظـرـوـفـيـكـونـ قـبـوـ نـيـهـاـ اـجـرـاءـتـغـيـرـ لـفـصـرـيـلـ ضـيـةـ لـلـبيـعـ اـتـ لـفـعـ ضـيـهـهـ قـبـلـ.	3
5	4	3	2	1	إـذـاـ طـلـبـ لـلـنـيـطـنـ اـجـرـاءـتـغـيـرـ بـعـدـ فـلـوـرـةـ لـلـبيـعـ اـتـ تـخـيـيـتـلـهـوـاـ مـنـ فـعـهـنـ ئـلـ،ـلـنـفـلـعـلـ قـيـكـلـ مـمـ.	4
5	4	3	2	1	إـذـاـ مـتـبـ اـجـرـاءـتـغـيـرـ بـعـدـ فـلـوـرـةـ لـلـبيـعـ اـتـ تـخـيـيـتـلـهـوـاـ مـنـ فـعـهـنـ ئـلـ،ـسـلـعـرـ بـعـدـ لـرـضـاـ.	5
5	4	3	2	1	لـيـسـ فـاـكـ حـاـتـ اـجـدـ عـدـهـاـ أـنـهـ مـنـ لـهـمـرـ اـجـرـاءـعـضـ لـلـغـيـرـ بـعـدـ فـلـوـرـيـلـ ضـيـهـهـ لـلـبيـعـ اـتـ عـدـمـاـشـعـرـ اـنـ فـلـعـيـ ضـيـهـهـ لـلـبيـعـ اـتـ خـيـونـ قـدـتـ بـعـوـفـيـ قـيـمـهـ بـلـغـيـرـ.	6
5	4	3	2	1	مـعـظـمـ مـدـرـاءـ لـلـشـرـكـاتـ يـتـعـقـدـونـ لـهـ مـنـ غـيـرـ لـقـبـولـ أـرـيـتـمـتـغـيـرـ فـلـوـرـةـ لـلـبيـعـ اـتـ لـتـشـمـلـ لـلـمـرـفـاتـ لـلـخـصـةـ،ـ وـلـفـقـقـاتـ لـلـتـقـنـيـ مـبـلـلـيـعـ اـتـ لـفـعـ ضـيـةـهـ قـبـلـ.	7
5	4	3	2	1	لـتـعـقـدـ لـهـ مـنـ غـيـرـ لـقـبـولـ أـرـيـتـمـتـغـيـرـ فـلـوـرـةـ لـلـبيـعـ اـتـلـشـمـلـ فـقـقـاتـ خـصـيـقـهـ بـدـوـ تـقـنـيـ مـبـلـعـمـلـ مـنـ أـجـلـ لـفـعـ ضـرـطـابـ قـبـلـ.	8

5	4	3	2	1	مداء الشركات في بعض ١ حي ان ٢٠١٧ اون للتزام بالمعايير، أو تغيير المعايير، من أجل الامتثال للمطلوبات الجديدة. بلغت ردادض في ٢٠١٧ اون ٥٠٪.	9
5	4	3	2	1	يوجد فاكس ملطف في بعض ١ حي ان عن دلوجوء للتزام بالمعايير، أو تغيير المعايير، من أجل الامتثال للمطلوبات الجديدة. بلغت ردادض في ٢٠١٧ اون ٥٠٪.	10
5	4	3	2	1	سوف نشرع عدم الارض اذا متبأي شكل من الشكل للتعاب بفطورة للبيعات الامثل في للمطلوبات. بلغت ردادض في ٢٠١٧ اون ٥٠٪.	11

**10- لوحکم لعامه :** هي لاعنی لتي تفهي اخيارقاده لعلط و م ظه م و تلبيـلـلـمـ لـاقـدرـلـهـ اـدارـهـ مـوارـدـلـادـلـ بـشـكـلـفـعـالـ قـتـنـيـنـسـيـلـاـ سـلـيـمـ فـ عنـ اـختـ اـمـلـمـوـاطـنـ وـلـقـلـونـ وـتـظـيـمـ لـفـاعـلـ اـقـصـادـيـ وـاـخـمـاعـيـفـيـ اـ .

					يتحقق بالضرائب والقروض.	1
5	4	3	2	1	لوضع لسيطري محقوفي ا ردن.	1 2
5	4	3	2	1	ا هجاج لسيطري ي مدد ا سقراوفي ا ردن.	1 3
5	4	3	2	1	يوجد صرائع قليبي مدد ا سقراوفي ا ردن.	1 4
5	4	3	2	1	لقضاء ا رفي مهني ع تدخل لجوم.	1 5
5	4	3	2	1	لقضاء ا رفي ي دارب عدل و لفني في ا ردن .	1 6
5	4	3	2	1	الشرطه ا رفي فعل في لهنحة لجوم.	1 7



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### لقوس م لثني : لاعوامل الالي موغرفلية

يرجى وضع )٧( غلى ا جبطة لمن يليه أفاده  
عدسنهوات ع مر هشتك:

<input type="checkbox"/>	قل من 5 سنوا
<input type="checkbox"/>	5-10 سنوا
<input type="checkbox"/>	لث من 10 سنوا
<input type="checkbox"/>	لمركز لوظيفي لحلي لفهي لشراكه
<input type="checkbox"/>	في سنه تفهيمه ذي
<input type="checkbox"/>	مفي عام
<input type="checkbox"/>	لملوك/مفي
اخ ي, ل جاء لك ١٤	

في راد لبيعات لهدف ويلع ملتفين هي ة لهدفه  
ل مليه 2016:

<input type="checkbox"/>	قل من 100,000 هينار
<input type="checkbox"/>	5,000,000-100,000 هينار
<input type="checkbox"/>	لث من 5,000,000 هينار

لمف تلاغي هة:

<input type="checkbox"/>	لمن وى لثليوي
<input type="checkbox"/>	تيلوم
<input type="checkbox"/>	بايلوريوس
<input type="checkbox"/>	دريليا تهيا

عدد لموظفين لاعامي نفيفي نشاطك لتجاري :

<input type="checkbox"/>	9-1
<input type="checkbox"/>	49-10
<input type="checkbox"/>	249-50

الشاط لتصفي عي لوهبي:

<input type="checkbox"/>	الصناناع لمع جي وللوازم لطي
<input type="checkbox"/>	الصناناع ل سينيبيه وللماطاطي
<input type="checkbox"/>	الصناناع للريمانيه ومنت جن ا لتجهيل
<input type="checkbox"/>	الصناناع لعن دنيه وللماطاطي وملف طويجى المفروم
<input type="checkbox"/>	الصناناع لتجهيز واثاث
<input type="checkbox"/>	الصناناع ا شطبيه
<input type="checkbox"/>	صرناع لتبهى ولتبهيف وللورق وللكتون وللوازم لطفبي
<input type="checkbox"/>	الصناناع لتمهيف ولغبني ولزرابع ولث وة لتجهيز
<input type="checkbox"/>	الصناناع لتجهيز وللماطاطي
<input type="checkbox"/>	الصناناع لتعهيف

لتسجي لفيفي ضبيه لبيعات

من جل  من جل

شيكرا لجس نت عافكم

**Appendix C**  
*Summary of Income Tax Compliance Studies among SMEs Worldwide, 2000-2017*

	<b>Author(s); year</b>	<b>Country</b>	<b>Key Findings on Income Tax Compliance</b>
1	Jouffaian (2000)	USA	<ul style="list-style-type: none"> <li>Non-compliant firms are more likely to be managed by executives who have failed to comply with personal income tax than are compliant firms.</li> <li>High audit rates, lower tax rates, larger corporate size have a negative relation with tax non-compliance</li> <li>High income level has a positive effect on tax non-compliance.</li> <li>Foreign ownership has an insignificant impact on tax non-compliance.</li> </ul>
2	Hanlon et al. (2005)	USA	<ul style="list-style-type: none"> <li>The non-compliance in large companies is higher than in small and medium enterprises, while the tax non-compliance of medium enterprises is lower.</li> <li>Tax rate and governance quality does not have an impact on the compliance behaviour of a firm's taxpayers.</li> <li>Corporates in the private sector are linked with higher non-compliance.</li> </ul>
3	Birskyte (2014)	USA	<ul style="list-style-type: none"> <li>Higher confidence in government improves tax compliance.</li> </ul>
4	Chan and Mo (2000)	China	<ul style="list-style-type: none"> <li>Corporates are less compliant before a tax holiday.</li> <li>Most corporates are more compliant in a tax-exemption period.</li> <li>Domestic market-oriented corporates, service-oriented corporates, and joint ventures are less compliant than export-oriented corporates, wholly foreign-owned corporates and manufacturing-oriented corporates, respectively</li> </ul>
5	Evans et al. (2005)	Australia	<ul style="list-style-type: none"> <li>Poor SME record keeping practices leads to a decrease in tax compliance.</li> <li>Tax compliance costs have a positive relation with poor record keeping.</li> </ul>
6	Langham et al. (2012)	Australia	Taxpayers do not have enough control over their behavior to guarantee the

			successful fulfilment of all tax tasks.
7	Hasseldine et al. (2007)	UK	<ul style="list-style-type: none"> <li>• A high level of intention does not always mean compliance, and tax complexity has a negative correlation with the willingness to be tax compliant.</li> </ul>
8	Nur-Tegin (2008)	27 transition economie s	<ul style="list-style-type: none"> <li>• Communications are particularly efficient for self-preparers when reporting turnover.</li> <li>• In general, tax penalties letters are more efficient than normative citizenship letters for reported turnover.</li> </ul>
9	Abdul-Jabbar (2009)	Malaysia	<ul style="list-style-type: none"> <li>• Anti-corruption, tax audit, tax reforms, and tax fairness have a positive relation with tax compliance.</li> <li>• A tax rate increase does not seem to cause companies to under-report their tax.</li> <li>• Owned enterprises in the private sector are more likely to evade than owned enterprises in the public sector.</li> </ul>
10	Hai & See (2011)	Malaysia	<ul style="list-style-type: none"> <li>• An increase in tax complexity and a decrease in tax audit are positively associated with an increase in tax non-compliance.</li> <li>• Business size, tax level, tax fairness, IRB relationship and tax compliance costs do not affect the tax compliance behavior.</li> <li>• The impact of sector, business age, tax rate and incentives on the income tax compliance behavior of company SMEs is inconclusive.</li> </ul>
11	Sapiei et al. (2014)	Malaysia	<ul style="list-style-type: none"> <li>• Attitudinal variables (expected tax cost, tax fairness), subjective norms variables (unapproved account preparer and unapproved tax preparer and) and demographic variables (age and gender) have a positive correlation with the tax non-compliance intention of sole proprietors.</li> </ul>
			<ul style="list-style-type: none"> <li>• Tax compliance cost has an insignificant relation with tax compliance. Large and medium-sized are more non-compliant than small-sized.</li> <li>• PLCs in the manufacturing sector are more compliant than those in the services</li> </ul>

			sector.
12	Yusof et al. (2014)	Malaysia	<ul style="list-style-type: none"> <li>• Tax complexity and tax psychological costs have a positive relation with tax non-compliance.</li> <li>• PLCs with a lower tax liability tend to be more non-compliant. Older corporations are more compliant than their younger counterparts.</li> <li>• Tax audit and tax penalty lead to reduced tax non-compliance.</li> </ul>
13	Tedds (2010)	80 Courtiers	<ul style="list-style-type: none"> <li>• An increase in tax rate and tax penalty has a positive relationship with tax non-compliance.</li> <li>• Financial and foreign ownership liquidity has no impact on tax non-compliance.</li> <li>• Large corporates are more compliant than small corporates.</li> <li>• There is a positive correlation between industry type and SMCs tax non-compliance.</li> </ul>
14	Yong (2012)	New Zealand	<ul style="list-style-type: none"> <li>• Corporates throughout the world share in tax non-compliance.</li> <li>• The corruption of government and tax rate are the main reasons for tax non-compliance</li> <li>• Political instability, get on financing, tax fairness and organized crime were found to have no impact on tax non-compliance.</li> <li>• There is a significant relationship among tax non-compliance and the legal organization of the business, age, size, ownership, audit controls and competition.</li> </ul>
15	Brainyyah (2013)	Indonesia	<ul style="list-style-type: none"> <li>• Unfair procedures have a negative correlation with the willingness of taxpayers to interact with the tax authority.</li> <li>• Tax audit operations are ineffective in detecting tax cheating by the business owner</li> </ul>
			<ul style="list-style-type: none"> <li>• Tax fairness positively affect taxa compliance</li> <li>• Tax knowledge insignificantly impacts tax compliance,</li> <li>• Tax complexity has a negative linkage with tax compliance.</li> </ul>

16	Inasius (2015)	Indonesia	<ul style="list-style-type: none"> <li>Income tax rate has a negative relation with tax compliance</li> <li>Tax audit, tax knowledge and referral group have a positive relationship with tax compliance.</li> </ul>
17	Akinboade (2014)	Cameroon	<ul style="list-style-type: none"> <li>Time-consuming operations, high registration cost, and complex tax system promote the tax non-compliance of SMEs owners.</li> <li>Perception of the tax system as being fair, clear, easy to understand promotes the tax compliance of SME owners.</li> </ul>
18	Mahangila (2014)	Tanzania	<ul style="list-style-type: none"> <li>Corporate income tax penalties levied on managers (responsible persons) are more effective than corporate income tax penalties charged on corporates.</li> <li>The retributive justice of corporate income tax penalties has a positive correlation with tax compliance.</li> <li>High tax compliance costs have a negative relation with tax compliance.</li> </ul>
19	Antwi et al. (2015)	Ghana	<ul style="list-style-type: none"> <li>Women are more non-compliant with tax laws.</li> <li>High education positively affects the non-compliance rate.</li> <li>Older people are more compliant compared to their younger counterparts.</li> <li>Marital status has a correlation with entrepreneurs' non-compliance behavior.</li> </ul>
20	Ayuba et al. (2015)	Nigeria	<ul style="list-style-type: none"> <li>There is interacting effect of perceived service orientation on the relation among work family conflict and tax compliance behavior, while no interacting effect was found between fuel subsidy removal and tax compliance</li> </ul>
21	Oladipupo and Obazee (2016)	Nigeria	<ul style="list-style-type: none"> <li>Tax knowledge and tax sanctions have a positive correlation with tax compliance.</li> </ul>
22	Musimenta et al. (2017)	Uganda	<ul style="list-style-type: none"> <li>Tax fairness and isomorphic forces were significant relationships between with tax compliance.</li> <li>Strategic responses were insignificant relation wiyh tax compliance.</li> </ul>

Source: Abdul-Jabbar (2009) extended by the author (2017)

## Appendix D

### *Summary of Income Tax Compliance Studies in Middle East and Arab Countries, 1977-2016.*

<b>Author(s); year</b>	<b>Country</b>	<b>Key Findings on Income Tax Compliance</b>
1 Mahmmud (1977)	Egypt	<ul style="list-style-type: none"> <li>• Weak tax law, tax unfairness, and poor awareness taxpayer has a positive relationship with tax evasion.</li> </ul>
2 Al-Bahwashi (1986)	Egypt	<ul style="list-style-type: none"> <li>• Tax rate, tax audit, middle and low income has a positive relationship with tax evasion.</li> </ul>
3 Al-Said (2001)	Egypt	<ul style="list-style-type: none"> <li>• Unfair tax exemption leads to increased tax evasion; tax rate is positively linked with tax evasion</li> </ul>
4 Nomani (2011)	Egypt	<ul style="list-style-type: none"> <li>• Lack of transparency of public expenditure increases income tax evasion.</li> </ul>
5 Said (2011)	Egypt	<ul style="list-style-type: none"> <li>• Loopholes in tax law and decrease in trust between taxpayers and government lead to tax evasion.</li> </ul>
6 Alkatib (2000)	Syria	<ul style="list-style-type: none"> <li>• Taxpayers do not have morals or a willingness to pay their tax in Syria.</li> <li>• There is no trust between taxpayers and government.</li> <li>• Goods and service provided by the government are disproportionate to the size of tax payment, and government does not do anything for taxpayers.</li> <li>• Tax rate is high and tax system is unfair.</li> </ul>
7 Akroush and Zouhiri (2005)	Syria	<ul style="list-style-type: none"> <li>• Low wages and salary of tax department employees, increase in tax rate and unemployment were positively correlated with tax evasion.</li> </ul>
8 Mrouh (2011)	Syria	<ul style="list-style-type: none"> <li>• Tax rate increase is positively linked with an increase in tax evasion and governmental revenues in Syria.</li> <li>• Tax penalty has a positive relation with reduced tax evasion in Syria.</li> </ul>

9	Al-Adi and Abdullah (2013)	Syria	<ul style="list-style-type: none"> <li>• There is a positive relation between the fairness of the tax system and reduced tax evasion.</li> </ul>
10	Al-Adi (2015)	Syria	<ul style="list-style-type: none"> <li>• Tax complexity and tax unfairness have a positive correlation with tax evasion.</li> </ul>
11	Mansour (2004)	Palestine	<ul style="list-style-type: none"> <li>• The inefficiency of the tax penalty in Palestine.</li> <li>• The political and economic instability in Palestine.</li> <li>• Low cooperation between tax authority and taxpayers.</li> </ul>
12	Al-Omour (2007)	Palestine	<ul style="list-style-type: none"> <li>• The absence of security and political stability in the Gaza strip plays a major role in spreading the phenomenon of income tax evasion.</li> <li>• The lack of credibility in the general expenditure.</li> <li>• Clear lack of tax awareness can be noticed from the taxable to the role of income tax in supporting the treasury of the country.</li> </ul>
13	Dergham and Al-Omour (2009)	Palestine	<ul style="list-style-type: none"> <li>• Absences of security and political stability, full sovereignty of the Palestinian Authority over the Palestinian territories and the lack of transparency of public expenditure have a positive relationship with tax evasion.</li> </ul>
14	Ateeq (2013)	Palestine	<ul style="list-style-type: none"> <li>• Tax authority suffers from serious structural and functional deficiencies that lead to ignorance of taxpayer concerning the significance and objectives of tax and increased tax evasion.</li> </ul>
15	Saruc (2001)	Turkey	<ul style="list-style-type: none"> <li>• Increase in tax audit and tax penalty have a positive relation with tax evasion.</li> <li>• Ethics have a negative relation with tax evasion.</li> <li>• Young taxpayers are more likely to evade.</li> </ul>

			<ul style="list-style-type: none"> <li>• High level income has a positive relation with tax evasion.</li> </ul>
16	McGee et al. (2011)	Turkey	<ul style="list-style-type: none"> <li>• Males are more strongly opposed to tax non-compliance than females in Turkey.</li> <li>• The youngest group is least opposed to tax non-compliance in Turkey.</li> <li>• Tax non-compliance could be considered ethical in some respects and unethical in other cases in Turkey.</li> </ul>
17	Çevik and Yeniçeri (2013)	Turkey	<ul style="list-style-type: none"> <li>• Social norms are positively related to tax compliance.</li> <li>• Efficiency of tax administration has a significant positive moderating impact on the connection among social norms and tax compliance.</li> </ul>
18	Aljaaidi et al. (2011)	Yemen	<ul style="list-style-type: none"> <li>• Old people, female, single people, level of income and employees who work for the government have a negative relation with tax evasion in Yemen.</li> <li>• Highly educated people in Yemen perceived tax evasion as a more serious crime than those with medium and low education.</li> </ul>
19	Megble (2012)	Yemen	<ul style="list-style-type: none"> <li>• Tax unfairness, inadequate tax authority, ineffective tax penalty, prevalence of corruption among tax officers, unawareness of taxpayers and no trust among taxpayers and tax authority have a positive relationship with tax evasion.</li> </ul>
20	Al-Ttaffi and Abdul-Jabbar (2016)	Yemen	<ul style="list-style-type: none"> <li>• Tax service quality had a positive relation with income tax compliance of SMEs owners.</li> </ul>
21	Juhi (2011)	Iraq	<ul style="list-style-type: none"> <li>• There is positive relationship between tax compliance and tax fairness, and exchange with government and tax structure.</li> </ul>

22	Samarrai and Obeidi (2012)	Iraq	<ul style="list-style-type: none"> <li>• Tax unfairness and poor awareness of taxpayers have a positive relationship with tax evasion.</li> </ul>
23	Baqer (2015)	Iraq	<ul style="list-style-type: none"> <li>• Tax complexity, tax unfairness and inadequate tax authority lead to increased tax evasion.</li> </ul>
24	Kazem (2016)	Iraq	<ul style="list-style-type: none"> <li>• Taxpayers do not trust the tax office; the services and infrastructure are not good enough for the taxpayers.</li> </ul>
25	Kabashi (2007)	Sudan	<ul style="list-style-type: none"> <li>• The instability of tax legislation, the absence of well-trained employees, and the increase in tax rates have a positive relationship with tax evasion.</li> </ul>
26	Abdul-Majid (2011)	Sudan	<ul style="list-style-type: none"> <li>• No tax penalty to prevent taxpayers from tax evasion, together with the absence of tax equity among taxpayers, and the weakness of tax awareness among taxpayers.</li> </ul>
27	Ali (2013)	Sudan	<ul style="list-style-type: none"> <li>• Majority businesses do not keep regular and sound accounting records and ledgers.</li> <li>• accounting systems applied on the economic units were weak, incomplete, or even not available in some units, all of which contributed to tax evasion</li> </ul>
28	Zaied (2009)	Algeria	<ul style="list-style-type: none"> <li>• There is positive relation among increase in tax penalty, tax rate, education and confidence in the government with an increase in tax evasion in Algeria.</li> </ul>
29	Murad (2010)	Algeria	<ul style="list-style-type: none"> <li>• Uunfair tax system, unpredictability of tax law, inadequate tax authority, tax rate is high are all positively associated with tax</li> </ul>

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		evasion.
30	Mohamed (2015) Libya	<ul style="list-style-type: none"> <li>• A positive relationship among tax rate, corruption, Islamic religion and tax penalty with tax evasion.</li> <li>• There is a negative relationship between education level and tax evasion.</li> </ul>
31	Alshaibani (2014) Morocco	<ul style="list-style-type: none"> <li>• Lack of taxpayer's awareness, tax unfairness, tax complexity and loophole in tax laws are main reasons for high level of tax evasion.</li> </ul>

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Source: Compiled by the author (2016)



**Appendix E**  
*Summary of Income Tax Compliance Studies in Jordan, 1994-2016.*

<b>Author(s); year</b>	<b>Sample</b>	<b>Key Findings on Income Tax Compliance</b>
1 Awamleh (1994)	174 employees in income tax department	<ul style="list-style-type: none"> <li>• Taxpayers are not satisfied with the income tax department</li> <li>• There are several economic, political, social and managerial obstacles that limit the performance of the income tax department</li> </ul>
2 Al-Khdour (1999)	Data analysis of income tax revenue over the period 1976-1997.	<ul style="list-style-type: none"> <li>• Increase in the tax rate is the main reason for income tax evasion.</li> </ul>
3 Zaiton (2003)	188 external auditors and 127 tax auditors.	<ul style="list-style-type: none"> <li>• Level of confidence between taxpayers and tax authority is low.</li> <li>• Information about taxpayers is low.</li> </ul>
4 Al-Maharma (2003)	200 personal income taxpayers in private sector.	<ul style="list-style-type: none"> <li>• Taxpayer's weak awareness of the importance of tax payment.</li> <li>• There is no trust between citizens and the government.</li> <li>• The tax auditors in the tax authority are inexperienced and efficiency in reduce tax income evasion.</li> </ul>
5 Bataineh (2003)	76 doctors, 43 lawyers, 55 pharmacists and 29 engineers (income taxpayers).	<ul style="list-style-type: none"> <li>• Decrease in tax rate leads to a decrease in tax income evasion.</li> <li>• Experience of employees has a negative relation with tax income evasion.</li> </ul>
6 Al-oran and Al-Khdour (2004)	Data analysis of income tax revenue over the period 1976-1997	<ul style="list-style-type: none"> <li>• Tax rate and economic condition have a positive correlation with tax evasion.</li> </ul>
7 Muhamm (2004)	25 Tax auditors	<ul style="list-style-type: none"> <li>• There is a relation between the income tax (unclear law, high tax ratio,</li> </ul>

			unfair law and lack of penalty for evasion) and increase in tax income evasion.
8	Haddad (2006)	111 External auditors and 78 Tax auditors	<ul style="list-style-type: none"> <li>• Tax audit is effective in reducing tax income evasion.</li> <li>• There are loopholes in the income tax law that facilitate tax evasion</li> </ul>
9	Abusnina (2008)	91 External auditors	<ul style="list-style-type: none"> <li>• Bad economic situation has a positive correlation with tax evasion.</li> <li>• Tax penalties are of no use in limiting tax evasion.</li> </ul>
10	Khasawneh et al .(2008)	275 personal income taxpayers	<ul style="list-style-type: none"> <li>• Tax system is fair.</li> <li>• Income tax law is fair.</li> <li>• Tax rate structure is fair.</li> </ul>
11	Slehat (2009)	212 income taxpayers for private and public sectors	<ul style="list-style-type: none"> <li>• Positive significant relationship among increase in penalty rate, tax rate, tax audit, tax fairness, religion, and ethics with increase in tax evasion.</li> <li>• Education and level of income is significantly negatively related to tax evasion.</li> <li>• No significant correlation between marital status, age, gender, and source of income with tax evasion.</li> </ul>
12	Al-Zou'bi (2010)	614 of income tax assessors	<ul style="list-style-type: none"> <li>• Psychological, ethical and social factors have statistically significant effect on the level of the income tax compliance.</li> </ul>
13	Alkhoudour (2011)	Data analysis of income tax revenue over the period 1977-2010.	<ul style="list-style-type: none"> <li>• Unemployment rate has a negative effect on tax evasion.</li> <li>• Depreciation of the Jordanian dinar in 1988 had a positive effect on tax evasion in Jordan.</li> </ul>
14	Olaimat (2012)	90 income tax auditors	<ul style="list-style-type: none"> <li>• Personal, administrative, legislative, economic and social factors play a major role in tax evasion.</li> <li>• Manipulating revenue and expenses without keeping accounting records is considered to be one of the most important forms of tax evasion.</li> </ul>

15	Al-Zoubi et al. (2013)	120 income tax auditors	<ul style="list-style-type: none"> <li>• Tax penalties insufficient to reduce tax evasion.</li> <li>• Employees in tax authority do not have experience for treatment of tax evasion.</li> </ul>
16	Qblan (2014)	100 income tax auditors	<ul style="list-style-type: none"> <li>• Accounting policies impact on the temporary income tax Act No. (28) of 2009 to limit tax evasion.</li> <li>• Procedures applied by the tax department have no impact on limiting tax evasion.</li> </ul>
17	Al-Falahat and Zaidan (2014)	12 external auditors and 18 tax auditors.	<ul style="list-style-type: none"> <li>• There is an increase in the amount of evasion in Jordan.</li> <li>• Tax evasion is intentional acts of and planned in Jordan, with taxpayers paying huge amounts of money to tax advisors to help hide their money from taxes.</li> </ul>
18	Al-Sheikh et al. (2016)	173 external auditors	<ul style="list-style-type: none"> <li>• Tax penalty, tax rate and company size have a significant effect on income tax evasion</li> </ul>

Source: Compiled by the author (2016)

**Appendix F**  
*Summary of Sales Tax Compliance Studies Worldwide, 1995-2015.*

<b>Author(s); year</b>	<b>Countries</b>	<b>Key Findings on Sales Tax Compliance</b>
1 Murray (1995)	USA	<ul style="list-style-type: none"> <li>• Greater non-compliance opportunities contribute to an increase in sales tax non-compliance.</li> <li>• <u>Policy of tax audit has no obvious effect on combatting sales tax non-compliance.</u></li> </ul>
2 Agha and Haughton (1996)	17 OECD countries	<ul style="list-style-type: none"> <li>• Higher VAT rate is negatively linked with tax compliance.</li> <li>• Longer experience of administering VAT leads to an increase in VAT compliance.</li> </ul>
3 Adams and Webley (2001)	UK	<ul style="list-style-type: none"> <li>• Inequitable tax system and a decrease of tax morals are positively related with VAT non-compliance.</li> <li>• Major opportunities for non-compliance mask a tendency to cheat if the penalties are not so extensive</li> </ul>
4 Webley et al. (2004)	UK	<ul style="list-style-type: none"> <li>• Tax department is powerful, tax non-compliance behaviour is unacceptable, business owners admitted to sometimes engaging in non-compliance, a large majority of business owners perceived that the VAT law is unjust for small business, social norms are affected by VAT compliance behaviour and mental accounting has an insignificant relation with VAT compliance.</li> </ul>
5 Engel et al. (2001)	Chile	<ul style="list-style-type: none"> <li>• An increase in enforcement spending leads to an increases in VAT compliance.</li> <li>• Tax rate is positively correlated with VAT compliance.</li> </ul>
6 Bergman and Nevarez (2006)	Chile and Argentina	<ul style="list-style-type: none"> <li>• Tax audits have a negative effect on prompting VAT non-compliance behaviour among evaders, but have a more positive impact on those inclined to comply.</li> </ul>
7 Matthews	14	<ul style="list-style-type: none"> <li>• VAT system efficiency is reduced with an increase in VAT rate.</li> </ul>

	(2003)	countries in the EU	<ul style="list-style-type: none"> <li>• VAT non-compliance is positively linked to the tax rate.</li> </ul>
8	Salleh (2009)	Malaysia	<ul style="list-style-type: none"> <li>• Negative relationship among fair perception of tax system, complexity, tax knowledge and perception of tax law, and enforcement and registration as local sales tax licensee.</li> </ul>
9	Symons et al. (2010)	145 countries	<ul style="list-style-type: none"> <li>• VAT is the prevalent form of consumption tax system applied in the world,</li> <li>• The time necessary to comply with VAT differs considerable around the world and among neighbouring countries.</li> <li>• VAT compliance in developed countries takes less time than in developing countries.</li> <li>• VAT Compliance takes a longer time when extra documentation has been submitted with the VAT return.</li> <li>• Administrative procedures vary from country to country and have a significant effect on how long it takes to be VAT compliant.</li> </ul>
10	Johnson et al. (2010)	Canada	<ul style="list-style-type: none"> <li>• Increasing the tax audit does not necessarily lead to a reduction in tax non-compliance</li> </ul>
11	Naibei (2011)	Kenya	<ul style="list-style-type: none"> <li>• Positive correlation between the use of ETRs and VAT compliance.</li> <li>• VAT compliance is lower among firms that have middle turnover sales, while large companies are highly VAT compliant. Equally, VAT compliance is good among the companies with the lowest sales turnover</li> <li>• Tax audit has a positive relationship with VAT compliance.</li> </ul>
12	Wawire (2011)	Kenya	<ul style="list-style-type: none"> <li>• Certain factors demographic, institutional and structural features of the economy have a positive effect on VAT revenue.</li> </ul>
13	Naibei et al. (2012)	Kenya	<ul style="list-style-type: none"> <li>• VAT non-compliance is high in middle-income enterprises.</li> <li>• There is a positive link between VAT compliance and tax audit.</li> <li>• A regular and effective use of tax registers is positively correlated with VAT</li> </ul>

			compliance.
14	Biabani and Amezani (2011)	Iran	<ul style="list-style-type: none"> <li>• Tax compliance cost and tax culture have a positive relationship with VAT compliance.</li> <li>• Tax complexity has an insignificant association with VAT compliance.</li> </ul>
15	Giesecke and Tran (2012)	Vietnam	<ul style="list-style-type: none"> <li>• A VAT compliance rate of around 13%, raising VAT rates and removing or reducing exemptions can be an efficient means of raising VAT revenue.</li> </ul>
16	Oladipupo and Izedonmi (2013)	Nigeria	<ul style="list-style-type: none"> <li>• Most respondents do not have knowledge of VAT law in Nigeria, irrespective of their literacy level.</li> <li>• Poor knowledge of tax laws is responsible for the high level of taxpayer's non-compliance.</li> </ul>
17	Eragbhe and Omoye (2014)	Nigeria	<ul style="list-style-type: none"> <li>• Business age, employee size, turnover, industry class and distance to tax office have a negative relationship with VAT tax compliance costs.</li> <li>• There is a positive correlation between export status and outsourcing and VAT tax compliance costs.</li> </ul>
18	Faridy et al. (2014)	Bangladesh	<ul style="list-style-type: none"> <li>• SMEs contribution in VAT revenue is underrepresented in Bangladesh.</li> <li>• Complexity in VAT law and compliance costs positively affects VAT non-compliance in SMEs.</li> <li>• Tax audits and tax penalties were found have little impact on VAT non-compliance.</li> </ul>
19	Woodward and Tan (2015)	New Zealand	<ul style="list-style-type: none"> <li>• Tax penalty, tax audit, tax fairness and tax morals have a positive relation with GST compliance.</li> </ul>

Source: Compiled by the author (2016)

**Appendix G**  
*Six Stages of Moral Reasoning*

Level	Moral reasoning
Level 1	<b>Pre-conventional level (Individual Perspective)</b> The punishment and obedience orientation, you do what you are required firstly to avert penalty.
	Stage 1 Pragmatic selfhood and Simple reciprocity. Solely consideration the cost and/or self-interest.
Level 2	<b>Conventional level (Member of Society Perspective)</b> Interpersonal Concordance. Be considerate the good conduct and get along with different people. Attention and collaboration with persons and help them in your surrounding environment.
	Stage 2 Pragmatic selfhood and Simple reciprocity. Solely consideration the cost and/or self-interest.
Level 3	<b>Post-conventional, Autonomous, or Principled Level</b> Social- contract, legalistic orientation. There is an evident knowledge that right action tends to be defined in terms of general personal standards and right, which agreed upon by the all society as determined by fairness and equality.
	Stage 3 The law and order. There is tendency toward respect and obey authority, conservation of the social order by people who live in society.
Level 4	<b>Post-conventional, Autonomous, or Principled Level</b> Social- contract, legalistic orientation. There is an evident knowledge that right action tends to be defined in terms of general personal standards and right, which agreed upon by the all society as determined by fairness and equality.
	Stage 4 The law and order. There is tendency toward respect and obey authority, conservation of the social order by people who live in society.
Level 5	<b>Post-conventional, Autonomous, or Principled Level</b> Social- contract, legalistic orientation. There is an evident knowledge that right action tends to be defined in terms of general personal standards and right, which agreed upon by the all society as determined by fairness and equality.
	Stage 5 Universal ethical, principal. The decisions of persons accord with ethical principles which derived from principle of fairness, equality of human rights and respect for the dignity of human beings as individual persons.
Level 6	<b>Post-conventional, Autonomous, or Principled Level</b> Social- contract, legalistic orientation. There is an evident knowledge that right action tends to be defined in terms of general personal standards and right, which agreed upon by the all society as determined by fairness and equality.
	Stage 6 Universal ethical, principal. The decisions of persons accord with ethical principles which derived from principle of fairness, equality of human rights and respect for the dignity of human beings as individual persons.

Source: Kohlberg and Hersh (1977).

**Appendix H**  
*Differences between Good and Bad Governance*

<b>Good Governance</b>	<b>Bad Governance</b>
1 The authority described as institutional and it is appropriated to officials.	The authority is personal rather than institutional and it is appropriated to individuals.
2 Political leaders and others who share power are held accountable for their actions and the decisions they make.	Political leadership employ monopolistic power and are not accountable for both their actions and decisions.
3 Leaders wield their power by the provision of collective benefits that garner societal support.	Leaders use their power by providing collective benefits that only garners specific societal segments.
4 The government takes policy decisions in with transparency following public discussion and review.	The government takes policy decisions in secret without the involvement of the public.
5 Standards of decision-making are clear, with transparent procedures.	Standards of decision-making are ambiguous and procedures are carried out in secret.
6 Political parties are formed around stated programs affecting significant numbers of beneficiaries characterized by either universal or generic categories.	Political parties are formed around personalities and the distribution of individual benefits.
7 Political campaigns are supported by numerous, transparent donations.	Political campaigns are financed by major, secret donations.
8 Elections are held in an atmosphere that is free, fair, open and competitive.	Elections are characterized by intimidation, buying of votes, rigging and fraud.
9 The civil engineering projects are appropriated to meet the interests of significant portions of societal citizenry.	The civil engineering projects are only appropriated to meet the interests of small portions of the societal citizenry.
10 The recruitment and promotion of administrators involves a competitive processes based on merit and expertise.	The recruitment and promotion of administrators entails reward for personal relationships with political leaders and power brokers.
11 An authorized administrative hierarchy exists with clear labour, division, certain output standard, and well-defined channels of reporting.	An unspoken hierarchy exists with little to no specialization of output and ambiguous reporting channels.
12 Dismissal of administrators is based on cause and aligned with codified rules and procedures.	Dismissal of administrators is based on ambiguous reasons that are inconsistent with rules and procedures.
13 Administrators are not allowed to supplement their salary with extra	Administrators may supplement their salary through bribes and kickbacks.

	income or through bribery or other fraudulent means.	
14	The actions of administrators are predictable and are according to the objective methods, and standard procedures.	The actions of administrators are not predictable and are according to subjective reasoning and sub-standard procedures.
15	Rules are implemented in neutral and justified means to all citizens.	Rules are implemented favouring other people that are closely related to government.
16	Legal contracts that are binding are used in government procurement and sales.	Contracts that are conducted through verbal agreements are used in government procurement and sales.
17	There are strict internal controls, with clear records that are audited in a regular manner.	Lack of internal controls exists and documentation is lackadaisical with some matters omitted from records.
18	Citizens are allowed to appeal through proper channels to seek redress from poor service received.	Citizens have little to no recourse when they receive poor service or when they want to raise complaints.

Source: Brinkerhoff and Goldsmith (2005)



**Appendix I**  
**Replace Missing Values**

	Result Variable	N of Replaced Missing Values	Case Number of Non-Missing Values		N of Valid Cases	Creating Function
			First	Last		
1	TR2_1	1	1	215	215	SMEAN(TR2)
2	TR3_1	2	1	215	215	SMEAN(TR3)
3	TA2_1	2	1	215	215	SMEAN(TA2)
4	TA3_1	1	1	215	215	SMEAN(TA3)
5	TP1_1	1	1	215	215	SMEAN(TP1)
6	TP2_1	1	1	215	215	SMEAN(TP2)
7	TP3_1	1	1	215	215	SMEAN(TP3)
8	TP4_1	1	1	215	215	SMEAN(TP4)
9	TC3_1	2	1	215	215	SMEAN(TC3)
10	TC4_1	1	1	215	215	SMEAN(TC4)
11	TC6_1	1	1	215	215	SMEAN(STC6)
12	TF1_1	1	1	215	215	SMEAN(TF1)
13	TF3_1	1	1	215	215	SMEAN(TF3)
14	TF4_1	1	1	215	215	SMEAN(TF4)
15	PI1_1	1	1	215	215	SMEAN(PI1)
16	PI2_1	1	1	215	215	SMEAN(PI2)
17	PI6_1	1	1	215	215	SMEAN(PI6)
18	PA1_1	2	1	215	215	SMEAN(PA1)
19	PA6_1	2	1	215	215	SMEAN(PA6)
20	TM3_1	1	1	215	215	SMEAN(TM3)
21	TM6_1	1	1	215	215	SMEAN(TM6)
22	TM8_1	1	1	215	215	SMEAN(TM8)
23	TM10_1	1	1	215	215	SMEAN(TM10)
24	STCM2_1	1	1	215	215	SMEAN(STCM 2)
25	STCM3_1	1	1	215	215	SMEAN(STCM 3)
26	STCM7_1	1	1	215	215	SMEAN(STCM 7)
27	STCM8_1	1	1	215	215	SMEAN(STCM 8)
28	STCM10_1	1	1	215	215	SMEAN(STCM 10)
29	STCM11_1	1	1	215	215	SMEAN(STCM 11)
30	PG4_1	1	1	215	215	SMEAN(PG4)
31	PG5_1	1	1	215	215	SMEAN(PG5)
32	PG6_1	1	1	215	215	SMEAN(PG6)
33	PG7_1	1	1	215	215	SMEAN(PG7)
34	PG8_1	1	1	215	215	SMEAN(PG8)
35	PG9_1	1	1	215	215	SMEAN(PG9)
36	PG10_1	1	1	215	215	SMEAN(PG10)
37	PG11_1	1	1	215	215	SMEAN(PG11)
38	PG12_1	1	1	215	215	SMEAN(PG12)
39	PG13_1	1	1	215	215	SMEAN(PG13)
40	PG14_1	1	1	215	215	SMEAN(PG14)
41	PG17_1	2	1	215	215	SMEAN(PG17)

**Appendix J**  
**Outlier (Mahalanobis) Test**

N	MAH 1	N	MAH 1	N	MAH 1	N	MAH 1	N	MAH 1	N	MAH 1	N	MAH 1
1	14.2144	32	10.2694	63	11.09380	94	4.61877	125	4.85174	156	2.89117	187	8.88795
2	6.26190	33	8.23793	64	1.91262	95	8.03074	126	4.23757	157	5.10521	188	5.49259
3	8.16354	34	22.9253	65	1.84849	96	5.22122	127	21.56757	158	2.86581	189	11.4594
4	6.75596	35	2.31765	66	2.21640	97	25.48230	128	2.11183	159	7.58305	190	14.6134
5	12.24567	36	3.62414	67	4.68760	98	7.39668	129	13.94372	160	6.47614	191	3.66447
6	<b>35.92847</b>	37	5.54598	68	10.11882	99	6.95316	130	12.77719	161	2.15096	192	12.1853
7	23.07301	38	11.9872	69	16.71552	100	25.41389	131	5.71675	162	5.86828	193	15.6744
8	16.30238	39	6.69661	70	12.79158	101	25.56895	132	2.19790	163	22.6482	194	5.67031
9	1.40622	40	3.86928	71	2.00742	102	5.14763	133	9.83727	164	22.4893	195	7.62361
10	4.67838	41	6.76030	72	20.59362	103	12.64717	134	4.06000	165	5.28479	196	5.65430
11	9.20894	42	7.81389	73	5.63703	104	2.02525	135	3.30721	166	7.78778	197	16.0193
12	3.53780	43	6.85907	74	3.61797	105	22.82336	136	9.06083	167	9.99408	198	10.0734
13	5.14355	44	1.42445	75	3.46359	106	4.25783	137	16.80133	168	5.87463	199	4.06279
14	7.41396	45	8.05026	76	8.74203	107	9.17749	138	4.53580	169	22.6231	200	10.4264
15	7.77388	46	4.69952	77	9.97602	108	5.03144	139	6.48454	170	3.22959	201	6.19835
16	3.25098	47	2.87226	78	4.53635	109	8.74937	140	2.48653	171	5.18154	202	8.01505
17	9.93723	48	9.50806	79	8.19269	110	25.05757	141	11.58608	172	13.0002	203	6.48544
18	7.97338	49	8.58457	80	14.72646	111	10.29621	142	6.57579	173	19.6831	204	4.12886
19	6.64280	50	<b>37.4919</b>	81	8.93961	112	7.43176	143	3.53180	174	19.0344	205	6.09288
20	4.44404	51	4.99912	82	12.65679	113	1.47120	144	14.17117	175	8.72859	206	8.51249
21	9.21090	52	4.31945	83	6.21292	114	17.27244	145	5.60578	176	12.4154	207	5.22141
22	4.29593	53	16.0336	84	3.42837	115	12.88509	146	5.80313	177	7.68510	208	6.28365
23	4.17313	54	13.3863	85	3.92268	116	5.44005	147	6.56774	178	7.25467	209	4.07305
24	5.43014	55	5.97646	86	6.55766	117	3.89835	148	4.91880	179	7.41963	210	7.11848
25	11.71722	56	6.85444	87	10.73934	118	3.43865	149	4.58269	180	6.18166	211	12.3582
26	8.98632	57	3.30462	88	7.56612	119	4.16521	150	1.46917	181	22.7493	212	6.39234
27	16.60784	58	4.08209	89	15.62738	120	<b>42.76886</b>	151	3.40796	182	6.03821	213	3.62756
28	4.52794	59	5.09644	90	26.03387	121	19.04093	152	5.37839	183	13.6573	214	7.51405
29	7.83279	60	13.6636	91	6.62944	122	21.39484	153	3.23971	184	10.4499	215	4.61398
30	4.24209	61	10.6820	92	6.62172	123	2.23341	154	8.20607	185	6.65733		
31	2.98152	62	13.9372	93	9.55129	124	5.53885	155	2.49320	186	12.8520		

**Appendix K**  
**Normality Test**

	TR	TA	TP	TC	TF	PI	PA	TM	STCM	PG
Valid	212	212	212	212	212	212	212	212	212	212
Missing	0	0	0	0	0	0	0	0	0	0
Skewness	-.564	-.925	-.1.024	-.746	-.555	-.733	-.1.765	-.1.311	-.1.127	.213
Std. Error of Skewness	.167	.167	.167	.167	.167	.167	.167	.167	.167	.167
Kurtosis	-.600	.005	.627	.748	-.299	.448	3.811	2.195	1.519	1.510
Std. Error of Kurtosis	.333	.333	.333	.333	.333	.333	.333	.333	.333	.333

**Appendix L**  
*Mean Test*

	TR	TA	TP	TC	TF	PI	PA	TM	STCM	PG
Valid	212	212	212	212	212	212	212	212	212	212
Missing	0	0	0	0	0	0	0	0	0	0
Mean	3.36	3.58	3.66	3.46	3.39	3.47	3.92	3.56	3.55	3.04
Std. Deviation	1.002	1.061	.885	.786	.907	.764	.753	.686	.695	.588
Minimum	1	1	1	1	1	1	1	1	1	1
Maximum	5	5	5	5	5	5	5	5	5	5

