

CAUSES AND EFFECTS OF TAX EVASION IN GHANA

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ABSTRACT

The incidence of tax evasion/avoidance has become one of the major challenges affecting revenue generation in many countries, especially in developing and emerging economies like Ghana. This study aims to examine the causes and effects of tax evasion and tax avoidance in the Sekondi-Takoradi Metropolitan Assembly of the Western Region of The Republic of Ghana. The main objectives are: (i) analyse the causes of tax evasion/avoidance; (ii) analyse the effects of tax evasion/avoidance, according to the point of view of small business owners. The data was collected using a structured questionnaire. The final sample size is based on 97 taxable persons and businesses. According to our findings, the retail sector is more prone to tax evasion; females behave differently from males. In relation to cause and effects, education and marital status are the main differences, as stated by the respondents' opinion.

Keywords: *Ghana, tax evasion, tax rate, income, education*

1. INTRODUCTION

The development of every economy in the modern world largely depends on tax revenues from taxable entities and individuals. However, tax evasion has existed for over two thousand five hundred years ago. At that time Plato on writing about tax evasion mentioned that Ducal palace of Venice had a hole through which it received information on people who evaded taxes. Fjeldstad (2006) posited that during the third century BC in India, the state craft arthashastra advised the kings of Mauryan to take good care of the state revenues otherwise be misappropriated by the people for self gains. The Global Financial Integrity (GFI) estimated that African countries lost US\$854 billion in cumulative capital flight by way of tax evasion and avoidance between 1970 – 2008 (Germany Federal Ministry for Economic Cooperation and Development, 2010). Ghana economy is also strongly affected by tax evasion. Therefore, the aim of this study is to analyse the causes and the effects of tax evasion in the point of view of small businesses owners. Based on the tax evasion literature we have identified the main factors that might causes tax evasion. In terms of methodology, we prepared a questionnaire to obtain the data needed; next using appropriate statistics methods we achieved the results. The results discussion allowed us to reach the conclusions about the causes and the effects of Ghana tax evasion issues. This work is structured as follows: we present a brief literature review after this introduction. Next, we explain the methodology used in the study, mainly, the sample and the methods used. Finally, after the discussion of the results we present the main findings.

2. LITERATURE REVIEW

The 21st Century truly poses a higher tax evasion challenge and has negatively affected developing countries like Ghana. This does not only result in a deficit in revenue targets but also a stale in economic development. A similar study in Tanzania on tax evasion shows a rampant adverse effect on almost all sectors of the Tanzanian economy (Wadhawan, 1998). Wadhawan's study is corroborated by a ESRF (2010) study which estimates a 35 – 55 percent range of tax evasion on total revenue in the informal sector. As entities and individuals consciously decide to avoid or evade tax in order to reduce their tax obligations an attempt to analyse the impact of “tax evasion” is prudent if a state or government wants to improve its tax revenues for development. According to a study by Manamba (2013) the incidence of tax evasion has become rampant as a result of low salaries to revenue collection agents/officials, lack of incentives, high tax rate schedule, among others. Tax is a compulsory collection of money by a public authority for public purposes (Soyode and Kajola, 2006). According to Altus Directory, (2006 – 2010) the reasons for taxation can be classified as follows: *revenue* - Government's revenues largely depend on the taxpayer's contribution which is used in the provision of quality educational systems, social amenities such as hospitals, clinics as well as infrastructure like roads among others.

- *redistribution* - This purpose of taxation aims at an effective and appropriate distribution of economic wealth among all sections of walk-of-life, both the affluent and not so well off in society. Even though, very debatable and arguable, Redistribution is a common practice among democratic economies but varies in ways and proportion of application among countries.
- *reprising* - The reason for this taxation aims at addressing certain externalities suffered by society due to some actions of industries. For instance if we look at the sources of the threats to society through global warming, it is clear that it is as a result of the emission of toxic carbons from industries, among others. Various activists and governments, therefore, suggest the imposition of such tax on industries. As mentioned in the introduction of this study about tax evasion, Jackson and Milliron (1986) identified fourteen (14) vital determinants of tax evasion. They included: complexity, fairness, revenue initiated contact, compliant peers and tax morale or ethics (i.e. ‘behavioural’ determinants), gender, age, education and occupation status (i.e. ‘demographic’ determinants) and income level, income source, marginal tax rates, sanctions and probability of detection (i.e. ‘economic’ determinant). Richardson (2006) also identified other significant tax evasion determinants as tax morale, income source, education and fairness to buttress earlier studies by Jackson and Milliron. The most pertinent question of why people evade and avoid tax could be ‘attempted’ by taking a cursory look into the major determinants of tax evasion as identified by Jackson and Milliron (1986) and Richardson (2006). Ten (10) key variables of Jackson and Milliron's (1986) findings need more emphasis in future studies. The study will dwell largely on the fourteen (14) vital determinants of tax evasion by Jackson and Milliron (1986).

For instance, Stamatopoulos, et al., (2015) argued that people become more conscious and responsible in honouring their tax obligations when they are educated about the usefulness of tax as against the uneducated. The study outcome corroborated Ibadin and Eiya's study in Nigeria which showed a significant relationship (at 5% level) between education level and tax compliance, that the higher one's education the more compliant one becomes (Ibadin and Eiya, 2013). Oremadu and Ndulue (2011) argued in their study on the self-employed in Nigeria found to be evading tax that low education levels affect tax payment. Kriz, et al., (2007) also confirmed this relationship in the Estonian case.

On tax rate, the Federal Germany Ministry for Economic Cooperation and Development (2010) study on tax evasion and avoidance in developing countries confirmed that when tax rates are high disposable income reduces therefore inducing people to evade tax. A study in the Temeke municipality in Tanzania on tax evasion by Stephen (2014) resulted in 34% (the highest) respondents tracing the cause to high tax rates. The OECD (2013) report paints a positive picture about how education transforms people to put aside their personal interest and look at the bigger picture by paying taxes to contribute their quota towards revenue mobilization for development by the government. Rutasitara, et al., (2010) also underscored the importance of tax education in their study. They argue that tax education does not only make people understand why they pay tax, but it also gives them the mathematical understanding of their tax rates and the need to pay tax frequently and promptly. Other studies have been done in the area of high tax rates and tax evasion and avoidance and the results have largely been that where the tax rates are high the probability of tax evasion and tax avoidance is also very high. The phenomenon is quite common in developing economies.

3. DATA AND METHODS

As previously mentioned, the main general objective of the study is to analyse causes and effects concerning tax evasion in Sekondi-Takoradi Metropolitan Assembly of the Western Region of The Republic of Ghana. Next, we explain the data and methods used.

3.1. Data collection analysis

The final sample size of ninety-seven (97) respondents from the Sekondi-Takoradi Metropolitan Assembly of the Western Region of The Republic of Ghana. The study adopted a self-completed questionnaire (using Likert scale) as the main tool for collecting primary data. The self-completed questionnaires were administered by hand to selected respondents and later collected. The study employed descriptive statistics and tests to analyse data, and the results are presented in charts and tables in the subsequent pages.

3.2. Objectives and hypothesis

The next table provides information about the objectives and the hypothesis.

Table 1: Objectives and Hypotheses

Label	Objectives or Research Hypotheses	Technique
O ₁	Identify the <i>age bands</i> with more propensity to <i>tax evasion</i>	Mean and Standard deviation. Frequency tables.
O ₂	Identify the <i>marital status</i> with more propensity to <i>tax evasion</i>	Mean and Standard deviation. Frequency tables.
O ₃	Identify the <i>type of business</i> with more propensity to <i>tax evasion</i>	Mean and Standard deviation. Frequency tables.
O ₄	Identify the <i>years in business</i> with more propensity to <i>tax evasion</i>	Mean and Standard deviation. Frequency tables.
H ₁	There is an association between variables <i>gender</i> and <i>tax evasion</i>	Chi-Square test
H ₂	There is an association between variables <i>education</i> and <i>tax evasion</i>	Chi-Square test
H ₃	There is an association between <i>number of employees</i> and <i>tax evasion</i>	Chi-Square test
H ₄	There are differences by <i>gender</i> regarding <i>causes and effects</i> of tax evasion	Student t-test
H ₅	There are differences between the <i>age bands</i> regarding <i>causes and effects</i> of tax evasion	kruskal-Wallis
H ₆	There are differences between the <i>education</i> regarding <i>causes and effects</i> of tax evasion	kruskal-Wallis
H ₇	There are differences between the <i>marital status</i> regarding <i>causes and effects</i> of tax evasion	kruskal-Wallis
H ₈	There are differences between the <i>type of businesses</i> regarding <i>causes and effects</i> of tax evasion	kruskal-Wallis
H ₉	There are differences between <i>years in business</i> regarding <i>causes and effects</i> of tax evasion	Student t-test
H ₁₀	There are differences between <i>number of employees</i> regarding <i>causes and effects</i> of tax evasion	kruskal-Wallis

4. RESULTS AND DISCUSSION

4.1. Taxpayers profile

The next table shows the respondents' profile. According to the data collected, the total number of respondents is 97; two-thirds of the respondents are males, and one-third are females. In terms of age bands, 44,30% of the respondents have in between 31 and 35 years old. Regarding the education level, 42,3% hold a secondary/technical degree, 20,6% have a tertiary degree; 23,7% declare another education background. There are 13,4% with no educational background.

Table 2: Profile of respondents

	N	%
Gender		
Male	64	66,0
Female	33	34,0
Total	97	100,0
Age		
Below 25	4	4,1
26-30	11	11,3
31-35	43	44,3
36-40	25	25,8
Above 41	14	14,4
Total	97	100,0
Educational background		
Secondary/Technical	41	42,3
Tertiary	20	20,6
No Education	13	13,4
Other	23	23,7
Total	97	100,0
Marital status		
Single	24	24,7
Married	61	62,9
Divorced	10	10,3
Other	2	2,1
Total	97	100,0
Type of business		
Manufacturing	2	2,1
Service	17	17,5
Distribution	16	16,5
Retailing	57	58,8
Other	5	5,2
Total	97	100,0

Regarding marital status, the majority is married – 62,9%, 24,7% are single and 10,3% are divorced. To ascertain the types of business the respondents engaged in the following was adduced. 2,1% are in manufacturing, 17,5% in services. 16,5% are into distribution whilst 58,8%, are in the retailing of goods. The conclusion can be made that more than half of the population surveyed are into retailing.

4.1.1. Gender and age

Four out of the 97 respondents were below the age of 25 years, made up of 50% male and female apiece. Eleven respondents fell between the ages of 26 – 30 years. 81,8% and 18,2% were male and female, respectively. 62,8% male and 37,2% female of 11 respondents out of the total 97 were between the ages of 31 – 35 years. In the 36 – 40 years age range, 25 respondents out of 97 were 68,0% male and 32,0% female. Fourteen (14) out of the 97 respondents made up of 64,3% male and 35,7% female were above 41 years.

Table 3: Gender vs. age

		Gender		Total
		Male	Female	
Below 25	N	2	2	4
	% Age	50,0%	50,0%	100,0%
	% Gender	3,1%	6,1%	4,1%
	% of Total	2,1%	2,1%	4,1%
26-30	N	9	2	11
	% Age	81,8%	18,2%	100,0%
	% Gender	14,1%	6,1%	11,3%
	% of Total	9,3%	2,1%	11,3%
31-35	n	27	16	43
	% Age	62,8%	37,2%	100,0%
	% Gender	42,2%	48,5%	44,3%
	% of Total	27,8%	16,5%	44,3%
36-40	n	17	8	25
	% Age	68,0%	32,0%	100,0%
	% Gender	26,6%	24,2%	25,8%
	% of Total	17,5%	8,2%	25,8%
Above 41	n	9	5	14
	% Age	64,3%	35,7%	100,0%
	% Gender	14,1%	15,2%	14,4%
	% of Total	9,3%	5,2%	14,4%
Total	n	64	33	97
	% Age	66,0%	34,0%	100,0%
	% Gender	100,0%	100,0%	100,0%
	% of Total	66,0%	34,0%	100,0%

4.1.2. Business and education

Forty-One out of the 97 respondents made up of 4,9% in manufacturing, 14,6% in service, 9,8% in distribution, 68,3% in retailing and 2,4% in the other business categories had Secondary/Technical education. The Tertiary education saw twenty respondents made up of 15,0% apiece in service and distribution and 70,0% in retailing. For No Education category of respondents, 23,1% were into service, 7,7% into distribution and 69,2% into retailing. Twenty-three respondents out of the 97 made up of 21,7%, 34,8%, 26,1% and 17,4% in the business of service, distribution, retailing and others, respectively, had some other forms of education.

Table following on the next page

Table 4: Business vs. education

		Type of business				
		Manufacturing	Service	Distribution	Retailing	Other
Secondary/Technical	n	2	6	4	28	1
	% educational background	4,9%	14,6%	9,8%	68,3%	2,4%
	% Type of business	100,0%	35,3%	25,0%	49,1%	20,0%
	% of Total	2,1%	6,2%	4,1%	28,9%	1,0%
Tertiary	n	0	3	3	14	0
	% educational background	0,0%	15,0%	15,0%	70,0%	0,0%
	% Type of business	0,0%	17,6%	18,8%	24,6%	0,0%
	% of Total	0,0%	3,1%	3,1%	14,4%	0,0%
No Education	n	0	3	1	9	0
	% educational background	0,0%	23,1%	7,7%	69,2%	0,0%
	% Type of business	0,0%	17,6%	6,3%	15,8%	0,0%
	% of Total	0,0%	3,1%	1,0%	9,3%	0,0%
Other	n	0	5	8	6	4
	% educational background	0,0%	21,7%	34,8%	26,1%	17,4%
	% Type of business	0,0%	29,4%	50,0%	10,5%	80,0%
	% of Total	0,0%	5,2%	8,2%	6,2%	4,1%
Total	n	2	17	16	57	5
	% educational background	2,1%	17,5%	16,5%	58,8%	5,2%
	% Type of business	100,0%	100,0%	100,0%	100,0%	100,0%
	% of Total	2,1%	17,5%	16,5%	58,8%	5,2%

4.2. Descriptive Statistics Analysis

4.2.1. Profile and tax evasion

According to the respondents we present some pertinent issues concerning profile characteristics and tax evasion in the past - question 16A “have you evaded tax before”. Globally 30% of the people declared that had evaded tax before, 42% declared that never evade tax before and 28% are not sure.

- *Gender vs. tax evasion* - Regarding gender (66% males; 34% females) and question 16A (have you ever evade tax before), the percentage of males (29,7%) and females (30,3%) that declared had evaded tax before is similar. Therefore, at first sight the behavior seems to be analogous. On the other hand, 50% of men declared never evade tax before, contrary to females (27,3%). The “not sure” answer was higher for females (42,4%) against 20,3% of males.
- *Age vs. tax evasion* - The age band declaring had “evaded tax before” with higher percentage is 26-30 years. The lower percentage is band age 31-35 (45,5%) and below 25 (25%).
- *Education vs. tax evasion* - Concerning education and tax evasion in past, respondents with higher education levels are those that declare more evasion before: “had evaded tax before” 45% -Tertiary, 29, 3%. While respondents with no education and other show a percentage of 23,1% and 21,7%, respectively.

- *Marital status vs. tax evasion* - Divorced respondents are those that declared had “evaded tax before” - 40%. Single and married show a percentage of 33% and 27,9%, respectively.
- *Type of business vs tax evasion* - The distribution sector of shows the higher percentage of “evade tax before” - 37.5%, retailing sector 30,3%.
- *Years in Business vs. tax evasion* - The majority declares that tax evasion did not in the past (42,3%) against 29,9% of those that answered yes. Regarding “yes answers”, those that are in the business in the band of 1-5 years show the higher percentage (58,6%); “year in business” above 6 years also show a percentage of 37,9%; only the “beginners” (“years in business” lower than 1 year) seems to declare a “yes” answer with lower percentage – 3,4%.

4.2.2. Causes and effects of tax evasion

The next table shows the main descriptive statistics regarding the answers about causes (questions 1B to 16B) and effects (questions 17B to 20B) of tax evasion.

Table 5: Descriptive statistics for causes and effects of tax evasion

Statement	Strongly Agree	Agree	Neither Agree/Disagree	Disagree	Strongly Disagree	Mean	Standard Deviation
	1	2	3	4	5		
1. A large proportion of taxes is used by the government for meaningless purposes.	50	18	29	-	-	1,8	0,881
	51,5	18,6	29,9	-	-		
2. It is unfair to pay tax.	27	47	19	3	-	2,0	0,781
	28,1	49,0	19,8	3,1	-		
3. The sales tax rate (%) should be the same regardless of the business one is doing.	26	51	15	2	1	2,0	0,784
	27,4	53,7	15,8	2,1	1,1		
5. Waste and inefficiency in government is high.	64	18	15	-	-	1,5	0,752
	66,0	18,6	15,5	-	-		
6. High corruption in government.	44	24	21	6	2	2,0	1,054
	45,4	24,7	21,6	6,2	2,1		
7. Rich people should pay tax at a higher rate.	66	18	13	-	-	1,5	0,722
	68,0	18,6	13,4	-	-		
8. The Tax system is very complicated (I do not know how to calculate my own tax liability).	56	27	13	1	-	1,6	0,762
	57,7	27,8	13,4	1,0	-		
9. The amount of tax I have to pay is reasonable considering the benefits received.	25	55	12	4	1	2,0	0,803
	25,8	56,7	12,4	4,1	1,0		
10. The government provide enough information about how they use taxpayers' money.	59	24	14	-	-	1,5	0,737
	60,8	24,7	14,4	-	-		
11. Tax agents collect the right amount of tax from us.	2	25	25	19	13	3,2	1,103
	2,4	29,8	29,8	22,6	15,5		
12. There is much education on taxation.	59	17	16	3	2	1,7	0,995
	60,8	17,5	16,5	3,1	2,1		
13. A lot of people do not pay tax that is why I do not pay tax as well.	60	20	17	-	-	1,6	0,777
	61,9	20,6	17,5	-	-		
14. Government receives enough tax so it does not matter if some people evade tax.	25	44	23	4	-	2,1	0,818
	26,0	45,8	24,0	4,2	-		
15. The burden of tax is so heavy that many people are forced to evade it in order to survive.	52	28	16	1	-	1,6	0,791
	53,6	28,9	16,5	1,0	-		
16. Wealthy people evade tax more often than the poor.	54	24	18	-	-	1,6	0,785
	56,3	25,0	18,8	-	-		
17. If we do not pay taxes government would not be able to pay its workers.	62	19	16	-	-	1,5	0,765
	63,9	19,6	16,5	-	-		
18. If we do not pay taxes government would not be able to provide infrastructure.	41	44	6	1	-	1,6	0,656
	44,6	47,8	6,5	1,1	-		
19. Tax evasion would decrease government revenue.	63	19	14	1	-	1,5	0,779
	64,9	19,6	14,4	1,0	-		
20. Tax evasion causes inequality and increase the tax burden on others.	61	20	16	-	-	1,5	0,765
	62,9	20,6	16,5	-	-		
Global mean						1,8	0,816

Note: 1-Strongly disagree; 2-Disagree; 3-Neither agree nor disagree 4-Agree; 5-Strongly agree; SD-Standard Deviation

Causes of tax evasion:

- In general, people agree that the government uses a large proportion of taxes for meaningless purposes; 51.5% strongly agree and 18.6% agree, and 29.9% neither agree/disagree, respectively.
- 28.1% of the respondents strongly agree that it is unfair to pay tax whilst 49.0%, 19.8% and 3.1% agree, neither agree/disagree and disagree respectively.
- On the question of making the sales tax rate equal across board, 27.4% respondents strongly agree, 53.7% respondents agree, 15.8% neither agree/disagree, 2.1% and 1.1% respondents respectively responded disagree and strongly disagree.
- 66.0%, 18.6%, and 15.5% of the respondents respectively strongly agree and neither agree/disagree to the question of whether waste and inefficiency in government in terms of expenditure is high.
- On high corruption in government, 45.5% of respondents strongly agree, 24.7%, 21.6%, 6.2%, and 2.1% of the respondents respectively agree, neither agree/disagree, disagree and strongly disagree.
- 68.0%, 18.6%, 13.4% of the respondents strongly agree, agree and neither agree/disagree respectively to the question as to whether rich people should pay a higher tax rate.
- On whether the tax system is complicated, 57.7%, 27.8%, 13.4% and 1.0% of the respondents strongly agree, agree, neither agree/disagree and disagree, respectively.
- 25.8%, 56.7%, 12.4%, 4.1% and 1.0% of the respondents respectively strongly agree, agree, neither agree/disagree, disagree and strongly disagree on whether their tax values are reasonable or otherwise.
- On the government provision of sufficient information regarding tax expenditure, 60.8% respondents agree, 24.7% respondents agree, 14.4% respondents neither agree/disagree.
- On whether tax agents collect the right amount of taxes 2.4% respondents strongly agree, 29.8% respondents agree and neither agree/disagree, 22.5% and 15.5% respondents disagree and strongly disagree respectively.
- Whether there is much education on taxation, 60.8% of respondents strongly agree, 17.5% and 16.5% of respondents agree and neither agree/disagree, while 3.1% and 2.1% of respondents disagree and strongly disagree.
- 61.9%, 20.6%, and 17.5% of the respondents strongly agree, agree, and neither agree/disagree to whether they evade tax because many people do not pay tax.
- 26.0% strongly agree, 45.8% agree, 24.0% neither agree/disagree and 4.2% disagree to the question of the irrelevance of some people not paying tax since the government receives enough tax revenue.
- 53.6%, 28.9%, 16.5%, and 1.0% of the respondents strongly agree, agree, neither agree/disagree and disagree to higher tax burden due to tax evasion.
- On the question of wealthy people evading tax more than the poor, 56.3% strongly agree, 25.0% and 18.8% responded agree and neither agree/disagree respectively.

In the group of causes of tax evasion, the most relevant are “waste and inefficiency in government is high”, “rich people should pay at a higher rate”, “government should provide enough information about the use of the taxpayers”.

Effects of tax evasion:

- 63.9%, 19.6% and 16.5% respectively strongly agree, agree and neither agree/disagree on the question that if taxes are not paid government can not pay its workers.

- On the question of the government’s inability to provide infrastructure if taxes are not paid 44.6%, 47.8%, 6.5% and 1.1% strongly agree, agree, neither agree/disagree and disagree, respectively.
- 64.9% strongly agree, 19.6% agree, 14.4% neither agree/disagree and 1.0% disagree that tax evasion decreases government revenue.
- On the question of tax evasion causing inequality and increasing tax burden on others, 62.9% strongly agree, 20.6% agree and 16.5% neither agree/disagree.
- In the group of effects, all were equal measured by the respondents; only government “would not be able to pay infrastructure” shows a very lower mean (1,6).

4.3. Results

Considering the objectives and the hypotheses* previously stated, the evidence obtained is as follows:

Table 6: Evidence obtained

Label	Objectives or Research Hypotheses	Conclusion	
O ₁	Identify the <i>age bands</i> with more propensity for <i>tax evasion</i>	Age band with more tax evasion: 31-35 (34,5%); 36-40 (27,6%)	
O ₂	Identify the <i>marital status</i> with more propensity for <i>tax evasion</i>	From 29 respondents that declared committed tax evasion, 58,6% are married	
O ₃	Identify the <i>type of business</i> with more propensity for <i>tax evasion</i>	The activity sector with more propensity for tax evasion is the retail sector: 65,5%	
O ₄	Identify the band <i>years in business</i> with more propensity for <i>tax evasion</i>	The businesses with more propensity to tax evasion are business established within 1 to 5 years (58,6%)	
		p-value	Conclusion
H ₁	There is an association between variables <i>gender</i> and <i>tax evasion</i>	$\rho=0,039$	Corroborated
H ₂	There is an association between variables <i>education</i> and <i>tax evasion</i>	$\rho=0,135$	Not corroborated
H ₃	There is an association between <i>number of employees</i> and <i>tax evasion</i>	$\rho=0,693$	Not corroborated
H ₄	There are differences by <i>gender</i> regarding <i>causes</i> and <i>effects</i> of tax evasion	$\rho=0,148$; $\rho=0,867$	Not corroborated
H ₅	There are differences between the <i>age bands</i> regarding <i>causes</i> and <i>effects</i> of tax evasion	$\rho=0,496$; $\rho=0,031$	Not corroborated; Corroborated
H ₆	There are differences between the <i>education</i> regarding <i>causes</i> and <i>effects</i> of tax evasion	$\rho=0,496$; $\rho=0,457$	Not corroborated
H ₇	There are differences between the <i>marital status</i> regarding <i>causes</i> and <i>effects</i> of tax evasion	$\rho=0,728$; $\rho=0,284$	Not corroborated
H ₈	There are differences between the <i>type of businesses</i> regarding <i>causes</i> and <i>effects</i> of tax evasion	$\rho=0,032$; $\rho=0,428$	Corroborated; Not corroborated
H ₉	There are differences between <i>years in business</i> regarding <i>causes</i> and <i>effects</i> of tax evasion	$\rho=0,878$; $\rho=0,102$	Not corroborated
H ₁₀	There are differences between <i>number of employees</i> regarding <i>causes</i> and <i>effects</i> of tax evasion	$\rho=0,241$; $\rho=0,604$	Not corroborated

* Globally results for causes and effects (i.e group); Individual results (by question) are presented below in the discussion comments

Therefore, the evidence obtained is as follows:

- **O1.** According to the results the age bands with more propensity are 31-35 (34,5%) and 36-40 (27,6%).
- **O2.** The marital status with more propensity for tax evasion are married people (58,6%).
- **O3.** the type of business with more propensity for tax evasion are retailers (65,5%).
- **O4.** The band years in business with more propensity for tax evasion are 1-5 (58,6%).
- **H1.** Since the *p-value* is lower than our chosen significance level ($\alpha = 0,05$), we conclude that there is an association between “gender” and “tax evasion” ($p=0,039$).
- **H2.** Since the *p-value* is greater than our chosen significance level ($\alpha = 0,05$), we do not reject the null hypothesis; we conclude that there is not enough evidence to suggest an association between “education” and tax evasion ($p=0,135$).
- **H3.** Considering $\alpha = 0,05$, we do not reject the null hypothesis; we conclude that there is not enough evidence to suggest an association between the size measured by the “number of employees” and tax evasion and ($p=0,693$).
- **H4.** Globally, there is no association by gender regarding “causes” and “effects” of tax evasion ($p=0,148$ and $p=0,867$), respectively). Individually, there are no association by gender and “causes” and “effects” of tax evasion (we conclude that there is not enough evidence to suggest an association).
- **H5.** Due to the violation of the normality assumption, the non-parametric test Kruskal-Wallis was used. We do not reject the null hypothesis; globally, we conclude that there is no association between “age” and the “causes” of tax evasion ($p=0,496$). However, there is an association between “age” and the “effects” of tax evasion ($p=0,031$). Individually, we did not find any association between age and *causes* and/or *effects*.
- **H6.** Concerning the “education” background, globally, we conclude that there is no association between “education” and the “causes” and “effects” of tax evasion ($p=0,496$ and $p=0,457$), respectively). Individually, we conclude that there is an association between “education” and “causes” and “effects”:

Causes:

- 1B “a large proportion of taxes is used by the government for meaningless purposes” (respondents with “tertiary education” agree more, mean: 1,55 +/-0,826); $p=0,004$.
- 9B “the amount of tax I have to pay is reasonable considering the benefits received”; (respondents with “tertiary education” agree more, mean: 1,70 +/-0,801); $p=0,020$.
- 13B “a lot of people do not pay tax that is why I do not pay tax”; (respondents with “secondary/technical education” agree more, mean: 1,34 +/-0,656) $p=0,011$.
- 14B “government receives enough tax, so it does not matter if some people evade tax”; (respondents with “no education” agree more, mean: 1,50 +/-0,798); $p=0,014$.
- 15B “the tax burden is so heavy that many people are forced to evade it in order to survive” (respondents with “tertiary education” agree more, mean: 1,55 +/-0,605); $p=0,016$.
- 16B “wealthy people evade tax more often than the poor” (respondents with “tertiary education” agree more, mean: 1,45 +/-0,686); $p=0,022$.

Effects:

- (vii) 19B “tax evasion would decrease government revenue” (respondents with “no education” agree more, mean: 1,23 +/-0,599); $p=0,016$.
- **H7.** Concerning the “marital status”, globally, we conclude that there is no association between “marital status” and the “causes” and “effects” of tax evasion ($p=0,728$ and $p=0,284$, respectively). Individually, we conclude that there is a significant association between “marital status” and “causes” (not “effects”):

Causes:

- 8B. “the tax system is very complicated” (respondents single agree more, mean: 1,38 +/- 0,824); $p=0,012$.
- 9B. “the amount of tax a have to pay is reasonable considering the benefits received” (respondents divorced agree more, mean: 1,2 +/- 0,422); $p=0,001$.
- 11B. “tax agents collect the right amount of tax from us” (respondents divorced agree more, mean: 2,5 +/- 0,707); $p=0,026$
- **H8**. Regarding “type of business”, globally, we conclude that there is a statistic association between “type of business” and the “causes” of tax evasion ($p=0,032$). There is no association with “effects”. Individually, we conclude that there is a significant association between “type of business” and “causes” of tax evasion (no association with effects).

Causes:

- 2B. “It is unfair to pay tax” (respondents retailers agree more, mean: 1,86 +/- 0,773); $p=0,039$.
- **H9**. Regarding “years in business” globally, we conclude that there is no association with tax evasion causes and effects. Individually, we conclude that there is a significant association between “years in business” and “effects” of tax evasion (not with causes).

Effects:

- 20B. “tax evasion causes inequalities and increase the tax burden on others” (respondents “up to five” agree more, mean: 1,36 +/- 0,563); $p=0,021$.
- **H10**. Regarding “number of employees”, globally, we conclude there is no association with “causes” and “effects of tax evasion. Individually, we conclude that there is a significant association between “number of employees” and “causes” of tax evasion (not with effects).

Causes:

- 7B. “rich people should pay tax at a higher rate” (respondents “10 and above”, mean: 1,15 +/- 0,555); $p=0,031$.

5. CONCLUSION

Considering the aim of this study (and his exploratory character) we found evidence concerning the causes and effects of tax evasion/avoidance in the Sekondi-Takoradi Metropolitan Assembly of the Western Region of The Republic of Ghana (according to the respondent’s opinion). People within 31 to 40 years and married people are those that engage more in tax evasion. The retail sector and businesses from 1 to 5 years old are those that show more propensity to tax evasion. There are differences between males and females regarding tax evasion. More females denied that committed tax evasion or are not sure about their behaviour. We found no evidence regarding the education profile and past tax evasion events (no differences found). The company’s size, measured by the number of employees, does not show differences in relation to tax evasion. Regarding the causes and effects of tax evasion, we found the following evidence:

- 1) in relation to gender, no differences were found.
- 2) in relation to age, there are no differences concerning the *causes*, however, there are differences regarding the *effects*.
- 3) There are no significant differences globally in relation to “education” background. However, individually, about the *causes* and *effects* there are differences. The most significant *causes* are the uses of tax for meaningless purposes, the benefits received are not reasonable taking into account the amount of tax paid; the moral issues – “I do not pay tax because the others do not pay”, the amount of tax is enough, therefore, if I do not pay does

not matter, the “tax burden is so high that people needs to evade in order to survive” and “wealthy people evade more than the poor”. The main *effect* of tax evasion is the decrease of government revenue.

- 4) In terms of marital status, globally there are no differences between married and divorced respondents in relation to causes and effects. However, individually, we found differences only in relation to *causes* of tax evasion: “the complexity of the tax system”, “the benefits are no fair considering the tax amount paid” and the “correct amount of tax collected by the tax agents”; no differences were found in *effects*.
- 5) In terms of “type of business”, globally, there are differences only in relation to *causes*. We only identified differences in the causes individually – “it is unfair to pay tax”.
- 6) Globally, we found no differences between “years in business” and the *causes* and *effects* on tax evasion. Nonetheless, individually, there are differences regarding *effects* – the tax evasion leads to inequalities and increase the tax burden on others.
- 7) In the factor size of the small entities, measured by the “number of employees”, globally, there are no significant differences on cause and effects. Individually, the most significant *cause* of tax evasion is because rich people should pay a higher rate; no significant *effects* were found.

In summary, the retail sector is more prone to tax evasion, and females have different behaviour than males. In relation to cause and effects, education and marital status are the factors that show the main differences.

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