Article

Tax Sustainability: Tax Transparency in Latin America and the Chilean Case

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Abstract: This study is based on a sample of the thirty Chilean companies with the highest stock presence and which demonstrate opacity problems in their tax sustainability related to the GRI 207 standard available since 2019 (which emphasizes the disclosure of tax strategies to stakeholders, especially as regards any links with their small and medium-sized enterprises (SMEs)). The study also explores the literature related to tax transparency and its evolution in Latin America. Significantly different performances were found among the tax sustainability reports. The reasons for these differences are related to the fact that some demand simple declarations of principles, while others require both reporting of evidence in front of the interest groups and revealing of the tax strategy. As a result, taxpayers seem to use their corporate social responsibility activities more to moderate reputation risk than to aim at tax transparency. At the same time, the findings reveal that the actions toward tax transparency which have defined the tributary administrations of Latin American countries since the 2018 Punta del Este Global Forum do not consider the possibility of public disclosure. In this sense, the evidence highlights the need for Latin American policymakers to introduce, at the normative level, integrated tax transparency cooperation mechanisms between state administrations and regulated companies.

Keywords: tax sustainability; tax transparency; standard GRI; tax strategy; tax compliance

1. Introduction

The main twenty-five tax evaders in the United States were accounted for more than a decade ago. They operated with subsidiaries in tax havens such as Bermuda, Singapore and Luxembourg [1]. Drucker [2], a Bloomberg reporter, taking a closer look at audited accounts in a Dutch Google subsidiary, found that its incomes were directed through a ghost company in Bermuda to avoid USD 2 billion in worldwide taxes. Recently, the Pandora papers leaked more than 12 million documents related to the fortunes of politicians in 90 countries who operated with offshore companies in tax havens. This proves that tax aggressiveness is still a controversial issue, and up-to-date studies try to provide more understanding of the cultural impact by offering recommendations at the level of tax policy to improve tax audits [3–5]. The digital market can also be seen to cause some degree of inequality since it operates multinational companies in countries without paying taxes even though they are evidently present, transferring the tax load to consumers. This fact demands more transparency in their practices and in the decisions at the corporate governmental level, with appropriate performance in the adoption of a socially stable tax policy.

Sustainability reports are one of the ways in which organizations reveal their corporate social responsibility (CSR) activities related to environmental, social and governance issues (ESG). In 2019, the Global Reporting Initiative (GRI) updated its standards to include the tax subject GRI 207, valid since January 2021. This marks a relevant milestone in terms of state

transparency and adjustment in accordance with the standards of the 2030 United Nations agenda [6]. It includes disclosures on tax strategy, governance, and risk management that meet different stakeholder reporting expectations [7].

Consequently, our study focuses on the contribution of the sustainability reports in the transparency of decision making at the corporate government level and its evolution in Latin American countries, evaluating in particular the 30 Chilean companies with the highest presence in the stock market in 2020. They show opacity problems in their sustainability reports compared to the standard GRI 207 available since 2019. This study also contributes to the literature review regarding tax transparency and its evolution in Latin America, revealing that the tax transparency actions which have defined tax administration in Latin American countries since the 2018 Punta del Este Global Forum do not allow for the possibility of a direct and integrated participation with the taxpayers as a cooperative mechanism.

Section 2 presents the current literature and describes the research hypotheses. Section 3 presents the research design. Section 4 presents and discusses the results. Finally, the conclusions and avenues for future research are presented in Section 5.

2. Theory and Hypotheses Development

In a wide sense, transparency involves revealing what is hidden. In the area of taxes, different scopes may be possible depending on the publicity aimed at. Should the amount input taxes be revealed? Is there compliance with tax obligations? What are the tax strategies decided on by the corporate government? What are the reasons for those tax strategies? Are there any contingencies due to the implementation of the tax strategies? Are these contingencies due to all or only some of these strategies?

Following the transparency theory at the international level, Woods [8] states that maximum transparency is not optimal for the following reasons: new costs are generated in the divulgation, recording and administration of procedures; tax transparency affects the transparency of decision making; and tax transparency reduces the range of possible interpretations on what the law means (that is, a privacy field could open a higher number of arguments or scopes of the law).

Atria [9] stated that at present, from a sociological perspective, tax transparency represents a value and a requirement at the same time. It is a value in the sense that it represents a fundamental imperative in the everyday functioning of an entity, boosting and sustaining a group of organizational transformations and information management in different areas. In addition, it is considered a demand since it is in at the base of the requirements of citizenship or of those proposed by interest groups, especially in medium and large companies (whether public or private) as well as those from the civil society. Nevertheless, Alexander [10] warns that tax transparency itself will not necessarily lead to increased tax revenues. Research by Ronen and Yaari [11] shows that the market does not necessarily reward voluntary disclosures, even when they are verifiable. Some studies conclude that in regimes with automatic exchange of information (AEOI), such as the U.S., tax transparency has been limited and easy to circumvent [12]. Oats and Tuck [13] indicate that there is significant variation in the willingness of tax authorities to use, or ignore, the data. They add that these different priorities and capabilities among tax authorities similarly constrain their ability to absorb and process mandated disclosures under the auspices of transparency initiatives.

A complete study carried out by Müller et al. [14] concludes that there is no evidence on the manner in which tax transparency affects the decisions of directors in the face of incentives, on the decision of investors to invest in companies, on the attitude assumed by consumers, on its impact on the value of the shares, on reputation costs, or on how the recipients value the information (among other topics).

Our study starts with the assumption that tax transparency is fundamental for proper governance. We are moving into a new era in which the traditional relationships between tax administrations, tax advisors, and companies are changing and moving away from con-

frontation toward cooperation [15]. At international level, initiatives prone to achieve tax transparency in the information exchange have been presented. Some of these are the BEPS 2015 package of actions, the Common Reporting Standard (CRS) developed by OECD [16] and the Extractive Industries Transparency Initiative [17]. These tax transparency actions create value against the scrutiny demanded by society. The consequences of public scrutiny can be intense, long-lasting, and a boardroom-level concern [10]. Indeed, a study found that 34% of the UK is boycotting tax avoiders [18].

In Latin America, 325,000 million dollars of tax evasion has been estimated in 2018, which is 6.1% of the regional gross product [19]. This has motivated the regional countries to generate tax transparency policies aimed at reducing the infringement gaps. On 19 November 2018, the Tax Transparency and Information Exchange Global Forum was held in Uruguay, gathering Latin American countries with the objective of maximizing the effective use of information exchange between tax administrations in the frame of tax transparency international standards to face the evasion, elusion, corruption and other forms of illicit financial flows [20]. The member countries of the Global Forum are Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, Guatemala, Honduras, Panama, Paraguay, Peru, Dominican Republic, and Uruguay. The countries which have not subscribed to this declaration are Bolivia, El Salvador, Mexico, and Nicaragua.

In the context of the Global Forum, Latin American countries have carried out two types of actions between 2020 and 2021 to promote tax transparency, namely base actions and complementary actions [20]. Base actions pretend to establish a legal, organizational, and controlling framework which allows the jurisdictions to fully benefit from the exchange of information. On the contrary, the complementary actions look at translating the tax transparency into income revenues. Nevertheless, the OECD [20] report shows that even though almost all Latin American countries have a wide network of information exchange up to 2020, not all of the potential of these resources has been exploited to support tax auditing, research, and other compliance activities to face transnational tax evasion. This is mainly due to the effect of the COVID-19 pandemic. Many of the required disclosures are only shared among governments and tax jurisdictions around the world and are not necessarily open to the public [21]. This does not inhibit taxpayers to concrete actions of tax transparency aimed at adding value in front of the scrutiny of the public eye.

Voluntary mechanisms of tax transparency have been designed through sustainability reports, among which the Dow Jones Sustainability Index (DJSI) can be mentioned. This is recognized as an international standard launched in 1999 based on the analysis of RebecoSAM. The DJIS evaluates the larger companies of the world listed in the stock market by its corporate sustainability assessment (CSA), and since 2017 the Dow Jones Sustainability Index MILA Pacific Alliance has evaluated levels of sustainability in Brazil, Chile, Colombia, Mexico, and Peru. In 2014, the DJSI agreed on incorporating the evaluation of the company's tax strategy under the assumption that a too aggressive tax strategy could not be sustainable in the middle or long term.

The evaluation of the DJIS tax strategy considers three questions: first, companies are asked to reveal their policy or tax strategy in public or private form or to declare that a formal tax policy does not exist. The assessment indicates that the question is intended only to measure transparency and not the firm's approach to taxation [22]. Second, the presence of regional or national tax reports is evaluated as well as the variations among jurisdictions with the purpose of encouraging companies to be transparent regarding where they are paying their taxes and why payments may vary between a country or region. Third, companies are asked if middle and long-term risks have been evaluated in their tax strategies.

To report the tax strategy according to the DJSI constitutes a relevant factor of tax sustainability. However, in the last years, Latin American countries have chosen, mainly, to apply sustainability reports according to the GRI. As of 2020, it is observed that Latin American countries capitalize more than 30,000 million USD in the stock market, only 37.5% have at least one sustainability report, that is, 286 out of 762 companies in Argentina, Chile,

Colombia, Mexico and Peru. Of these, 73.1% have sustainability reports based on the GRI normative, as it is shown in Figure 1.
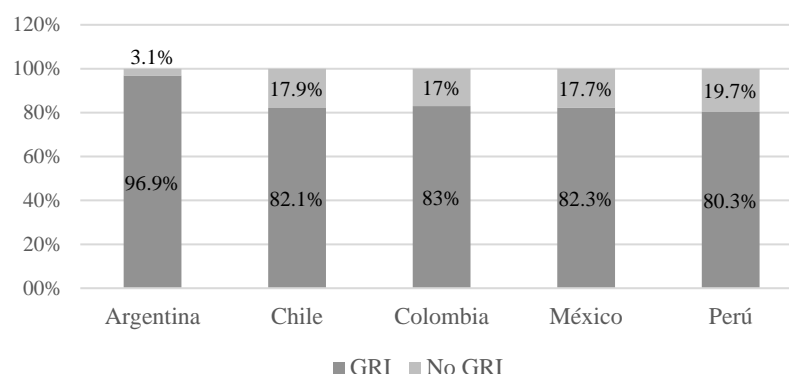

Figure 1. Companies that report the GRI standard. Source: GRI, AG Sustentable [23].

According to the GRI, sustainability reports reveal the impact of an organization on the economy, the environment or the society. GRI matches its categories with three prominent frameworks, the ten principles of the United Nations Global Compact (UNGC), UN Guiding Principles on Business and Human Rights, and OECD Guidelines for Multinational Enterprises [22]. Within that perspective, GRI reveals the positive or negative contributions, allowing stakeholders to formulate their own opinions about them.

GRI is structured in universal and thematic standards. In the case of universal standards, their implementation is applicable to any organization that prepares a sustainability report and corresponds to the following: GRI 101: Fundamentals, which includes essential information on how to use and make reference to the standards; GRI 102: General Contents, which are aimed at presenting contextual information about the organization; and GRI 103: Management Focus, which is meant to provide information about the management of each thematic standard. These standards are organized in three series: GRI 200, economic themes; GRI 300, environmental themes; and GRI 400, social themes.

In 2019, GRI updated its standards including its index in the tax topic GRI 207, enforced since January 2021, which derives from GRI standard of the series 200 on economic issues. According to the new disclosure GRI 207, the information to be revealed is structured in two areas, on the one hand, contents related to the tax management focus and on the other hand, contents related to reports country by country. The focus on tax management is essential since the information looks for a description from the organization in terms of the way in which it balances the tax compliance, the company's activities and ethics, social and sustainable expectations. To achieve this, it is possible to include the tax principles of the organization, its attitude in tax planning, the degree of risk that the organization is willing to take, and the approach of the organization related to the tax authorities.

Even though this new disclosure GRI 207 was elaborated as a response to the concerns regarding the negative impact of the fiscal evasion in the sustainable development [24], a study carried out in 25 OECD countries reveals that nor the ESG dimensions or the CSR general measure demonstrates to be a significant direct determinant in the fiscal evasion [4]. Indeed, Montenegro [4] compares different studies of Australian [25], Chinese [26], British, and French [5] companies, which have reported a negative relationship between CSR and fiscal evasion.

Some experts state that a higher transparency in the sustainability reports could be an effective mechanism to mitigate the reputation risk related to taxes [27,28]. Interview-based studies conducted with almost 600 corporate tax executives, revealed the importance of tax planning in the reputation of managers [29]. Therefore, if an organization does not pay enough attention to those ethical responsibilities it may result in a moral bankruptcy breaking the trust with the interest groups [30] and generating an unavoidable tension between the creative intention of the organization and ethics [31]. A strong reputation is

recognized as the most valuable asset of a firm [32]. Therefore, to generate transparency in corporate decision making is a positive practice adding value to the company in front of the public eye.

Bird and Davis-Nozemack [22] state that sustainability analysis is what reveals the effects of possible tax elusion actions. This can have an impact on three common spaces. First, tax avoidance erodes the public commons by depriving elected governments of resources necessary to deliver shared public services for the benefit of all of the society, including firms. Second, the work of tax avoidance experts corrodes trust between regulator and regulated and creates the need for increasingly complex regulatory language that imposes transaction costs on all firms. Third, firms that aggressively avoid tax payments are at risk of fostering a culture with reduced respect for rules.

Based on the previous point, companies contribute to social well-being through tax payment and elusion is a problem in terms of sustainability. However, paying taxes to the state can only increase social welfare if the government actually uses the taxes to pay for the benefit of the community [33], in this sense, if the company does not believe that the government can allocate taxes for the benefit of the community, the company will evade taxes and use its tax evasion money to carry out its own CSR [22,32]. Consequently, it is necessary to have clearer governmental announcements related to the reasons and effects of the changes in the tax policy, using annual budgets as an opportunity to educate citizens about the tax system instead of tools to manipulate the public [34].

Following this path, the companies which decide to implement tax transparency procedures in decision making by using sustainability reports can encourage its commitment with social well-being and they can also consolidate their reputation as an essential asset. However, the situation in Latin American countries and, in particular, in the most important Chilean companies, is not perceived as showing significant differences between companies that present tax sustainability reports and those that do not. This can be seen in the following hypothesis:

Hypothesis 1 (H1). *The CSR is associated with the tax sustainability reports revealed by the companies of the sample.*

Hypothesis 2 (H2). *The sustainability reports under the disclosure GRI 207 in Chilean companies are associated with reputation factors.*

3. Methodology

The sample includes the 30 Chilean companies with the highest stock market presence according to the *Índice de Precio Selectivo de Acciones* (IPSA), representing a reliable sample of the behavior of the largest companies in Chile. The selection of these companies is due to the fact that Chile has assumed high demands at international level in terms of tax transparency. In fact, Chile has been one of the first Latin American countries to become part of OECD since 2010, assuming the package of measures of the 2015 Base Erosion and Profit Shifting (BEPS) project and in the year 2020 this country subscribed to the Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting ("Multilateral Instrument" or "MLI").

In this context, the Chilean companies that are part of this sample are among those whose sustainability reports are mostly subject to a disclosure GRI. It is important to mention that disclosure GRI 207 on tax sustainability has been available since 2019, but has been valid since January 2021. The reviewed reports correspond to the 2020 period, which reveals the behavior of companies in terms of tax transparency in the face of the mandatory nature of the law in 2021. Besides, this permits to open the possibility for future investigations to compare different tax periods.

As it can be seen in Figure 2, out of 30 companies, 37% provide sustainability reports under disclosure GRI; 40% present integrated annual memories under disclosure GRI, and 23% do not present any sustainability reports.

Figure 2. Companies with and without sustainability reports under the GRI standard. Source: author's own creation.

A correlation of each of the sample companies was carried out with the disclosure GRI 207 dimensions shown in Table 1 with the intention of detecting differences among various groups of variables. GRI 207 dimension 1 GRI 207 requires the revelation of information about the tax strategy; dimension 2 GRI 207-2 involves information about tax governance, management and risk control; dimension 3 GRI 207-3 asks for information relates to the participation of groups of interest and the management of concerns in tax matters; and dimension 4 GRI 207-4 involves country-by-country reporting.

Table 1. Dimensions of the GRI Standard. Source: GRI 2019 [35].

Dimension 1: GRI 207-1
1.1. Reports summary of tax strategy
1.2. Fully reports the tax strategy
1.3. Reports commitment in tax compliance
1.4.1. Reports economic and social impact of the tax strategy
1.4.2. Tax approach is consistent with sustainable development commitments
Dimension 2: GRI 207-2
2.1.1. Identifies the executive responsible for tax strategy
2.1.2.1. Develop trainings
2.1.2.2. Report incentives to executives
2.1.2.3. Plan succession of tax executives
2.1.2.4. Participate in tax transparency initiatives with stakeholders
2.1.3.1. Report tax risks
2.1.3.2. Reports supervision of tax risks
2.1.4. Reports supervision of tax executives
2.2. Reports the mechanisms for reporting illegal behavior
2.3. Reports audit processes in tax matters
Dimension 3: GRI 207-3
3.1.1. Reports commitments with tax authorities
3.1.2. Reports focus on the defense of tax policies
3.1.3. Reports processes to collect stakeholder opinions
Dimension 4: GRI 207-4
4.1. Reports all resident jurisdictions for tax purposes
4.2. Reports tax information for each jurisdiction
4.3. Reports period of the information delivered

The Cochran Q test was used to detect the differences among various groups of dichotomous matched variables, as in the case of Okeh et al. [36] which shows the use and

effectiveness of this method in the data analysis. McNemar test was used to analyze data in various groups. There are studies which demonstrate its efficacy in areas such as ecology and sociobiology providing answers for many research questions [37]. It is important to highlight that in the case of smaller data samples (N less than 25), a binomial test is applied, which allows the study of differences between the two groups of dichotomous variables with matched data [38,39].

In the case of not normally distributed data, an alternative to Anova must be looked for in order to contrast if the different groups are equally distributed based on dependent data. The Friedman Test [40] was used, as demonstrated in various applications [41]. In the same situation, it was necessary to have a nonparametric test different from t-test [42] to contrast if two samples come from an equally distributed population. The Wilcoxon Test was administered for this purpose [43,44].

Finally, it was necessary to apply a homoscedasticity test to different groups in order to verify the variance homogeneity (that is the Levene Test) [45]. Besides, to contrast if different groups were equally distributed without depending on the data, the Kruskal-Wallis test was used, which has been employed in other educational centers [46]. This decision was made based on the lack of normality presented by the distribution of groups.

4. Results and Discussion

4.1. Dimension 1: GRI 207-1

In the analysis of disclosure GRI 207-1 and the sum in the compliance of the sub-standards in each company, we found the information shown in Table 2. Out of five substandards assessed (1.1, 1.2, 1.3, 1.4.1, and 1.4.2) the average of compliance of the companies is 1.43, which means that, on average, the companies complied with 28,7% of the evaluations of disclosure GRI 207-1. Twelve companies not complying with any of the substandards were detected and only two companies comply with all of them (these are Embotelladora Andina S.A. and Inversiones La Construcción S.A).

Table 2. Descriptive measures GRI 207-1.

Mean	Sd	Median	Min	Max
1.43	1.65	1	0	5

Source: author's own creation.

It is also observed in Figure 3 that the highest percentage of companies (67%) would be between 0 to 1 of compliance with the evaluations of disclosure GRI 207-1.
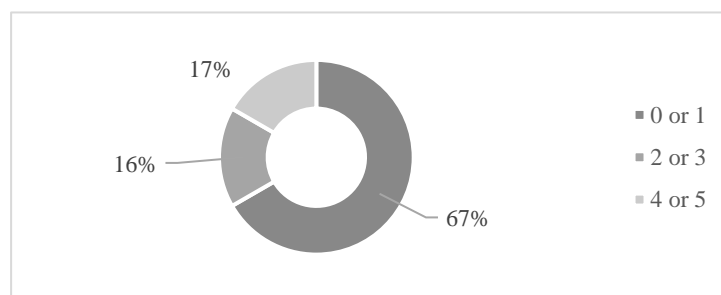

Figure 3. Frequency ratio GRI 207-1. Source: author's own creation.

To analyze each sub-standard in particular, the compliance and not compliance proportion is checked as you can see in Figure 4. A different behavior of the substandard 1.3 is observed, which seems to have a higher compliance proportion.

To verify this difference between the sub-standards, an analysis considering the dependence of what is informed by the companies in each sub-standard was carried out. This takes us to apply a Cochran Q Test to determine if the proportion of companies complying (or not) is the same in the different sub-standards, focusing as well in the variation of the

different companies between one sub-standard and other. This process shows that the compliance of at least two sub-standards is different (*p*-value 1.341×10^{-7}). The binomial test (replacing McNemar due to the number of data) in pairs was applied to verify the different groups. The *p*-values of this test can be seen in Table 3.
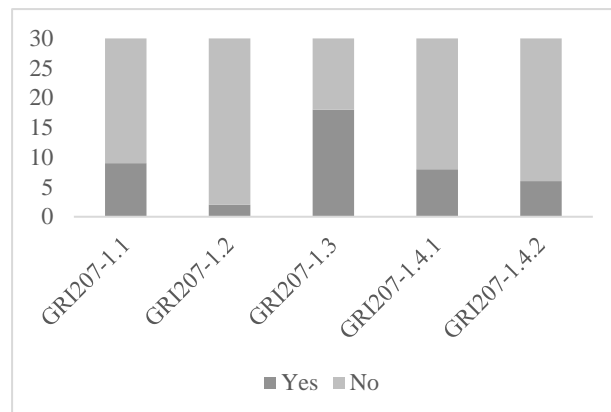

Figure 4. Proportion of compliance for each GRI 207-1 sub-standard. Source: author's own creation.

Table 3. Group pair binomial *p*-value test for each GRI 207-1 sub-standard.

	1.1	1.2	1.3	1.4.1
1.2	0.0156	-	-	-
1.3	0.0039	0	-	-
1.4.1	1	0.0313	0.0020	-
1.4.2	0.375	0.125	0.0005	0.5

Source: author's own creation.

A significant change in the level of compliance of the companies is observed in sub-standard 1.3 compared to the rest of the sub-standards. The same situation occurs in sub-standard 1.2, except when analyzed with sub-standard 1.4.2, where there is no significant change. No difference in the groups was found in sub-standard 1.1, 1.4.1, and 1.4.2 and Cochran Q test (*p*-value 0.2466).

In this way, sub-standard 1.3 would have a significantly higher compliance in the studied companies compared with the rest of the evaluated sub-standards of the sample. Besides, the sub-standard 1.2 would have a lower compliance in relation to most of the sub-standards.

4.2. Dimension 2: GRI 207-2

When analyzing disclosure GRI 207-2 and the sum of the compliance of the sub-standards in each company, the information shown in Table 4 was determined. Out of the ten sub-standards evaluated (2.1.1, 2.1.2.1, 2.1.2.2, 2.1.2.3, 2.1.2.4, 2.1.3.1, 2.1.3.2, 2.1.4, 2.2, and 2.3), the compliance average of the companies is 2.13, which means that, on average, the companies complied with 21,3% of the evaluations in terms of disclosure GRI 207-2. Six companies not complying with any of these sub-standards are observed. Ten companies complied with only one sub-standard and the maximum was achieved by Embotelladora Andina S.A., fulfilling with eight sub-standards, followed by Itaú Corpbanca with seven and SMU S.A with six sub-standards.

Table 4. Descriptive measures GRI 207-2.

Mean	Sd	Median	Min	Max
2.13	2.16	1	0	8

Source: author's own creation.

It is also observed in Figure 5 that the highest percentage of companies (70%) would be between 0 to 2 of compliance with the evaluations of disclosure GRI 207-2.
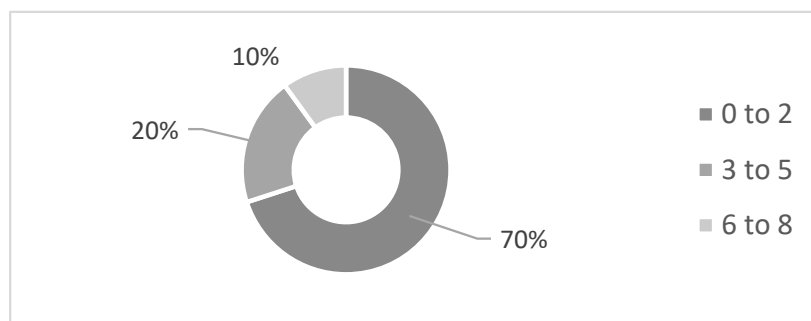

Figure 5. Frequency ratio GRI 207-2. Source: author's own creation.

To analyze each sub-standard in particular, the compliance and not compliance proportion is seen in each sub-standard evaluated as it is displayed in Figure 6. A different performance of sub-standard 2.2 is observed, which seems to have a higher compliance proportion.
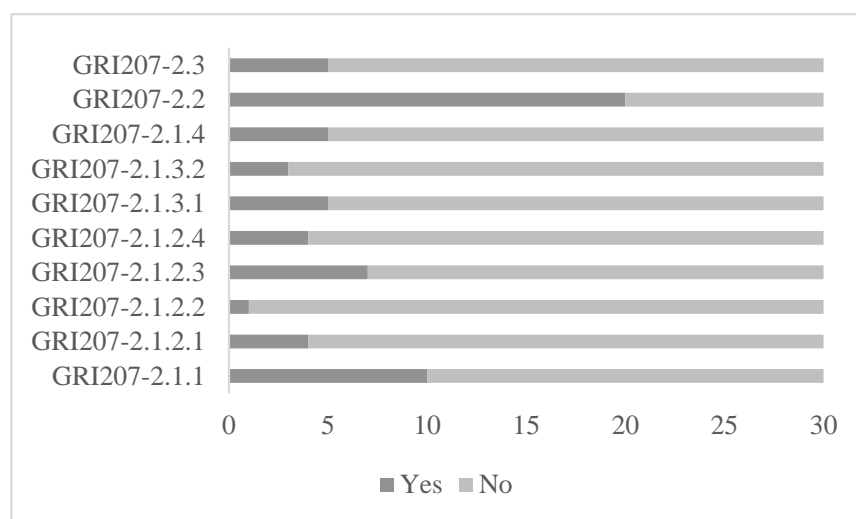

Figure 6. Proportion of compliance for each GRI 207-2 sub-standard. Source: author's own creation.

To verify if the difference among the sub-standards is statistically significant, a test is carried out considering the dependence of what has been informed by the companies in each sub-standard. This leads us to apply a Cochran Q Test to determine if the proportion of companies which comply (or not) is the same in the different sub-standards, focusing, at the same time, in the variation of the different companies between one sub-standard and other. This reveals that the fulfillment of at least two sub-standards is different (p-value 4.022×10^{-10}). To achieve this purpose, a binomial pair test was applied to verify different groups (replacing McNemar due to the number of data). The p-value of this test is seen in Table 5.

It can be observed that the level of compliance of the companies in sub-standard 2.2 in relation to the other sub-standards changes the performance of the companies significantly. The same occurred in sub-standard 2.1.1 compared to the other sub-standards. Without considering these two last significant sub-standards, the Cochran Q Test did not determine any differences among the rest of the groups (p-value 0.3489). Therefore, the rest of the sub-standards perform in a similar way.

Table 5. Group pair binomial *p*-value test for each GRI 207-2 sub-standard.

	2.1.1	2.1.2.1	2.1.2.2	2.1.2.3	2.1.2.4	2.1.3.1	2.1.3.2	2.1.4	2.2
2.1.2.1	0.0313	-	-	-	-	-	-	-	-
2.1.2.2	0.0039	0.2500	-	-	-	-	-	-	-
2.1.2.3	0.5488	0.5078	0.0703	-	-	-	-	-	-
2.1.2.4	0.0703	1	0.375	0.5078	-	-	-	-	-
2.1.3.1	0.125	1	0.125	0.7266	1	-	-	-	-
2.1.3.2	0.0156	1	0.5	0.2188	1	0.625	-	-	-
2.1.4	0.0625	1	0.125	0.7266	1	1	0.625	-	-
2.2	0.0309	0	0	0.0010	0	0.0003	0.0000	0.0007	-
2.3	0.0625	1	0.125	0.7266	1	1	0.625	1	0.0007

Source: author's own creation.

4.3. Dimension 3: GRI 207-3

Analyzing disclosure GRI 207-3 and the sum in the compliance of the sub-standards in each company, the information shown in Table 6 was found out. Out of the three sub-standards (3.1.1, 3.1.2 and 3.1.3) evaluated, the compliance average of the companies is 0.4, which is, on average, that the companies comply with 13% of the evaluations of disclosure GRI-207-3. Twenty companies do not comply with any of these sub-standards, nine companies only with one sub-standard and only Itaú Corpbanca achieves all of the sub-standards.

Table 6. Descriptive measures GRI 207-3.

Mean	**Sd**	**Median**	**Min**	**Max**
0.4	0.67	0	0	3

Source: author's own creation.

It is also observed in Figure 7 that the highest percentage of companies (67%) would be up to 0 in compliance with the evaluations of disclosure GRI 207-3.
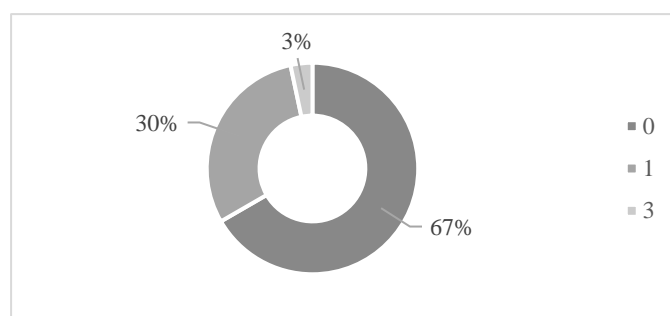
Figure 7. Frequency ratio GRI 207-3. Source: author's own creation.

To analyze each sub-standard in particular, the compliance and non-compliance of each sub-standard is seen as in Figure 8. A similar performance among them can be seen, even though GRI 207-3.1.1 seems to have a higher proportion of positive compliance and lower negatives compared to other sub-standards. In this case, the companies participate in cooperative compliance agreements with the Chilean tax authority such as the Social Responsibility Program with SMEs [47].
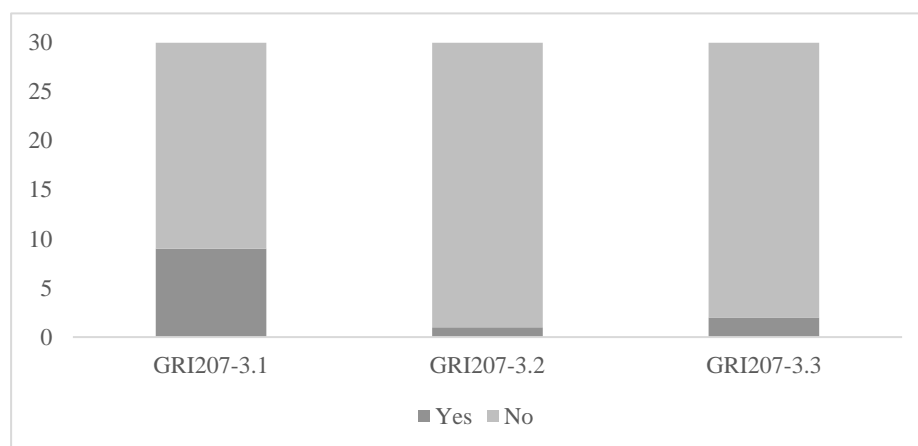
Figure 8. Proportion of compliance for each GRI 207-3 sub-standard. Source: author's own creation.

To verify if the difference among the sub-standards is statistically significant, the analysis considers the dependence of what has been informed by the companies in each sub-standard. This leads to a Cochran Q Test to determine if the proportion of companies complying with the norm and the ones not complying is the same in the different sub-standards, focusing as well on the variation in the different companies between one substandard and other. This reveals that the compliance of at least two sub-standards is different (*p*-value 0.001776). To achieve this objective, a binomial pair test was applied to verify different groups (replacing McNemar due to the number of data). The *p*-value of this test is seen in Table 7.

Table 7. Group pair binomial *p*-value test for each GRI 207-3.

	3.1.1	3.1.2
3.1.2	0.0078	-
3.1.3	0.0991	1

Source: author's own creation.

A significant change in the compliance of the companies is detected for sub-standards 3.1.1 and 3.1.2. It should be mentioned that 3.1.1 and 3.1.3 is quite close to significance and in the case of 3.1.2 and 3.1.3 an equality in the performance with a *p*-value elevated is accepted.

4.4. Dimension 4: GRI 207-4

To analyze disclosure GRI 207-4 and the sum in the compliance of the sub-standards in each company, the information displayed on Table 8 was determined. Out of three sub-standards evaluated (4.1, 4.2, and 4.3), the compliance average of the companies is 2.1 which is, on average, 71% of compliance in the evaluations of the disclosure GRI 207-4. It is also observed that two companies do not achieve any of the sub-standards, twelve companies comply with two sub-standards, and twelve companies comply with all of the sub-standards.

Table 8. Descriptive measures GRI 207-4.

Mean	Sd	Median	Min	Max
2.13	0.9	2	0	3

Source: author's own creation.

It is also observed in Figure 9 that the highest percentage of companies (40%) in compliance with the evaluations of disclosure GRI 207-4 would be up to two.
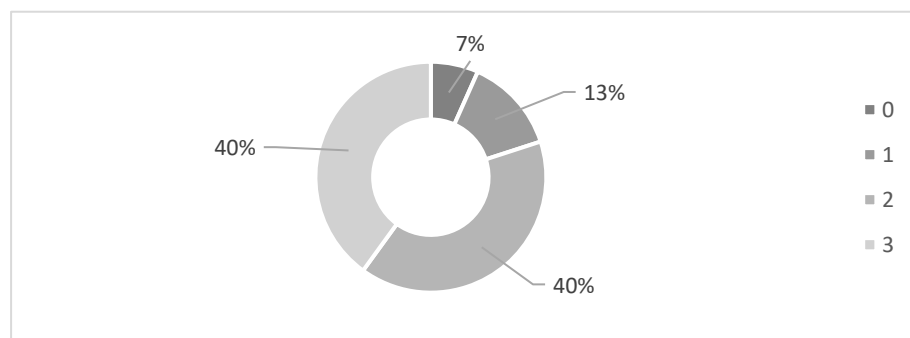
Figure 9. Frequency ratio GRI 207-4. Source: author's own creation.

To verify if the difference among the sub-standards is statistically significant, the analysis considers the dependency of what was informed by the companies in each sub-standard. This leads to a Cochran Q Test to determine if the proportion of companies complying with the norm and the ones not complying is the same in the different sub-standards, focusing as well on the variation in the different companies between one sub-standard and other. This reveals that the compliance of at least two sub-standards is different (p-value 2.26×10^{-6}). To achieve this objective, a binomial pair test was applied to verify different groups (replacing McNemar due to the number of data). The p-value of this test is seen in Table 9.

Table 9. Group pair binomial p-value test for each GRI 207-4.

	4.1	4.2
4.2	0.0005	-
4.3	0.125	0

Source: author's own creation.

It is observed that category 4.2 changes significantly the compliance of the companies compared to any of the other sub-standards. These perform in a similar way.

4.5. General Analysis

To analyze the performance between each sub-standard the compliance proportion variable will be studied in each company regarding GRI disclosure and sub-standards, as it can be seen in Figure 10.
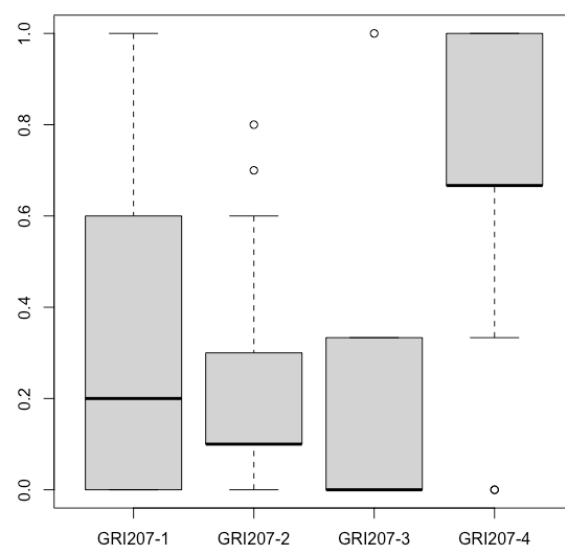

Figure 10. Boxplot compliance ratio with respect to GRI disclosure and sub-standards.

Due to the lack of normality a nonparametric test is chosen. As the data are matched, Friedman Test is applied to verify if there are significant differences. Considering the previous graph, it is highly probable to find a difference among the performance of the different GRI disclosures, especially regarding GRI 207-4 sub-standards.

Friedman Test finds significant differences among at least two groups (p-value $< 2.2 \times 10^{-16}$). To identify the groups with differences, a pair Wilcoxon Test will be applied with the results shown in Table 10.

Table 10. Wilcoxon *p*-value test pairs of sub-standards.

	GRI207-1	**GRI207-2**	**GRI207-3**
GRI207-2	0.213	-	-
GRI207-3	0.022	0.111	-
TC	0.000074	0.000024	0.000025

Source: author's own creation.

This allows us to conclude that the compliance of disclosure GRI 207-4 has a significantly different performance compared to all of the other analyzed norms. Besides, in terms of disclosures GRI 207-1, 207-2, and 207-3, lower levels of compliance are observed compared to disclosure GRI 207-1 in the studied companies. Considering GRI 207-2, no significant differences are presented in front of disclosures GRI 207-1 and GRI 207-3.

Finally, this same variable is studied in terms of the compliance at the added level of disclosures GRI to determine if there is a difference among the companies with sustainability reports or an integrated report in the memory or in any of such options. In Figure 11, the distribution of the compliance of these companies can be seen.
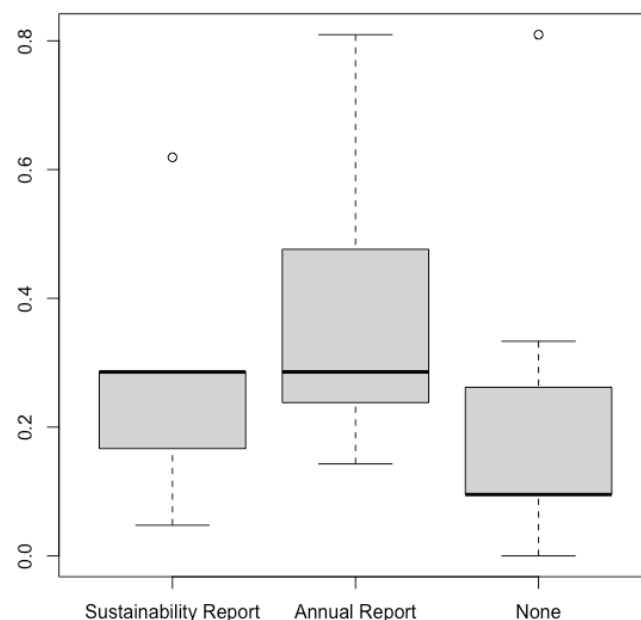

Figure 11. Boxplot compliance ratio of companies with sustainability reports or an integrated report in the memory or in any of such options.

It can be observed in Table 11 that companies with neither report nor integrated memory seem to have less compliance measures (albeit not at a significant degree when the measures are compared). It is important to mention that this last group has a higher maximum point compared to the ones with report, which is aberrant in the distribution analysis.

Table 11. Descriptive measures for each group.

	Mean	Sd	Median	Min	Max
SR	0.26	0.14	0.29	0.05	0.62
AR	0.36	0.2	0.29	0.014	0.81
None	0.23	0.28	0.1	0	0.81

To analyze this possible difference, first the Levene Test is applied to check the variance homogeneity, which does not give us the indication of lack of homogeneity (*p*-value 0.6742); therefore, the Kruskal-Wallis was applied to find the difference among the groups. This test does not show any significant difference in the performance and distribution of the groups (*p*-value 0.1212).

5. Conclusions

This study was carried out considering the different disciplines which have a direct impact on tax sustainability: tax transparency, CSR, tax compliance, tax evasion and its determinants, as well as the scarce research in Latin America on these issues. From this perspective, using a sample of the 30 Chilean companies with the highest presence in the stock market according to *Índice de Precio Selectivo de Acciones* (IPSA), this paper examined its sustainability reports under the new disclosure GRI 207 on tax sustainability available since 2019, enforced in January 2021. The revised reports are from 2020, revealing that 37% of the companies inform sustainability reports under GRI disclosure: 40% present integrated annual memories under disclosure GRI and 23% do not present sustainability reports. Afterwards, a correlation in each of the companies was carried out with the dimensions of GRI 207 disclosure. The objective was to detect differences among the several groups of variables.

The results show that the compliance of disclosures GRI 207-4 has a significantly different performance compared to disclosures GRI 207-1, 207-2, and 207-3. This higher level of compliance of disclosure GRI 207-4 is the result of the information provided by the financial state which forces the companies, following the international accounting regulations, to consolidate its results of abroad investments. On the contrary, in the case of disclosures GRI 207-1, 207-2, and 207-3, the focus is on divulging, in a transversal way, the tax strategy which is seen on a smaller scale.

In addition, when comparing disclosures GRI 207-1, 207-2 y 207-3, and GRI 207-3, significantly lower levels of compliance are found compared to GRI 207-1. However, the main impact is seen on the sub-standard "1.3. Reports Commitment in Tax Compliance", which demands to describe if the organization tries to comply with the letter and spirit of the law. This situation implies a declaration of principles, different from the amount of evidence required by disclosure GRI 207-3 in terms of the participation with the groups of interest. However, in the case of GRI 207-3.1.1, a higher proportion of compliance is observed where companies participate in cooperative compliance agreements with the Chilean tax authority (such as the Social Responsibility Program with SMEs).

The study also corroborates that the tax transparency actions defined by the tax administration of Latin American countries since the 2018 Punta del Este Forum do not consider the possibility of a direct and integrated participation of the taxpayers as a cooperation mechanism. However, there are other cooperation mechanisms among taxpayers and the tax administration such as the advance pricing agreement (APA) aimed at avoiding any transference price dispute and the pre-filing agreement program (PFA) designed for the taxpayers to ask for the consideration of an issue avoiding any transfer price disputes and controversies in an audit process. In contrast, the results highlight the need for the Latin American policy makers to introduce, at normative level, tax transparency integrated cooperation mechanisms between tax administrations and regulated companies. This is based on the assumption that taxpayers tend to use CSR to moderate the reputation risk and not due to tax transparency.

Although the study included the comparative analysis on the level of compliance of GRI disclosures, the analysis did not consider the taxpayers motivations, which required a more careful interpretation. For the same reason, future research could consider a wider sample, comparing periods 2020 and 2021, and should also look into the reports or integrated memories the motivations regarding the increase or decrease in the compliance of disclosures GRI.

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