



ARTÍCULO ORIGINAL

Incidence of expenses of compliance with the fiscal vector in the profits of the Legal SMEs of Piñas Canton, Ecuador

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Abstract

The compliance expenses of the tax vector are those costs and time that a taxpayer assumes to comply with tax obligations, the standard of the Ecuadorian tax system has implemented strategies that encourage voluntary compliance, as well as the simplification of processes to reduce them, however, there is still a high cost, which essentially affects SMEs. The present investigation answers the question: How do the expenses of compliance with the fiscal vector affect the profits of the legal SMEs of the Piñas canton, period 2021? Whose objective was to determine the incidence of the expenses of compliance with the fiscal vector in the profits of the legal SMEs of the Piñas canton, period 2021. The Hypothetical-Deductive method was used, of a descriptive type and from a quantitative-qualitative approach. It considered a population of 169 Legal SMEs from the Piñas canton, and the questionnaire was applied to a sample of 67 businesses. The results detail that the sum of the internal and external costs affects the utility, where the highest is the internal cost. It is concluded that the expenses of the fiscal vector are high and the use of external accountants is very common in Legal SMEs.

Keywords: Fiscal vector, utility, SMEs, internal cost, external cost.

1. Introduction

The General Directorate of Taxation (DGT) developed a pilot plan called "Manual for measuring tax transaction costs in small and medium-sized enterprises" (CIAT - UN DESA, 2013) supported for its implementation with the Inter-American Center for Tax Administration (CIAT) and the United Nations Department of Economic and Social Affairs (UN DESA). Consequently, the Ecuadorian tax system has implemented strategies to simplify tax processes (Delgado-Olaya et al., 2022; Barberan et al., 2022; Pino Parra et al., 2022), and encourage taxpayers to voluntary compliance, in order to reduce expenses of compliance with the fiscal vector; however, despite the efforts, these continue to be high.

On the other hand, small and medium-sized enterprises (SMEs) in Ecuador are of great importance because they are generators of employment and income that positively benefit the growth and development of Ecuador (Santeli, 2016; Carrión et al., 2016; Subía-Veloz et al., 2018; Yáñez Sarmiento et al., 2018; Quezada-Torres et al., 2018; Guagua et al., 2020; Malquín and Pozo, 2022), according to Pavón (2016) "soque translate as higher expenses for financial management in a company causing a lower profit or incurring losses of economic resources, of acn the most promising source of growth, employment, and social inclusion to achieve a dignified life for all" (p. 8). Moreover, the Companies and Establishments Directory (2021) mentions that in Ecuador there are 882,766 companies and 1,068,160

establishments of which SMEs represent approximately 8.63% of the total registered companies; in Piñas canton there are around a total of 2302 establishments of which SMEs correspond to a total of 169, which represent a high participation in the market and in the local economy and those that are legal play a fundamental role in supporting continuous growth.

In recent years the legal SMEs in Piñas have reduced their profits, obtaining in 2021 an average of 11,264.42 *intotal*, which means a decrease of 13,239.84 compared to 2018. One of the possible causes that could have generated this reduction in profits may be the expenses of compliance with the fiscal vector, due to the fact that a taxpayer must constantly invest time, money, and other resources to comply with their tax obligations and formal duties. According to CIAT & UN DESA mentions (2014) compliance costs "can be divided into: (a) measurable/quantifiable economic costs that generate a direct impact on taxpayers' income" (p. 6). Furthermore, they point out that compliance costs affect in several ways and this effect can be even greater which can generate a vicious circle of low productivity, informality, high evasion, lack of public investment, lower economic growth (p. 13), and also on profits.

Therefore, the general objective of the research is to determine the incidence of expenses of compliance with the fiscal vector on the profits of legal SMEs in the Piñas canton, and the hypothesis (H1) is that expenses of compliance with the fiscal vector have an impact on the reduction of the profits of SMEs in the Piñas canton, period 2021.

Some documentary paths are related: 1) methodology for measuring tax transaction costs in Costa Rica and Uruguay (CIAT - UN DESA, 2014); 2) assessment that was conducted in Chile to determine the factors that influence the complexity of the tax system (Eurosocietal, 2015); 3) application of the CTT methodology in Latin America with the case in Costa Rica (CIAT - UN DESA, 2013); 4) calculating compliance costs for both the general and simplified regime (CIAT, Receita Federal & Sembrae, 2015); 5) identification of the main tax barriers that hinder the formalization and growth of businesses in Bogota (CCB, GBML, & SDH, 2016); 6) tax compliance costs in small Domiciled Taxpayers in the Province of Los Rios (Albaño & Manya, 2007); 7) (Bozano, Núñez, & Brito, 2017) who studies the CTT of the commercial companies of Tungurahua.

Consequently, there are few scientific approaches to the subject in question, thus the objective of the study was to determine the incidence of expenses of compliance with the fiscal vector on the profits of legal SMEs in the Piñas canton of Ecuador, period 2021.

2. Methods

The development of the research considered the Hypothetical-Deductive method, also the field and documentary type because the CIAT - DESA methodology was applied and assumes a descriptive level. The research population consisted of 169 companies and a sample of 67 legal SMEs, of which 53 are small, 10 are medium-sized A companies and 4 are medium-sized B companies. For the collection of information, a survey was applied to the management of the legal SMEs. Descriptive and multivariate statistics, such as linear regression, were used for the analysis.

3. Results and discussion

- Determination of the Expenditure of Compliance with the Fiscal Vector

For the calculation of the expense of compliance with the fiscal vector, the variables proposed by CIAT - UN DESA (2014) were considered. These are the sum of internal and external costs, and sub-variables (table 1):

- Determination of Internal Cost (IC)

The internal cost was determined by applying the following variables:

$$\text{Internal Cost} = T_A * V_A + GA \quad (1)$$

Table 1. Variables of the Expenditure of Compliance with the Fiscal Vector

VARIABLES		
Expenditure of compliance with the fiscal vector = Internal Cost + External Cost		
GVF= CI+CE		
Sub variables		
Internal Cost		External Cost
Annual Time*Economic Value of Time + Administrative Expenses		Expenses of Training GA
$CI = T_A * V_A + GA$		
Annual Time (T_A)	Economic value of Time del Tiempo (V_A)	Bills Administrative (GA)
Tax Information and Training		
+		
Update and Registration in the System		
+		
Registration and Maintenance of Accounting Books		Printing of receipts
+	Accountant salary / Total	+
Presentation of declarations and annexes	time for all	accounting systems
+	the activities	+
Tax payment		Internet services
+		+
Tax Control		Mobilization (related to taxes)
+		
Tax Refund		
+		
Requests and requirements to the SRI		

Source: Own elaboration based on (CIAT - UN DESA, 2014)

Where T_A corresponds to the annual time that an accountant uses to perform the activities that are part of the fiscal vector, V_A to the Economic Value of Time and GA to Administrative Expenses.

Calculation of annual time (T_A)

The calculation of time according to the sub-variables identified (Table 2) considers the components shown in the time matrix in the table:

Table 2. Variables of the Expenditure of Compliance with the Fiscal Vector

Type of accountant	Annual Time Information and Tributary training (TIT)	Annual Time Update and record in the system (TAR)	Annual Time Registration and tributary books maintenance (TRC)	Annual Time Forms and appendices (TFA)	Annual Time Tax payment (TPI)	Annual time Tributary Control (TCT)	Annual Time Taxes devolution (TDI)	Annual time Requests and demands to the SRI (TSR)	Annual Time (T_A)
External accountant	10,28	1,13	404,90	37,38	10,16	0,38	0,07	0,16	464,45
Internal accountant	40,60	1,40	1032,00	37,50	4,08	3,80	0,40	0,40	1120,18
Both	33,00	1,43	930,00	30,69	9,30	3,00	0,00	0,00	1007,41
Total average	13,90	1,17	493,04	36,99	9,65	0,79	0,09	0,16	545,80

Source : Own elaboration based on the questionnaire applied to Legal SMEs, 2021

The results of the sum of the eight components as: $Time(T_A) = TIT + TAR + TRC + TFA + TPI + TCT + TDI + TSR$ is equal to 464.45 average hours corresponding to 464 hours and 27 minutes for SMEs with external accountant, 1,120.18; that is 1,120 hours and 11 minutes with internal accountant and for those that have both a total of 1007.41 being 1,007 hours and 25 minutes. The total average of all the companies shows a total of 545.80 hours, corresponding to 545 hours and 49 minutes.

Calculation of the economic value of time (VA)

To make this calculation, the average annual salary of a professional accountant in the year 2021 was taken into account and divided by the time in annual hours of all the activities that an accountant must carry out per year, obtaining the following formula:

$$VA = \text{Salary of the accountant} / \text{Annual time hours for all activities} \quad (2)$$

In the case of the companies with an internal accountant, 240 hours per month were considered, which represents 2,880 hours per year; for the external accountant, 160 hours per month were used, which corresponds to 1,920 hours per year; and in the case of both, the sum of these two was made, constituting a total of 4,800 per year. The results of the application of the formula show that the average Economic Value of Time for the Companies with an internal accountant is \$ 2.89 being the highest, regarding those with an external accountant that is \$ 0.83 and for those with both accountants it is \$ 1.86. In the case of the total average for all legal SMEs, it is \$ 1.05.

Calculation of the value of administrative expenses (GA)

Administrative expenses include the costs of printing withholding sales receipts and complementary documents (CIC), accounting systems or computer packages (CSC), internet service (CSI) and mobilization related to taxes (CMI), that is:

$$\text{Administrative Expenses} = CIC + CSC + CSI + CMI \quad (3)$$

The data shows that the average of administrative expenses for companies with an internal accountant is \$602.78; with an external accountant is \$581.40 and being the highest value for SMEs with both is \$693.33. The total average corresponds to \$589.67.

Internal Cost Calculation (IC)

The internal cost calculation is the result of multiplying the annual time of the activities of the fiscal vector expense by the economic value of the time plus administrative expenses, which allows us to determine that the average internal cost for legal SMEs with an external accountant is 1,130.97; with an internal accountant is \$3,964.04 being the highest value; and with both is \$2,629.44. On the other hand, the total average for all the companies is \$1,431.85 as shown in Table 3:

Table 3. Average calculation of Internal Cost (CI)

Type of accountant	Annual Time (TA)	Economic value of time (VA)	Administrative Expenses (GA)	Internal Cost $CI = TA * VA + GA$
External accountant	464,45	\$0,83	\$581,40	\$1.130,97
Internal accountant	1120,18	\$2,89	\$602,78	\$3.964,04
Both	1007,41	\$1,86	\$693,33	\$2.629,44
Total average	545,80	\$1,05	\$589,67	\$1.431,85

Source: Own elaboration based on the questionnaire applied to Legal SMEs, 2021

• Determination of External Cost (EC)

The external costs according to CIAT - UNDESA (2014) points out are those values in which a taxpayer incurs for external advice plus other expenses, however, in the research it has considered the expenses related to training through external equipment to the company, conforming the following formula:

$$\text{External cost} = \text{Training by equipment external to the company} \quad (4)$$

The average cost for companies with an internal accountant is \$1,350.00, followed by the companies with both accountants is \$652.50, and finally for those with an external accountant is \$431.64.

• Calculation of Fiscal Vector Compliance Expenditure (GVF)

This calculation is the sum of CI+CE showing that GVF on average for legal SMEs amounts to \$1,945.21; in relation to the internal accountant it is \$5,314.04 being the highest value; for companies with an external accountant it is \$1,562.61 and with both, it is \$3,281.94 (Table 4):

Table 4. Calculation of Expenditure for Compliance with the Fiscal Vector

Type of accountant	Internal Cost(CI)	External cost(CE)	EXPENDITURE FROM COMPLIANCE OF THE FISCAL VECTOR	TOTAL EXPENSES ACCORDING TO THE SURVEY
External accountant	\$1.130,97	\$431,64	\$1.562,61	\$2.692,83
Internal accountant	\$3.964,04	\$1.350,00	\$5.314,04	\$5.384,01
Both	\$2.629,44	\$652,50	\$3.281,94	\$4.427,52
Total average	\$1.431,85	\$513,36	\$1.945,21	\$2.986,48

Source: Own elaboration based on the questionnaire applied to legal SMEs, 2021.

• Hypothesis Testing

In order to demonstrate the hypothesis of how the expenses of compliance with the fiscal vector affect the profits of legal SMEs in the Piñas Canton, period 2021, the linear regression model was used considering the variables profit and tax compliance expenses. The regression model has the following expression:

$$Y = a + b(x) \quad (5)$$

Where: Y = Profit 2021; X = Expenses of compliance with the fiscal vector.

The results of the linear regression show that the profit of the year 2021 depends on the compliance costs with the fiscal vector (sig. = 0.00) l by 17.2% (R2 = 0.172) and there is a relationship between the two variables of 41.5% (R = 0.415a). On the other hand, the profit of 2020 does not depend on the compliance cost of the tax vector (Sig. = 0.215) (see Table 5); this means that 50% of the companies' profits may depend on the expenditure of compliance and the degree of dependence varies from 2.75% to 17.2% and the 72.8% depends on other variables.

Table 5. Linear regression model

Model	R	R Square	Adjusted square	R	Standard error of the estimate	Sig.
1. 2020 Profit	,415a	0,172	0,160		1970,4356	,000b
2. 2021 Profit	,153	,024	0,009		28770,67860	,215

a. Predictors: (Constant), Expenses of compliance with the fiscal vector

Source: Own elaboration.

According to CIAT - UNDESA states that "Compliance costs can be divided into: (a) measurable/quantifiable economic costs that generate a direct impact on taxpayers' income" (2014, p. 6). On the other hand, another research analyzes the expenses of the fiscal vector with the sales as is the case of Chile: "A small company had a compliance cost of 1,932,398 Chilean pesos (3,367 USD) equivalent to 0.7% of its sales and a medium-sized company 4,253,066 Chilean pesos (7,410 USD) which is equivalent to 0.4% of its sales" (Eurosocial, 2015, p. 9). And the case of Costa Rica points out: "when it is analyzed as a percentage of sales it can be observed that compliance costs in relative terms are regressive for microenterprises (equivalent to 4.3 percent of sales)" (CIAT - UN DESA, 2014, p. 130). As shown above, profits may depend on and not in 50% of the compliance costs of the fiscal vector; therefore, these costs can generate a direct impact with a probability of 50%.

4. Discussion

The determination of the compliance cost of the fiscal vector involves the use of a methodology proposed by CIAT where the importance of an evaluation of the costs incurred by the taxpayer and the tax administration is specified (CIAT - UNDESA, 2014), in this context the results obtained in the present research show the importance of determining the fiscal compliance costs in order to know how it influences the profits. The results of the research show that these costs represent between a range of 2.75% to 17.27% on the profits in the case of Ecuador; as opposed to the "2.3% that represents of the annual gross income of an average business" in the case of Colombia, as mentioned (CCB, GBML, & SDH, 2016); between 0.4% to 0.7% over sales in the case of Chile and 4.3% over sales in Costa Rica (CIAT - UNDESA, 2014); which means, that compliance with the fiscal vector is related not only to sales and income but also to profits (Pozo Pascual, 2021). On the other hand, the determination of the costs of the fiscal vector is associated with the types of internal and external costs (Vivero & Gavilánez, 2013; Lanza González et al., 2017), since these can vary according to the payment modality, which can be paper or electronic and time.

5. Conclusions

It is shown the expenses of compliance with the fiscal vector have a 17.2% impact on the profits of legal SMEs in the Piñas canton in the 2021 period, and in this way, the hypothesis is verified. The internal cost of compliance with the fiscal vector in the legal SMEs of the Piñas canton on average

reaches USD 1,431.85, which is higher than the external cost because it takes into account the cost, time, and administrative expenses such as the cost of printing receipts, accounting systems, internet and mobilization related to taxes.

To sum up, expenses of the fiscal vector are high, and the use of external accountants is very common in the companies studied, due to the fact that a taxpayer must constantly invest time, money, and other resources to comply with its tax obligations and formal duties.

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