

Research Article

A Reflection on Tax Pyramiding: Hidden Tax Base in Customs Duties and Taxes Administration: Evidence from Rwanda

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Abstract: In taxation domain, the discrepancy between the theory and practice is also observed, especially in customs duties and taxes management where the practice of tax pyramiding is applied as tax base with legal coverage but without theoretical framework. The paper intended to review the literature on taxation theory, especially on tax base about tax pyramiding in customs, to determine the impact of tax pyramiding on customs tax bases and to find out the contribution of tax pyramiding of customs revenue collection. To achieve those objectives, various documents on tax base theory have been used and imported products in Rwanda have been split into two groups; group of products that attract all customs duties and taxes and group of products that do not attract excise duties. And four products have been selected from each group to compare paid customs duties and taxes with what should be paid if no tax pyramiding is applied. The results revealed that tax pyramiding; tax on tax, has not been a concern for tax scholars, even if its practice is present in many tax administrations. The paper also found out for excise duties-free products, tax pyramiding contributes at 32.5% on tax base increase and 11.1% on customs duties and taxes increase, for imported products with excise duties; tax pyramiding contributes at 98% on tax base increase and 33.05% on customs duties and taxes increase. From the above findings, extensive researches have been recommended for finding out the philosophical and legal foundations of tax pyramiding as a tax base and its impact on general price level of imported goods.

Keywords: Tax pyramiding, tax base, customs duties and taxes.

1. Introduction

In some cases, human beings undertake activities intuitively. Meaning, they perform certain activities that are not covered by a predetermined theory. They practice without theorizing what they do. E. Kant says: “theory without practice is empty, practice without theory is blind”. (Morrison and Werf, 2012). And this underpinned by K. Marx: “practice without theory is blind, theory without practice is sterile”. (Morrison and Werf, 2012). By the views of those scholars, it is deduced that what is done by human being becomes more logical when it is backed by a well-structured theory to give an ideal guidance for its *modus operandi*. In taxation domain, the discrepancy between the theory and practice is also observed. Pedone (2009) wrote that: “the gap between tax theory and tax practice may be traced back to variances between ideal taxation, legally imposed taxation, the effective impact of taxation, the effective incidence of taxation, and perceived taxation.” By this statement, it is deduced that what is stipulated by tax scholars and what is done by tax practitioners differ due to how taxes are conceived, how tax laws are legislated, who bear the tax burden, who pay the actual tax, etc. Put in other simple terms, sometimes, what is theorized in taxation is not wholly concretized and what is done in tax legislation and collection is not wholly theorized. Most of tax administrations in the world apply tax pyramiding to raise and collect tax revenues. Tax pyramiding

is a tax system that refers to the imposition of a tax on a tax (Nellen, 2007). This practice frequently occurs for taxes that are levied on goods and services whereby those goods are taxed at multiple stages and imposed taxes at early stages are included in tax bases for further stages imposition (Chamberlain and Fleenor, 2006).

Despite its important levied taxes by the mentioned taxation practice, particularly for customs duties and taxes, tax pyramiding is not theorized as one of tax bases. Put in simple terms, some customs duties and taxes are levied by taxing other levied taxes basing on tax pyramiding, but there is no clear theory of taxation that enlightens that widely used practice by which taxes are collected basing on other taxes as tax bases. Therefore, this paper intends to review a literature for putting out the silence of taxation theory, especially tax base literature about tax pyramiding in customs, to describe the impact of tax pyramiding on customs tax bases and to find out the contribution of tax pyramiding of customs revenue collection.

2. Theoretical literature review

a) Tax base

Tax base is a major factor that affect the volume of tax revenues in a given country. It is the first thing that is to be evaluated by tax administration before it determines a type of tax and the rate of imposition. In other words, every tax must have a basis on which it will be levied.

A tax base is the total amount of income, property, asset, consumption, transaction or other economic activity subject to taxation by tax authority (Tax Foundation, n.d.). By this definition, tax bases may categorized basing on what is earned; when taxes are raised basing on people's income. By this basis, income tax, Pay as you earn, corporate profit tax, etc. fall under this category. Taxes are also levied on what is owned by people, and property tax and wealth tax obey at this principle. Moreover, taxes are levied on what are bought, for instance value added tax, excise taxes, etc. Lastly, it is deducted from the above definition that taxes may also be collected on what people do, for instance excise tax on certain production, pigovian tax, etc. By reviewing views of different scholars on tax bases, a divergence is realized on what should be taxed. Put in other words, there is no universally accepted tax bases to be used by all governments in the world.

Various works have been undertaken to reconcile the theoretical views and the practice of taxation and are mirrored in various theories of taxation through various economic thoughts as they evolved with time. Adam Smith and David Ricardo; even if they advocating for free economy whereby the government intervention should be kept at the minimal influence, thus they developed a theories of taxation by which government may receive finance by taxes to undertake its activities of social protection. Hence, according to them, quoted by Shoup (1957) "major taxes are taxes on rent of houses, on profit, on wages and on commodities; luxuries or necessities, as excises or customs." Analysis of that statement of those economists yields that two tax bases are to be used to assess and collect tax revenues for government, such as incomes that are earned by works as wages and salaries, by businesses on their profits, landlords incomes as rents and lastly, taxes are to be levied on consumption of goods.

As written by Hindriks and Myles (2013), the model of Haig-Simon stipulates that total income is the best measure of capacity to pay tax and should be treated as the tax base. By total income, it means labor income plus accrued income from capital. But on the other hand, Kaldor approach claims that annual consumption is the best measure of capacity to pay and so should serve as the tax base (Hindriks and Myles, 2013: p 620). This view of Nicholas Kaldor is widely accepted by taxation theorists and practitioners since it more logical to tax economic withdrawals, what individuals take out of the economy through consumption instead of taxing economic injections, meaning what people put into the economy to increase income, such us labor income, profits, etc. By continuing analysis on tax bases, economists came up with the argument of taxes on inheritances. Inheritance tax is understood as a tax paid by a person who inherits money or property of a person

who has died. Inheritance tax is regarded by some authors as property tax that has not been imposed but not evaded or as capitalized income tax, paid once in generation instead of once a year as suggested by Bastable (West Max, 1893).

Taxes; in history of taxation, keep changing. Some of them are adopted and eventually discarded. In other words, tax bases are not static; they change as the time goes on depending on the society needs and changes in economic realities. For the sake of argument, in United Kingdom windows tax was introduced in 1696 in the reign of William III and abolished in 1851; hearth tax introduced in 1662 and closed in 1689 (Hindriks and Myles: 2013, p505).

To sum up, tax bases are categorized around income, property, consumption and some economic transactions. By this realization, the literature remains with a gap of not including tax pyramiding as a base, especially in customs duties and taxes administration.

b) Legal justification of tax pyramiding in customs

The issue of tax pyramiding in customs administration that leads to taxation of taxes occurs while levying excise duties and value added taxes on imports (VAT on imports). This fiscal practice is done basing on promulgated laws of the countries.

c) Excise duty levy

In Canada, excise duties levy in customs reflects the issues of tax on taxes. Government of Canada, n.d., in Excise Tax Act (R.S.C., 1985, c. E-15), part III; related to Excise Taxes on Cosmetics, Jewelry, Radios, Etc., section 22(1) stipulates that:

“duty paid value means the value of the article as it would be determined for the purpose of calculating an ad valorem duty on the importation of that article into Canada under the laws relating to the customs and the Customs Tariff whether that article is in fact subject to ad valorem or other duty or not, plus the amount of the customs duties, if any, payable thereon; (valeur à l’acquitté).” Put in simpler terms, dutiable value for excise duty in Canada is the sum of determined value of imported article for the purpose of calculating import duties and amount of customs duties paid or payable for that imported article.

EU member states committed themselves on 31 December 1992 by signing the Single European Act by to inaugurate the internal market to guarantees the free movement of goods, persons, services and capital without internal borders, member states reserve the right to charge excise duties; also known as consumption taxes for specific goods, in non-harmonized manner for some products (Schröer-Schallenberg, 2012).

In East African Community, excise duties are levied in the same ways. In Kenya, by Excise duty act No 23 of 2015, revised in 2021 stipulates that the excisable value of excisable goods imported into Kenya shall be the sum total of the following amounts:

- (a) the customs value of the goods as determined under the East African Community Customs Management Act, whether or not any duty of customs is payable on the goods; and
- (b) the amount of duty of customs (if any) payable on the goods under the East African Community Customs Management Act, 2004 (No. 1 of 2005).

In Uganda, Excise Duty Act on 2014, in its part II related to calculation of Excise duty payable in respect of excisable goods and services whose excise duties are expressed in percentages, Section 8, “the value of an imported excisable goods is the sum the value of the goods ascertained for the purpose of import duties under the laws relating to customs; and the amount of import duties payable on the imported good.” (Republic of Uganda, 2014). In United Republic of Tanzania, Excise (Management and tariff) Act of 2019, in its article 141 related to the determination of taxable value for excise duties for imported goods, section (a) stipulates that: “in respect of a scheduled article

imported, be the value declared and determined in accordance with the provisions of section 122 of the East African Community Customs Management Act taking into account the import duty payable.” (The United Republic of Tanzania, 2019).

In DRC, the law no 18-002 promulgated on 13 March 2018 in a special gazette p5 of 18 April 2018, related to excise duties code, it is provided with a long list of products that are concerned with excise duties at different rates. In its article 25.1 the tax base for excise duties on eligible imported goods in DRC is determined by the sum of determined customs value and levied import duties. It is obviously that the excise duties is levied on import duties. Nevertheless, this law in this art 25.2, stipulates that for some imported products such as fuel, kerosene, etc. the tax base is fixed by ministry in charge of economy and finances.

The same procedure for excise duties levy on imported products is also applied in Rwanda. By the Law No 37/2015 of 30/06/2015, modifying and complementing law No 26/2006 of 27/05/2006 determining and establishing consumption tax on some imported and locally manufactured products as modified and complemented to date, in its article 2, tax base for excise duties on eligible imported products is determined by the Cost, Insurance and Freight (CIF) upon arrival in Kigali. The law is complemented Rwanda Revenue Authority (2019) whereby Excise Duty base is determined by summing up the CIF, Import Duty, handling fees (HF).

d) Value added tax

Value added tax on imported products displays the issue of including taxes into tax base; thus a tax becomes a tax base. This fiscal practice is applied in many countries. In Rwanda, the Law No 37/2012 of 09/11/2012 establishing the Value Added Tax, in its article 14, highlights how VAT on imported goods is managed. It stipulates that the tax base for VAT on imports is the sum of the value of the goods for the implementation of customs duty under the customs legislation; i.e. the cost, insurance and freight (CIF) incurred in bringing the goods into Rwanda, the costs for services which facilitate the import of goods. It is added then the amount of customs duty, excise, port charges, and other fiscal charges.

In Burundi, by the Law No 1/02 of 17/02/2009, establishing the Value Added Tax, in section 2 relating to importation, in Article 13, instructs that taxable base for import VAT is made up by the sum of CIF augmented by import duties and taxes, and other charges levied by customs administration and ports.

In Uganda, Legislation as at 31 December 2000 relating to Value Added Tax Act, in its article 23, explains the taxable value of an import of goods. It instructs that the taxable value of an import of goods is the sum of (a) the value of the goods ascertained for the purposes of customs duty under the laws relating to customs; (b) the amount of customs duty, excise tax and any other fiscal charge other than tax payable on those goods (Republic of Uganda, 1999).

In Tanzania VAT law has been promulgated in 1997. By the VAT act of 1997, as revised in 2006 in its article 14(1), tax base for VAT on imports the value declared and determined in accordance with the provisions of the Customs Laws, taking into account the import duty, the excise duty and any other tax or leave payable on the goods, otherwise than under the Act. Simply put, the taxable base for VAT on imported goods is the sum of determined customs value, import duty, excise duty and other tax payable on concerned imported goods.

In Kenya, Value Added Tax act no. 35 of 2013, revised edition 2018 instructs the way VAT on imported goods is determined. Article 14(1) of that VAT act stipulates that Taxable value for VAT on imported goods is made up by the summation of the value of the goods ascertained for the purpose of customs duty, in accordance with the East African Community Custom Management Act, 2004, and the amount of duty of customs paid on those goods (The Republic of Kenya, 2018). To

sum up, the tax pyramiding is a legal practice used in levying customs duties and taxes in various countries. It has a legal coverage, but various tax scholars do not mention it among canonized tax bases.

3. Materials and methods

For analyzing the issue of tax pyramiding as a tax base in customs, various approaches have been used. A literature review of various documents has been conducted to analyze theoretical nature and basis of tax pyramiding. Moreover, a legal framework that justify tax pyramiding in customs from different countries has been review. In order to assess the magnitude of tax pyramiding on customs tax base and tax collections, two groups of imported products have been made basing on the nature of attracted customs duties and taxes:

Group A: It is made up by products that pay all customs duties and taxes except Excise duties. Four products have been selected: Garments, Shoes, cosmetics, tiles.

Group B: It is made up by products that pay all customs duties; i.e. Import duties, Excise duties, Value added taxes, Withholding taxes, African Union levy, Infrastructure development levy and Quality Inspection Fees. Four products; lemonades, beer, liquors and lubricants, have been purposively selected.

Then, paid customs duties and taxes have been analyzed basing on what is stipulated by laws and various formula that are applied to compute those customs duties and taxes. Those formula are below as adopted from RRA tax handbook published in 2019 (Rwanda Revenue Authority, 2019).

Table 1. Customs duties and taxes and their rates in Rwanda

S/N	Abbreviation	Customs duties and taxes	Formula
1	C02	Import duties	$C02 = CIF * \text{Import duty rate}$
2	E06	Excise duties	$E06 = (CIF + C02 + HF) * \text{rate.}$
3	V02	Value Added Taxes	$V02 = (CIF + C02 + E06 + HF) * \text{rate}$
4	W01	Withholding taxes	$W01 = CIF * 5\%$
5	AU0	African Union Levy	$AU0 = CIF * 0.2\%$
6	IDL	Infrastructure Development Levy	$IDL = CIF * 1.5\%$
7	QIF	Quality Inspection Fees	$QIF = FOB * 0.2\%$
Source: Author (2023), Adopted from RRA tax handbook, 2019.			

Cost Insurance Freight (CIF) that have been declared in customs services for all selected products have been used as basis for all analysis and computations. Those CIFs are in the table below displayed in Rwandan Francs (RwF).

Table 2. CIFs for selected products

S/N	Products	Declared CIFs (RwF)
Group A		
1	Garments	5,177,739
2	Shoes	24,591,453
3	Cosmetics	6,092,036
4	Tiles	3,649,742
Group B		
1	Lemonades	4,006,908
2	Beers	83,551,840
3	Liquors	2,960,888
4	Lubricants	28,754,047
Source: Author (2023)		

Then, computation of the customs duties and taxes assuming that there is no tax pyramiding has been undertaken. The comparison of results with actually paid customs duties and taxes has been done to assess the extent of contribution of tax pyramiding on tax base and customs duties and taxes collections.

4. Findings and discussions

The intent of this paper was to review a literature for putting out the silence of taxation theory, especially tax base literature about tax pyramiding in customs, to describe the impact of tax pyramiding on customs tax bases and to find out the contribution of tax pyramiding of customs revenue collection.

a) Tax pyramiding in tax base literature

The reviewed literature on tax base has revealed various types of tax bases, such as income, property, consumption/expenditures, and economic activities.

Various documents on tax base do not mention tax pyramiding even if it is discussed many authors as a source of government revenues (Nellen, 2007; Barbe, 2012). Tax laws of many countries provide legal coverage for tax pyramiding practices, especially in their customs duties and taxes management. But, the theoretical gap is still present since tax pyramiding implying tax on paid taxes is not yet theorized, there is a gap in taxation domain between the theory and practice is also observed. As Pedone (2009) opined, the gap between tax theory and tax practice comes from discrepancies between ideal taxation and legally imposed taxation.

b) Impact of tax pyramiding on customs tax base

Various calculations have been undertaken on sampled products. The results in Table 3 and 4 revealed that due to tax pyramiding in customs duties and taxes, customs tax base increases by adding import duties and excise duties to determined customs value (CIF). This yields additional tax base of:

Group A: Imported products that do not attract excise duties (Table 2):

Garments: Tax base (CIF) of 5,177,739 RwF is augmented by 1,294,435 RwF, equivalent to 25% increase.

Shoes: Tax base (CIF) of 24,591,453 RwF is augmented by 8,607,009 RwF, equivalent to 35%.

Cosmetics: Tax base (CIF) of 6,092,036 RwF is augmented by 2,132,213 RwF, equivalent to 35%.

Tiles: Tax base (CIF) of 3,613,606 RwF is augmented by 1,277,410 RwF, equivalent to 35%.

By averaging, it is found that tax pyramiding increases customs tax base by 32.5%.

Table 3. Comparison of paid customs duties and taxes and ideal customs duties and taxes without tax pyramiding for products that attract all customs duties and taxes (Values in RwF)

S/N	Import duties and taxes	Actual taxable bases (A)**	Rates (%) (B)	Paid import duties and taxes (A*B) **	Ideal taxable base (CIF)	Rates (%) (B)	Ideal import duties and taxes (CIF*B)	Variance in imports duties and taxes (A*B)-(CIF*B)
A. Garments/T-Shirts								
1	C02	5,177,739	25	1,294,435	5,177,739	25	1,294,434.75	0.3
2	V02	7,584,710	18	1,166,838	5,177,739	18	931,993.02	234,845.0
3	W01	5,177,739	5	258,887	5,177,739	5	258,886.95	0.0
4	AU0	5,177,739	0.2	10,355	5,177,739	0.2	10,355.48	-0.5
5	IDL	5,177,739	1.5	77,666	5,177,739	1.5	77,666.09	-0.1
Total				2,808,181			2,573,336.28	234,844.7
Tax base due to tax	Value		1,294,435					
	% of		25					

pyramiding	customs value							
Import duties and taxes due to tax pyramiding	Value					234844.7		
	% of total import duties and taxes					9.13		
B. Shoes								
1	C02	24,591,453	35	8,607,009	24,591,453	35	8,607,008.55	0.4
2	V02	7,584,710	18	5,996,675	24,591,453	18	4,426,461.54	1,570,213.5
3	W01	24,591,453	5	1,229,573	24,591,453	5	1,229,572.65	0.4
4	AU0	24,591,453	0.2	49,183	24,591,453	0.2	49,182.91	0.1
5	IDL	24,591,453	1.5	368,872	24,591,453	1.5	368,871.80	0.2
Total				16,251,312			14,681,097.4	1,570,214.6
Tax base due to tax pyramiding	Value					8,607,009		
	% of customs value					35		
Import duties and taxes due to tax pyramiding	Value					1,570,214.6		
	% of total import duties and taxes					10.70		
C. Cosmetics								
1	C02	6,092,036	35	2,132,213	6,092,036	35	2,132,212.6	0.4
2	V02	7,584,710	18	1,481,920	6,092,036	18	1,096,566.5	385,353.5
3	W01	6,092,036	0	0	6,092,036	0	0.0	0.0
4	AU0	6,092,036	0.2	12,184	6,092,036	0.2	12,184.1	-0.1
5	IDL	6,092,036	1.5	91,381	6,092,036	1.5	91,380.5	0.5
Total				3,717,698			3,332,343.7	385,354.3
Tax base due to tax pyramiding	Value					2,132,213		
	% of customs value					35		
Import duties and taxes due to tax pyramiding	Value					385,354.3		
	% of total import duties and taxes					11.6		
D. Tiles								
1	C02	3,649,742	35	1,277,410	3,649,742	35	1,277,409.7	0.3
2	V02	5,068,092	18	912,257	3,649,742	18	656,953.6	255,303.4
3	W01	3,649,742	0	0	3,649,742	0	0.0	0.0
4	AU0	3,649,742	0.2	7,227	3,649,742	0.2	7,227.0	0.0
5	IDL	3,649,742	1.5	54,746	3,649,742	1.5	54,746.1	-0.1
6	QIF	3,613,606	0.2	7,227	3,613,606	0.2	7,227.2	-0.2
Total				2,258,867			2,003,563.6	255,303.4
Tax base due to tax pyramiding	Value					1,277,410		
	% of customs value					35.00000822		
Import	Value					255,303.4		

duties and taxes due to tax pyramiding	% of total import duties and taxes		12.74
Source: Author computation (2023)			

****Actual tax bases and paid import duties and taxes have been taken as customs declarations processed by Rwanda Electronic Single Window that is used to compute import duties and taxes in Rwanda. The system rounds off all figures.**

Group B: Imported products that attract all customs duties and taxes (Table 4): Lemonades, beers, liquors and wines, and lubricants.

Lemonades: Tax base (CIF) of 4,006,908 RwF is augmented by 3,530,502 RwF, equivalent to 88% increase.

Beers: Tax base (CIF) of 83,551,840 RwF is augmented by 97,471,894 RwF equivalent to 116.6%.

Liquors and wines: Tax base (CIF) of 2,960,888 RwF is augmented by 3,340,519 RwF equivalent to 112.82%.

Lubricants: Tax base (CIF) of 28,754,047 RwF is augmented by 21,659,790 RwF equivalent to 75.3%.

By averaging, it is found that tax pyramiding increases customs tax base by 98%.

The above findings reveal a paramount impact of tax pyramiding on customs tax bases to the extent of 32.5% increase for imported goods with no excise duties and 98% increase for imported goods attracting excise duties in Rwanda. This shows that tax pyramiding in customs duties and taxes computations and payments is a hidden tax base.

Barbe (2012) has analyzed gross receipts tax in United States and found that it bases on tax pyramiding and one of various issues has been put out from gross receipts tax: the difference between effective tax rates and the statutory rate faced by each industry due to the gross receipts tax. This is the case for customs duties and taxes payment. The tax pyramiding causes the difference between statutory customs values and effective customs tax base.

The magnitude depends on nature of imported product and the number of attracted customs duties and taxes. For imported products that do not pay excise duties, effect of tax pyramiding on tax base is lower compared to imported goods that are charged with excise duties.

Table 4. Comparison of paid customs duties and taxes and ideal customs duties and taxes without tax pyramiding for products that attract all customs duties and taxes (Values in RwF)

S/N	Import duties and taxes	Actual taxable bases (A)**	Rates (%) (B)	Paid import duties and taxes (A*B)	Ideal taxable base (CIF)	Rates (%) (B)	Ideal import duties and taxes (CIF*B)	Variance in imports duties and taxes (A*B)-(CIF*B)
A. Lemonades								
1	C02	4,006,908	35	1,402,418	4,006,908	35	1,402,417.8	0.2
2	E06	5,456,626	39	2,128,084	4,006,908	39	1,562,694.12	565,389.88
3	V02	7,584,710	18	1,365,248	4,006,908	18	721,243.44	644,004.56
4	W01	4,006,908	5	200,345	4,006,908	5	200,345.4	-0.4
5	AU0	4,006,908	0.2	8,014	4,006,908	0.2	8,013.816	0.184
6	IDL	4,006,908	1.5	60,104	4,006,908	1.5	60,103.62	0.38
Total				5,164,213			3,954,818.2	1,209,394.8

Tax base due to tax pyramiding	Value	3,530,502						
	% of customs value	88.11038337						
Import duties and taxes due to tax pyramiding	Value	1209,394.8						
	% of total import duties and taxes	30.58						
B. Beers								
1	C02	83,551,840	35	29,243,144	83,551,840	35	29,243,144	0
2	E06	113,714,584	60	68,228,750	83,551,840	60	50,131,104	18,097,646
3	V02	181,943,334	18	32,749,800	83,551,840	18	15,039,331.2	17,710,468.8
4	W01	0	0	0	83551840	0	0	0
5	AU0	83,551,840	0.2	167,104	83,551,840	0.2	167,103.68	0.32
6	IDL	83,551,840	1.5	1,2532,78	83,551,840	1.5	1,253,277.6	0.4
Total				131,642,076			95,833,960.5	35,808,115.52
Tax base due to tax pyramiding	Value	97,471,894						
	% of customs value	116.66038						
Import duties and taxes due to tax pyramiding	Value	35,808,115.52						
	% of total import duties and taxes	37.36474559						
C. Wines and Liquors								
1	C02	2,960,888	25	740,222	2,960,888	25	740,222	0
2	E06	3,714,710	70	2,600,297	2,960,888	70	2,072,621.6	527,675.4
3	V02	6,315,007	18	1,136,701	2,960,888	18	532,959.84	603,741.16
4	W01	0	0	0	2,960,888	0	0	0
5	AU0	2,960,888	0.2	5922	2,960,888	0.2	5,921.776	0.224
6	IDL	2,960,888	1.5	44,413	2,960,888	1.5	44,413.32	-0.32
Total				4,527,555			3,396,138.54	1,131,416.46
Tax base due to tax pyramiding	Value	3,340,519						
	% of customs value	112.8215252						
Import duties and taxes due to tax pyramiding	Value	1,131,416.46						
	% of total import duties and taxes	33.31479126						
D. Lubricants								
1	C02	28,754,047	25	7,188,512	28,754,047	25	7,188,511.75	0.25
2	E06	39,111,563	37	14,471,278	28,754,047	37	10,638,997.4	3,832,280.61
3	V02	50,556,174	18	9,100,111	28,754,047	18	5,175,728.46	3,924,382.54
4	W01	28,754,047	5	1,437,702	28,754,047	5	1,437,702.35	-0.35
5	AU0	28,754,047	0.2	57,508	28,754,047	0.2	57,508.094	-0.094
6	IDL	28,754,047	1.5	431,311	28,754,047	1.5	431,310.705	0.295
7	QIF	28,469,354	0.2	56,939	28,469,354	0.2	56,938.708	0.292
Total				32,686,422			24,929,758.7	7,756,663.25
Tax base	Value	21,659,790						

due to tax pyramiding	% of customs value	75.32779647
Import duties and taxes due to tax pyramiding	Value	7,756,663.25
	% of total import duties and taxes	31.11407266
Source: Author computation (2023)		

****Actual tax bases and paid import duties and taxes have been taken as customs declarations processed by Rwanda Electronic Single Window that is used to compute import duties and taxes in Rwanda. The system rounds off all figures.**

c) Impact of tax pyramiding on customs revenue collection

Various calculations have been undertaken on sampled products; lemonades, beers, liquors and lubricants, that attract more of customs duties and taxes. The results in Table 2 and 3 revealed that due to tax pyramiding in customs duties and taxes, customs tax revenue collections increases. Comparing with import duties and taxes that should be paid when no tax base pyramiding and imports duties and taxes actually paid in customs on imported goods, it yields additional import duties and tax collection of:

Group A: Imported products that do not attract excise duties (Table 3):

Garments: Total revenue collection of 2,573,336.28 RwF should be paid. But is augmented by 234,844.7 RwF, and actually paid customs duties and taxes becomes 2,808,181 RwF, equivalent to increase of 9.13% due to tax pyramiding in customs duties and tax computation and payments.

Shoes: Total revenue collection of 14,681,097.4 RwF should be paid. But is augmented by 1,570,214.6 RwF, and actually paid customs duties and taxes becomes 16,251,312 RwF, equivalent to increase of 10.7% due to tax pyramiding in customs duties and tax computation and payments.

Cosmetics: Total revenue collection of 3,332,343.7 RwF should be paid. But is augmented by 385,354.3 RwF, and actually paid customs duties and taxes becomes 3,717,698 RwF, equivalent to increase of 11.6% due to tax pyramiding in customs duties and tax computation and payments.

Tiles: Total revenue collection of 2003563.6 RwF should be paid. But is augmented by 255303.4 RwF and actually paid customs duties and taxes becomes 2,258,867 RwF equivalent to increase of 12.74% due to tax pyramiding in customs duties and tax computation and payments.

By averaging percentage increments in customs duties and taxes collections for those sampled products that do not attract excise duties, it is found that; due to tax pyramiding in customs duties and taxes computation and payment, there is an increase of 11.04 % in customs duties and taxes collection.

Group B: Imported products that attract all customs duties and taxes (Table 4):

Lemonades: Total revenue collection of 3,954,818.2 RwF should be paid. But is augmented by 1,209,394.8 RwF and actually paid customs duties and taxes becomes 5,164,213 RwF equivalent to increase of 30.58% due to tax pyramiding in customs duties and tax computation and payments.

Beers: Total revenue collection of 95,833,960.5 RwF should be paid. But is augmented by 35808115.5 RwF, and actually paid customs duties and taxes becomes 131,642,076 RwF, equivalent to increase of 37.3% due to tax pyramiding in customs duties and tax computation and payments.

Liquors and wines: Total revenue collection of 3,396,138.5 RwF should be paid. But is augmented by 1,131,416.4 RwF and actually paid customs duties and taxes becomes 4,527,555 RwF, equivalent to increase of 33.3% due to tax pyramiding in customs duties and tax computation and payments.

Lubricants: Total revenue collection of 24,929,758.7 RwF should be paid. But is augmented by 7,756,663.25 RwF, and actually paid customs duties and taxes becomes 32,686,422 RwF, equivalent to increase of 31.1% due to tax pyramiding in customs duties and tax computation and payments.

By averaging percentage increments in customs duties and taxes collections for those sampled products that attract excise duties, it is found that; due to tax pyramiding in customs duties and taxes computation and payment, there is an increase of 33.09% in customs duties and taxes collection. As it has been documented by Tax foundation, tax pyramiding increases effective tax rates in a non-translucent way by applying tax rate to the same economic value multiple times (Tax foundation, n.d.). The above findings adhere to this realization since it has been revealed that customs duties and taxes increase by 11.1% for imported products excise duties-free and 33.05% for imported products with excise duties, due to the application of tax pyramiding principles.

5. Conclusion and recommendations

Most of tax administrations in the world apply tax pyramiding to raise and collect tax revenues, where by taxes are levied on paid taxes.

The paper was intended to review a literature for putting out the silence of taxation theory, especially tax base literature about tax pyramiding in customs, to describe the impact of tax pyramiding on customs tax bases and to find out the contribution of tax pyramiding of customs revenue collection. The paper also found out the extent to which tax pyramiding contributes to customs tax bases and customs tax revenue collection and it yields 32.5% for excise duties-free products and 98% for imported products with excise duties and 11.04 % for excise duties-free products and 33.09% for imported products with excise duties, respectively.

By reviewing different literatures on tax bases, it has been revealed that tax pyramiding; tax on tax, has not been a concern for tax scholars, even if its practice is present in many tax administrations. And basing on its fiscal characters and contributions to tax base enlargement and tax revenues collection, tax pyramiding is one of tax bases that are used by various tax administrations in the world.

From the above findings, it is recommended that:

More investigations should be undertaken to find out the philosophical and legal foundations of tax pyramiding that prevails in customs duties and taxes administration and see whether it can be included among the tax bases that are generally known and used by taxation theory and tax administrations in their tax policies and strategies as a way of enlarging and manipulating tax bases. If researches and reflections find that no philosophical and legal foundations of tax pyramiding that prevails in customs duties and taxes administration, mechanisms should be set down to advocate for its abolition in customs administration since it would be contrary to the principle of fairness in taxation.

More investigations should be conducted to determine the impact of tax pyramiding in customs duties and taxes administration on general price level of imported goods.

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