

Available online at www.sciencedirect.com**ScienceDirect**

Procedia Economics and Finance 7 (2013) 205 – 212

Procedia
Economics and Finance

www.elsevier.com/locate/procedia

International Conference on Economics and Business Research 2013 (ICEBR 2013)

Determinants of Tax Evasion on Imported Vehicles

Misman Miskam^{a*}, Rohaya Md Noor^b, Normah Omar^c and Rozainun Abd Aziz^d^{a,b,c} Faculty of Accountancy & Accounting Research Institute, Universiti Teknologi Mara, Shah Alam, Selangor, 40150, Malaysia.^d Faculty of Accountancy, Universiti Teknologi Mara, Shah Alam, Selangor, 40150, Malaysia.

Abstract

The importance of taxation as a major public finance to developed and developing countries is non-debatable. The issue of smuggling activities related to the indirect taxation had caused a great lost to the government not only in term of monetary aspect, but also non-monetary aspects such as quotas, embargo and product quality. However, the study of a tax evasion and smuggling activities in the indirect taxation have received less attention among the researchers and legislators. Hence, the current study aims to examine factors affecting the tax evasion on excise duties for importation of vehicles that can be associated with smuggling activities in Malaysia. The study has indentified several potential determinants related to tax evasion on imported vehicles, such as the tax rate, penalty structure, the car's brand and size of the business of car importers. To achieve the objectives, this study used sample data from vehicles smuggling cases investigated by the tax authorities in Malaysia. The hypotheses were tested using both univariate and multivariate statistical methods. The statistical results provided evidence on the significant values of evaded excise duties, whereby the excise duties and penalty rates are the contributing factors for the tax evasion in vehicles smuggling activities. Hence, this study contributes towards the body of literature in the discussed area and also provides strategic information to the policymakers in reviewing the tax policy related to excise duties on imported vehicles in the future.

© 2013 The Authors. Published by Elsevier B.V. Open access under [CC BY-NC-ND license](https://creativecommons.org/licenses/by-nc-nd/4.0/).
Selection and peer-review under responsibility of ICEBR 2013

Keywords: Tax evasion; excise duties; imported vehicles; tax authorities and smuggling activities.

1. Introduction

Tax has always been an important and crucial tool for the government administration in most developed and developing countries. The economists believe that tax not only generate revenue for the public finance but

* Corresponding author.

Email address: misman.miskam@customs.gov.my

also as an income re-distribution of the rich to the poor (Saez, 2004). The principle of economic welfare applies in the tax system, whereby the government finances its expenditure by imposing charges and levies on citizens and corporate entities (Businessdictionary.com, 2012). In Malaysia, the evolution of the taxation system had emerged rapidly from indirect taxes (in 1970s) to the direct taxes (in 1990s) in order to achieve income re-distribution objective. However, in the recent government transformation programme (GTP), Malaysia would reemphasize on indirect tax system, such as good and service tax (GST) that is a broad based tax to increase the tax revenue.

A good tax system should comprise of principles such as efficiency, fairness and equity, as well as neutrality principles. However, it is very difficult to achieve all the principles. For example, to achieve the principle of fairness and equity, the tax system would a certain extent need to forgo the neutrality principle. Hence, as a result the tax non-compliance and evasion occurs, whereby the dishonest person would try to avoid or reduce their tax liabilities through illegal means.

Watrin and Ullmann, 2008, reported that tax evasion is rampant in both direct and indirect taxes. The tax gap is normally associated with the tax evasion. The tax gap is the difference between amounts of income that should be legally reported and the actual of amount reported to the tax authority. The tax evasion in indirect taxes is always associated with smuggling activity or tax evasion on customs tariff. The customs tariff includes the import or export of products by unauthorized means and evading the customs duties through various ways such as conducting under-invoicing and mis-declaration of goods during import or export. The smuggling activities has caused the government losses not only in monetary revenue but also non-monetary controlling like quotas, embargo and product quality (Stephen *et al.*, 1991).

The issues of tax evasion on customs tariff and smuggling activities have received less attention from researchers and legislators (Delipalla, 2009). Prior studies only focused on service tax evasion (Rohaya and Ezdiani, 2011) and tax planning on corporate income taxation (Md. Noor *et al.*, 2008). Therefore, the current study aims to examine the tax gap and factors affecting the tax evasion on excise duties for importation of vehicles that can be associated with smuggling activities in Malaysia. The findings of this study will give a significant contribution to the relevant authorities about the tax evasion issues in indirect tax system and its potential determinants that contribute to the problem. Furthermore, this study is vital as it will provide strategic information to the legislators and most importantly, establish empirical evidence on excise duty evasion in Malaysia.

2. Literature Review

2.1. Malaysian taxation system

The Malaysian taxation system comprised of direct and indirect taxes. The direct taxes are administered by the Inland Revenue Board of Malaysia (IRBM), meanwhile the indirect taxes are administered by the Royal Malaysian Customs Department (RMCD). The direct taxes include company tax, individual tax, cooperative tax which is governed under Income Tax Act 1967; petroleum tax under the Petroleum Tax Act 1967. The indirect taxes include customs duties, excise duties, sales tax and service tax. Customs duties are duties levied on goods being imported or exported and classified into two: import duties and export duties. Customs duties are levied under the Customs Duties Order 2012, which is governed by the Customs Act 1967. The government's indirect taxation policies will affect the price of the products and services and subsequently will also affect consumers purchasing decision (Hussain and Naheed, 2005). However, the free trade agreement, trade liberalization and globalization had caused the government to abolish, reduce or exempt the tariff rates for many goods and products (Gunasegaram, 2012). This is in line with the requirement of the agreement and understanding to eliminate the tariff and no-tariff barrier in international trade.

2.2. Excise duties

Excise duties have been the biggest contributor to the indirect taxes components. For example in 2012, excise duties contribute 6 per cent of the total government revenue. The excise duties are levied on selected products manufactured locally or imported into Malaysia as prescribed in Section 6 of Excise Act 1976. The excise duty is calculated either by *specific* rates or *ad valorem* rates from the sales values or quantity of the goods or products (Excise Duty Order 2004). The excise duty is a mechanism to modify public consumption pattern or social engineering (Delipalla, 2009). The high excise duty imposed by the government of Malaysia is to discourage the public from purchasing or consuming unhealthy products or other unhealthy habits like cigarettes, tobacco, alcohol, gambling or prostitution. Economists said, excise duties are sin tax, where the government imposed taxes on such products or services as a public responsibility (Hoe, 2010).

2.3. Tax evasion

Tax evasion can be defined as an illegal practice where by any taxable persons intentionally avoid paying their true tax liabilities, thus tax evaders are liable for criminal charges (Engel *et al.*, 1999; Manasan, 1988). The issue of tax evasion had become a major concern at the national and international level. Issues of non-compliance became important when it damaged the tax collection system and went against the government's efforts to increase public revenue collection (Franzoni, 1998; Van and Arndt, 2009). The substantial difference in prices between two different jurisdictions made smuggling economically profitable (Pitt, 1981).

The smuggling of goods or products can be considered as one of tax violations that attack a country's tax system (Selimaek, 2005). Smuggling is a punishable offence that is justified in order to deter tax evasion practices and to ensure government revenue collections. The main objective of smuggling is to avoid the tariff and non-tariff barriers and it involves monetary and non-monetary benefits to the smuggler (Buehn and Farzanegan, 2011). There are three types of smuggling activities: 1) Falsely declaring the value, such as lower priced and under quantity; 2) Falsely declaring the nature of the goods (mis-classification); and 3) Under-assessing goods' value at a level lower than legally applicable (Cooper, 1974). The common customs fraud and smuggling schemes are: over and under valuation, over and under shipment, mis-classification on tariff code, double invoicing, false invoicing and complex trade approach (Thanasegaran and Shanmugam, 2007). In the Malaysian context, indirect taxes can be evaded through a number of ways, such as producing fallacious declarations, customs fraud or smuggling. Therefore, the first hypothesis is formulated as follows:

H_1 : There is a significant difference between declared excise duty and actual excise duty values.

2.4. Determinants of excise duty evasion

Allingham and Sandmo, 1972, found a positive relationship between tax rates and tax evasion. However, it is dependent on particular assumptions of risk aversion and the punishment for evading. Another study by Clotfelter, 1983, disclosed that higher tax rates tend to encourage tax evasion. Fisman and Wei, 2004, examined specific tax rates for products in China (tariff plus value-added tax VAT rates), and found that tax evasion gap was highly correlated with the tax rates imposed by the country, thus confirming a higher tax loss for products with higher tax rates. Ali *et al.*, 2001, and Nur-tegin, 2008, discovered a positive relationship between tax rates and tax evasion. Accordingly, Nejad, 2011 reported that the smuggling of goods was induced by the tax rates, concluded that higher tax rates would cause a higher tax evasion through smuggling activities. Therefore, the second hypothesis is stated as follows:

H_{2a} : The excise duty rate is positively related to the excise duty evasion.

Allingham *et al.*, 1972, explained factors that influenced taxpayers' behaviour such as risk of audit and

penalties for detection of non-compliance. They found that a significant relationship between penalty rate and probability of detection which implied that the tax penalties would deter a person from evading taxes. Bork and Berlin, 2003, also confirmed that higher penalty rates would reduce the tax evasion. The importation of cars into Malaysia is required to pay duties and fulfil the import permit requirements. Therefore, failure to comply with these requirements is an offence and will be subjected to penalty. Thus, the current study has formulated the following hypothesis:

H_{2b} : The rate of penalty is negatively related to the excise duty evasion.

The high price of luxury items or branded goods has resulted in higher rates of smuggling into a country (Green, 1977). Goel, 2008, said that a substantial price difference across different jurisdictions was also a factor for smuggling, especially for luxury items. The prices for imported and luxury cars in Malaysia are substantially high compared to the other developing countries (Europol Report 2004, 2005 & 2006; Gerber and Killias, 2003). The higher price of imported cars is commonly due to higher tax rates and processing fees. A product's brand name remains very important in the commercial world. This is because nowadays, such prestigious brands have become a highly demand products which can be associated with a high level in society, self-prestige, quality and a source of self-satisfaction to the customers (Thanasuta *et al.*, 2009). Therefore, the following hypothesis is as follows:

H_{2c} : The brand of a car is positively related to the excise duty evasion.

The political cost theory stated that the larger size company would have higher tax payments due to higher income and have more advantage in terms of internal control and resources (Gupta and Newberry, 1997). Kenyon, 2008 disclosed that smaller sized firms possessed the highest degree of under-reporting. In addition, Hanlon *et al.*, 2005, found that larger firms with more complex operations had more tendencies for tax non-compliance. Based on such facts, it can be said that there is a relationship between the size of the company and tax evasion. Therefore, the next hypothesis is stated as follows:

H_{2d} : The size of a company is negatively related to the excise duty evasion.

3. The Methodology and Model

The sources of data for this study are gathered from several departments and government agencies such as the Royal Malaysian Customs Department (RMCD), the Ministry of Finance (MOF), the Malaysian International Trade and Industry (MITI), the Statistical Department of Malaysia and the Malaysian Automotive Association (MAA). The sample comprised of 106 completed cases that were involved in excise duty evasion for importation of passenger cars into Malaysia for the years 2009 to 2011. The regression model is estimated to examine the factors that may influence the excise duty evasion as follows:

$$TAXEVASION = \beta_0 + \beta_1TAXRATE + \beta_2PENALTY + \beta_3BRAND + \beta_4SIZE + e \quad (1)$$

The dependent variable is the excise duty evasion (TAXEVASION) which is the amount of declared tax by the consignee during importation scaled by the actual taxes assessed by tax authorities. There are four independent variables. The first independent variable is tax rate denoted as $\beta_1TAXRATE$, the tax rate applies for the respective car smuggling cases. Second, the amount of penalty, denoted as $\beta_2PENALTY$, and is measured as natural log of penalty. Third, the brand of a car, denoted as β_3BRAND , dummy variable that is continental car is 1 and non-continental car is 0. Fourth, the size of the company denoted as β_4SIZE , measured as natural log of full time employees. β_0 is the intercept or constant.

4. Findings and Analyses

4.1. Descriptive Statistics

Table 1 below provides the descriptive statistics for the dependent and independent variables used in the model analysis. The descriptive statistics shows that the mean for TAXEVASION is 0.81, with standard deviation of 0.08, the minimum and maximum values for TAXEVASION are 0.63 and 0.98 respectively. The mean of 0.81 indicates that car importers have evaded about 81 per cent of the tax related to the smuggling of cars. Table 1 also provides descriptive statistics the independent variables. Firstly, the mean of TAXRATE is 1.30 which implies that the tax rate which applies to the smuggled car is 130 per cent. The standard deviation is 0.09, the minimum and maximum values are 1.15 and 1.45 respectively. Secondly, the statistic shows that the mean for PENALTY is 5.13, standard deviation is 0.37, while the minimum and maximum values are 4.22 and 6.04 respectively. Thirdly, the mean for the BRAND is 0.24, which indicates that majority of the smuggling cases involved non continental cars. Finally, the descriptive statistics provide that the mean for SIZE is 25.57, standard deviation is 11.17, and the minimum and maximum of the SIZE are 10 and 42 respectively. The statistical results indicate that the importers or consignees that were involved in the car smuggling activities fall under the small and medium size enterprises (SMEs).

Table 1. Descriptive statistics

Variables N = 106	Mean	Std. Deviation	Minimum	Maximum
EVASION	0.81	0.08	0.63	0.98
TAXRATE	1.30	0.09	1.15	1.45
PENALTY	5.13	0.37	4.22	6.04
BRAND	0.24	0.43	0.00	1.00
SIZE	25.57	11.17	10.00	42.00

4.2. Univariate Analysis

Table 2 shows the result of paired-sample *t*-test for declared excise duties and actual excise duties for car importation smuggling cases. The objective is to test whether there is a significant gap between the excise duties declared by the car importers and excise duties computed by the tax authorities. The paired-sample *t*-test result shows that there is a significant difference between the mean of declared excise duties and actual excise duties at 1 per cent significance level, *t*-value -11.397, *p*-value 0.000. The result is further supported by the Wilcoxon-Signed Rank test. Therefore, the statistical results have supported hypothesis H_1 that there is a significant difference between declared excise duty and actual excise duty values. The findings indicate that the existence of a tax gap in excise duties for the importation of cars is due to smuggling activities.

Table 2. Mean Comparison between declared and actual values of Excise Duty

Excise Duty	Paired-sample <i>t</i> -Test		Wilcoxon-Signed Rank	
	<i>t</i> -statistic	<i>P</i> -value	<i>Z</i> -statistic	<i>P</i> -value
	-11.397	0.000***	-8.943	0.000***

Note: *** Significant at 0.01 level

4.3. Multiple regression results

The multiple regression results in Table 3 shows that the tax evasion model is statistically significant at 1 per cent level with the adjusted R -squared of 50.7 per cent, F -value 27.953, p -value 0.000. Thus, the multiple regression result indicates that 50.7 per cent of the variation in the excise duty evasion can be explained by the overall explanatory variables. The statistical results provide evidence of a significant and positive relationship between TAXRATE and TAXEVASION at 1 per cent level, coefficient-value 0.213, t -value 3.374, p -value 0.001. Thus, the statistical result has supported hypotheses H_{2a} that the excise duty rate is positively related to the excise duty evasion. The finding indicates that imported cars with higher excise duties would enhance the smuggling of these cars. Table 3 also shows that PENALTY is significantly and negatively associated with TAXEVASION at 1 per cent level (coefficient-value -0.169, t -value -7.484, p -value 0.000). Hence, the statistical result has supported hypothesis H_{2b} that the rate of penalty is negatively related to the excise duty evasion. The finding implies that heavy penalty rate imposed by the tax authority would deter the smuggling of the imported cars activities.

However, the statistical results do not provide significant results on the relationship between BRAND and TAXEVASION, as well as, on the relationship between SIZE and TAXEVASION. Hence, the findings of this study have not supported hypothesis H_{2c} that the brand of a car is positively related to the excise duty evasion; and hypothesis H_{2d} that the size of a company is negatively related to the excise duty evasion. The finding implies that there is insufficient evidence to conclude that the brand of a car and the size of a company influenced the imported car smuggling activities.

Table 3. Multiple regression results

Variable	Coefficients	t -statistic	P -value
Constant (β_0)	1.401	9.160	.000***
TAXRATE (β_1)	.213	3.374	.001***
PENALTY (β_2)	-.169	-7.484	.000***
BRAND (β_3)	.018	1.273	.206
SIZE (β_4)	.000	-.435	.665
R^2	0.525		
Adjusted R^2	0.507		
F -statistic (P -value)	27.953 (0.000)***		
Durbin Watson	1.547		
N	106		

Note: *** Correlation is significant at the 0.01 level.

5. Summary and Conclusions

This study examined the tax gap in the indirect taxation with particular emphasis on excise duties of imported vehicles. The tax gap is measured as the difference between the excise duties declared by the car importers and the actual values computed by the tax authorities. Furthermore, the current study has developed a tax evasion model to examine factors that can be associated with the smuggling of the imported vehicles. The determinant factors have been identified based on tax evasion literature and action research. The determinant factors of tax evasion in excise duties are the tax rate, amount of penalty, the brand of a car, and the size of a company. The sample was collected from a special audit report on the importation documents and customs declaration forms for the years 2009 to 2011.

The statistical results provide evidence on the significant difference between declared excise duties and actual excise duties, thus confirming the existence of the tax gap in the tax system related to importation of vehicles. The findings also show that the tax structure and penalty rates are the contributing factors for the tax evasion on vehicles smuggling activities. Nevertheless, a car's brand and the size of the car importers'

business do not provide an explanation for the tax evasion. Hence, this study has contributed towards the body of literature in the discussed areas and also provides strategic information to the policymakers in reviewing the tax policy related to excise duties on imported vehicles in the future.

Acknowledgment

The authors would like to convey their appreciation to the Ministry of Higher Education for providing a research grant to undertake this project. Appreciation also goes to the Faculty of Accountancy, Accounting Research Institute (ARI), and Research Management Institute (RMI) for their support in the study.

References

- Allingham, M.G., and Sandmo, A., 1972. Income Tax evasion: A Theoretical Analysis. *Journal of Public Economics* 1, pp. 323-338.
- Ali, M.M., Cecil, H.W., and Knoblett, J.A., 2001. The Effects of Tax Rates and Enforcement Policies on Taxpayer Compliance: A Study of Self-Employed Taxpayers. *Atlantic Economic Journal*, 29 (2), pp. 186-202.
- Borck, R. and Berlin, DIW., 2003. Income Tax Evasion and the Penalty Structure. JEL classification: H26, D72, D73.
- Buehn, A. and Farzanegan, M.R., 2011. Smuggling around the world: Evidence from a structural equation model. *Journal of Applied Economics*, pp. 1-50.
- Businessdictionary.com. Available at: <http://www.businessdictionary.com/>. Accessed on 20 October 2012.
- Clotfelter, C.T., 1983. Tax Evasion and Tax Rates: An Analysis of Individual Returns. *The Review of Economics and Statistics*, vol. 65 (3). pp. 363-373.
- Cooper, R.N., 1974. Tariff and smuggling in Indonesia. In *Illegal transactions in international trade*. Amsterdam: North-Holland Publishing, pp. 183-192.
- Delipalla, S., 2009. Commodity Tax Structure and Informal Activity. *Bulletin of Economic Research*, vol. 61, pp. 283-294.
- Engel, Eduardo M. R. A. and Hines Jr., James R., 1999. Understanding Tax Evasion Dynamics, NBER Working Paper No. w6903.
- Europol 2004, 2005 & 2006. European Union organised crime report. Europol, Hague.
- Excise Duty Order 2004.
- Fisman, R., and Wei, S.J., 2004. Tax Rates and Tax evasion: Evidence from “Missing Imports” in China. *Journal of Political Economy*, vol. 112 (2), pp. 471-496.
- Franzoni, L.A., 1998. Tax evasion and Tax Compliance. Working Paper Series. University of Bologna, Italy.
- Gerber, G. and Killias, M., 2003 The transnationalization of historically local crime: auto theft in Western Europe and Russia markets. *EUR J Crime Crim Law Crim Justice* 11 (2).
- Goel, R.K., 2008. Cigarette smuggling: price vs. nonprice incentives. *Applied Economics Letters* ISSN 1350-4851 @ 2008 Taylor and Francis.
- Green, T., 1977. *The Smuggling Business*. Cresent Books First Edition, New York. NY.
- Gunasegaram, P., 2012. The Star Online. August 04, 2012. Suffering Reduced Car Taxes. Available at Website; <http://thestar.com.my/>. Accessed on 08 October 2012.
- Gupta and Newberry, 1997. Determinants of the variability in corporate effective tax rates: Evidence from longitudinal data. *Journal of Accounting and Public Policy*. Vol. 16, Issues 1, pp. 1-34.
- Hanlon, M., Mills, L., and Slemrod, J., 2005. An Empirical Examination on Corporate Tax Noncompliance. Revised Draft.

- Hoe, K.B., 2010. The Star. January 19, 2010. The Role of Excise As A Sin Tax. Available at: <http://thestar.com.my>. Accessed on the 08 October 2012.
- Hussain, I. and Naheed, K., 2005. The effect of Indirect Taxation on the Manufacturing Sector of Pakistan: A Case Study of Shoes Industry, *Gomal Universiti Journal of Research*, vol. 5, pp. 23-42.
- Kenyon, T., 2008. Tax evasion, Disclosure, and Participants in Financial Markets: Evidence from Brazilian Firms. *World Development*, Vol. 36, Issues 11, pp. 2512-2525.
- Manasan, R. G., 1988. Tax evasion in the Phillipines 1981-1985. *Journal of Phillipine Development*, 15(2), pp. 167-190.
- Mohd. Noor, R., Mastuki, N., & Bardai, B., 2008. Corporate Effective Tax Rates: A Study on Malaysian Public Listed Companies. *Malaysian Accounting Review*, 7 (1), pp. 1-20.
- Nejad, M.S., 2011. Scientific Paper Suggestion about goods and currency smuggling phenomenon In view of Iran economic rights *International Journal of Business and Social Science*, Vol. 2 No. 9.
- Nur-tegin, 2008. Determinants of Business Tax Compliance. *The BE Journal of Economic Analysis and Policy*, Vol. 8, Issues 1.
- Pitt, M.M., 1981. The measurement and sources of technical inefficiency in the Indonesia weaving industry. *Journal of development economics*. Vol. 9 Issues 1, pp. 43-64.
- Rohaya, M.N., and Ezdiani, M.D., 2011. Factors Influencing Service Tax Evasion. *Proceeding of 2011 International Conference on Financial Criminology*, Pullman Putrajaya Lakeside, Kuala Lumpur. By 8-9 June 2011.
- Saez, E., 2004. Direct or indirect tax instruments for redistribution: short-run versus long-run., *Journal of Public Economics*, 88, pp. 503-518.
- Selimaek, L., 2005. The penalisation of tax violations and criminal tax offences in Slovenian law, *Journal of Money Laundering Control*, Vol. 8 Iss:2 pp. 173-177.
- Stephen A. R., Boddewyn, J.J. and Sproul S.R., 1991. International Smuggling: Environmental Factors and Corporate Implications. 4 *IJCM* Vol. 1, No. 1 and 2.
- Thanasegaran, H., and Shanmugam, B., 2007. International trade-based money laundering: the Malaysian perspective. *Journal of Money Laundering Control*. Vol. 10 No . 4, pp. 429-437.
- Thanasuta, K., Patoomsuwan, T., Chaimahawong, V. and Chiaravutthi, Y., 2009, Brand and country of origin valuations of automobiles, *Asia Pacific Journal of Marketing and Logistics*, Vol. 21, Iss: 3 pp. 355 – 375.
- Van D.J.E and Arndt C., 2009. Estimating Border Tax Evasion in Mozambique, *Journal of Development Studies*, Vol. 45, No 6, pp. 1010-1025.
- Watrin, C., and Ullmann, R., 2008. Comparing Direct and Indirect Taxation: The Influence of Framing on Tax Compliance, *The European Journal of Comparative Economics*, 5 (1), pp. 23-56.