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Towards the Voluntary Adoption of Integrated Reporting: Drivers, Barriers, and Practices

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Abstract: Integrated reporting is essentially a voluntary practice worldwide. For this reason, although it is growing, its diffusion is slow. Based on the Portuguese context, where a reduced number of listed companies publish integrated reports, this study aims to explore the drivers and barriers for the voluntary adoption of integrated reporting and the reporting practices up to the production of an integrated report. To this end, an analytical framework based on the Diffusion of Innovation Theory was developed and applied to data collected from a survey and corporate reports from both "adopters" and "non-adopters". The evidence collected suggests that the adoption of integrated reporting may be driven by the perception of a relative advantage over traditional reporting in terms of providing more relevant information to capital providers, particularly banks. The publication of an integrated report appears to be the result of a process of incremental improvements in the practice of disclosure and assurance of non-financial information, so that the previous experience with sustainability reporting is also an important driver for voluntary integrated reporting. Finally, companies may be differently prepared for transition to integrated reporting and, therefore, have different perceptions of its cost and complexity, which may act as a barrier.

Keywords: integrated report; IIRC; <IR> framework; voluntary disclosure; sustainability reporting; Portugal

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1. Introduction

Integrated reporting can be seen as the most recent development in corporate reporting. It emerges as a reporting mechanism that seeks to address the shortcomings of current accounting systems, namely, their backward-looking nature, short-term orientation, and failure to capture intangible factors that are the main drivers of organizational performance (de Villiers et al. 2014). In addition, integrated reporting seeks to overcome other problems in financial reporting such as information overload resulting from the production of numerous and disconnected reports that are growing in length and complexity and the need to incorporate more information on sustainability aspects that can support the transition to sustainable economic models (de Villiers and Hsiao 2018).

Despite its benefits and its growing adoption around the world, the number of companies producing integrated reports is still small, as it is essentially a voluntary practice. South Africa is an exception to this rule, where integrated reporting has been mandatory for companies with securities listed on the Johannesburg Stock Exchange on a "comply or explain" basis since 2010 (Veltri and Silvestri 2020).

In Portugal, the entry into force of Directive 2014/95/UE (the Non-Financial Reporting Directive), with effect from the 2017 financial year, has contributed to an increase in the level of non-financial information disclosure by listed companies (Carmo and Ribeiro 2022). However, the preparation of an integrated report in accordance with the <IR> framework of the International Integrated Reporting Council (IIRC) is still a voluntary practice in the Portuguese context. An analysis of the reports published by Portuguese companies listed on Euronext Lisbon for the financial year 2021 shows that out of 44 companies, only 4 presented an integrated report, which leads us to question the reasons that justify such a low adherence to this reporting model.

In this context, this study aims to explore the drivers and the barriers to the adoption of integrated reporting, as well as the evolution of reporting practices until the adoption of integrated reporting by Portuguese listed companies, by answering the following research questions (RQ):

RQ1: What are the reasons for adoption and the perceived advantages, disadvantages, and difficulties in implementing integrated reporting by Portuguese listed companies?

RQ2: What are the reasons for the non-adoption of integrated reporting by Portuguese listed companies?

RQ3: How are the corporate reporting practices of Portuguese listed companies evolving towards the adoption of integrated reporting?

To achieve our objective, we developed an analytical framework based on the Diffusion of Innovation Theory, which was applied to data from both "adopters" and "non-adopters" of integrated reporting. The data were collected through a survey and content analysis of corporate reports from Portuguese companies listed on Euronext Lisbon.

This study contributes to a better understanding of the phenomenon of integrated reporting adoption around the world and addresses the gap in the literature regarding the need for additional research in contexts other than the voluntary context of developed countries or the mandatory context of South Africa (Navarrete-Oyarce et al. 2021; Nwachukwu 2021; Velte and Stawinoga 2017). This study presents the views of both "adopters" and "non-adopters", contributing to a better understanding of how this reporting phenomenon is interpreted and adding to the previous evidence on preparers' perceptions in other voluntary contexts (Adhariani and de Villiers 2019; Arora et al. 2021, 2022; Bananuka et al. 2019; Chaidali and Jones 2017; Fuhrmann 2019; Robertson and Samy 2020; Vitolla and Raimo 2018). To the best of our knowledge, it is the first study to analyze the phenomenon of the adoption of integrated reporting in Portugal and one of the few to provide evidence on it in the specific context of the application of Directive 2014/95/UE (Lopes and Penela 2022; Velte and Stawinoga 2017).

2. Literature Review

2.1. "Adoption" of Integrated Reporting

The book authored by Eccles and Krzus (2010) and the case study of Novo Nordisk (Dey and Burns 2010) could be seen as the starting point for the emergence of academic and professional studies emphasizing the need for integrated reporting. In turn, the creation, in 2010, of the International Integrated Reporting Committee, now the International Integrated Reporting Council (IIRC), has been instrumental in developing the concept and providing guidance on the implementation of integrated reporting at the global level (IIRC 2011, 2012a, 2012b). In 2011, the IIRC launched a pilot program, in action until 2014, to encourage organizations to engage in integrated reporting, support them, and receive their feedback (IIRC 2012c, 2013a). In December 2013, the IIRC published the first official <IR> framework, a key milestone for the preparation and disclosure of integrated reports (IIRC 2013b). The revised version of the <IR> framework was published in January 2021 to apply to reporting periods beginning on 1 January 2022. In 2021, the IIRC merged with the Sustainability Accounting Standards Board (SASB) to form the Value Reporting Foundation (VRF), and in 2022, the VRF merged with the International Financial Reporting Standards (IFRS) Foundation. As a result, the responsibility for the <IR> framework currently lies with the IFRS Foundation.

Since 2013, with the publication of the <IR> framework, the "adoption" of integrated reporting consists of producing an integrated report in accordance with the objectives, concepts, and principles of the <IR> framework. However, throughout the process leading up to the publication of the framework, the concept of the "adoption" of integrated reporting underpinned several practices, as described by the IIRC (2011): combining the sustainability report with the management commentary or the full annual report; publishing a concise, standalone, integrated report as an addition to a statutorily required annual report or regulatory filing (for organizations not currently producing a separate sustainability report); modifying the sustainability report or the management commentary by tailoring it in accordance with the guiding principles and content elements of integrated reporting (for organizations with experience in sustainability reporting); or adopting integrated reporting only internally to underpin management information.

The <IR> framework (IIRC 2021, p. 2) states that integrated reporting aims to:

> [1] improve the quality of information available to providers of financial capital to enable a more efficient and productive allocation of capital; [2] promote a more cohesive and efficient approach to corporate reporting that draws on different reporting strands and communicates the full range of factors that materially affect the ability to create value over time; [3] enhance accountability and stewardship for the broad base of capitals (financial, manufactured, intellectual, human, social and relationship, and natural) and promote understanding of their interdependencies; and [4] support integrated thinking, decision-making and actions that focus on the creation of value over the short, medium and long term.

An integrated report differs from other reports and communications because it emphasizes the importance of integrated thinking within the organization; focuses on the ability of an organization to create value in the short, medium, and long term; and relies on concepts such as conciseness, strategic focus and future orientation, connectivity of information, and the capitals and their interdependencies (IIRC 2021). Despite its orientation towards the information needs of financial capital providers, an integrated report benefits all stakeholders interested in an organization's ability to create value over time, including employees, customers, suppliers, business partners, local communities, legislators, regulators, and policymakers (IIRC 2021).

The "adoption" of integrated reporting and the "quality" of integrated reporting are different concepts that were addressed in empirical studies (Velte 2021). The focus of this study is on "adoption" rather than "quality". By "adoption", we mean the preparation and publication of what an organization calls an "integrated report" without regard to the quality of its content. For periods after the publication of the <IR> framework, an integrated report should be a designated and identifiable communication, and any communication claiming to be an integrated report and referring to the framework should apply the prescribed requirements.

Integrated reporting is a voluntary practice worldwide, except in South Africa where it has been mandatory since 2010 on a "comply or explain" basis for companies listed on the Johannesburg Securities Exchange (Burke and Clark 2016; Veltri and Silvestri 2020). Therefore, depending on the context being analyzed, "adoption" may be voluntary or mandatory. For example, Steyn (2014) documented managers' perceptions of motivations, perceived benefits, and changes in implementation during the first two years of the mandatory integrated reporting in South Africa.

One specific context of voluntary adoption of integrated reporting that has been addressed by empirical studies is that of the organizations that participated in the IIRC pilot program. For example, Dragu and Tiron-Tudor (2013) analyzed the impact of external political, cultural, and economic factors on the decision of organizations in different countries to participate in the program; Gibassier et al. (2018) documented the process of adopting integrated reporting in a pilot organization; and Arora et al. (2021) examined how the pilot experience has changed preparers' perceptions of integrated reporting.

Following the publication of the <IR> framework, two strands of empirical research have explored the drivers and barriers to voluntary adoption of integrated reporting: studies on the company and country level determinants of voluntary adoption of integrated reporting (e.g., Bananuka et al. 2019; Fernandes and Barbosa 2022; García-Sánchez et al. 2021; Girella et al. 2019, 2022; Kılıç et al. 2021; Nishitani et al. 2021; Oktorina et al. 2022); and studies on preparers' perceptions of the benefits and implementation challenges of integrated reporting (e.g., Adhariani and de Villiers 2019; Arora et al. 2021, 2022; Bananuka et al. 2019; Chaidali and Jones 2017; de Graaff and Steens 2023; Fuhrmann 2019; Robertson and Samy 2020; Vitolla and Raimo 2018).

2.2. Drivers, Barriers, and Practices to Adoption of Integrated Reporting

2.2.1. Theoretical Approach

Integrated reporting can be viewed as an innovation in a company's reporting model with superior qualities compared to traditional reporting. For this reason, in line with previous studies (de Graaff and Steens 2023; Gunarathne and Senaratne 2017; Oktorina et al. 2022; Robertson and Samy 2015, 2020), we believe that the Diffusion of Innovation Theory provides an appropriate theoretical lens to investigate the drivers and barriers of voluntary adoption of integrated reporting, as well as the practices up to the production of an integrated report. Other theories are used to explain the reasons why companies do or do not choose to voluntarily engage in integrated reporting, such as Agency Theory, Voluntary Disclosure Theory, Signaling Theory, Stakeholder Theory, Legitimacy Theory, Institutional Theory, Proprietary Cost Theory, and Behavioral Decision Theory (e.g., Adhariani and de Villiers 2019; Fuhrmann 2019; Oktorina et al. 2022; Velte and Stawinoga 2017; Wahl et al. 2020). However, these theories provide only partial and sometimes overlapping explanations for the voluntary adoption of integrated reporting, whereas the Diffusion of Innovation Theory allows us to explain the three dimensions: drivers, barriers, and practices.

Innovation is "an idea, practice, or object perceived as new by an individual or other unit of adoption" (Rogers 1983, p. 34) and may consist of new knowledge or the decision to adopt for the first time an idea, practice, or unknown object. Diffusion is the process by which an innovation is communicated through certain channels over time among the members of a social system (Rogers 1983, p. 5). The Diffusion of Innovation Theory predicts that the rate of adoption of innovations is influenced by attributes such as (Rogers 1983; Moore and Benbasat 1991):

- *Relative advantage*: the degree to which an innovation is perceived as being better than the idea it supersedes.
- *Compatibility*: the degree to which an innovation is perceived as consistent with the existing values, past experiences, and needs of potential adopters.
- *Complexity*: the degree to which an innovation is perceived as relatively difficult to understand and use.
- *Trialability*: the degree to which an innovation can be experimented with before it is adopted.
- *Observability*: the degree to which the results of an innovation are observable to others.
- *Image*: the degree to which use of an innovation is perceived to enhance one's image or status.
- *Voluntariness of use*: the degree to which use of innovation is perceived as being voluntary or of free will.

Drawing on the Diffusion of Innovation Theory and previous studies (de Graaff and Steens 2023; Gunarathne and Senaratne 2017; Oktorina et al. 2022; Robertson and Samy 2015, 2020), we consider the following as drivers for the voluntary adoption of integrated reporting:

- The perception that integrated reporting has a *relative advantage* over traditional reporting, particularly in improving the quality of information available to providers of financial capital.

- The *observability* of the benefits of integrated reporting, particularly to stakeholders other than providers of financial capital.
- The *compatibility* of integrated reporting with existing reporting practices and/or with existing internal procedures.
- The perceived impact on the company's *image* or status of following the best practice and keeping up with its peers.

Conversely, we consider the following as barriers to the voluntary adoption of integrated reporting:

- The *complexity* of concepts in the <IR> framework, such as "connectivity", and the [in]compatibility of new concepts such as "integrated thinking" with existing practices ("siloed" thinking).
- As it is a voluntary practice (*voluntariness of use*), it will only be adopted if the perceived benefits outweigh the costs.

2.2.2. Empirical Evidence

- *Relative advantage over traditional reporting*

Integrated reporting aims to improve the quality of information available to providers of financial capital to enable a more efficient and productive allocation of capital (IIRC 2021). Given that integrated reports provide more value-relevant information than traditional reports, the adoption of integrated reporting is expected to reduce information asymmetries and agency costs, thereby lowering the cost of capital (Diamond and Verrecchia 1991; Kim and Verrecchia 1994). This positive effect is documented by empirical capital market research, which has shown positive effects from the adoption of integrated reporting, such as: an improvement in the analyst forecast accuracy (Bernardi and Stark 2018; García-Sánchez and Noguera-Gámez 2017b; Zhou et al. 2017); positive effects on market valuation (Barth et al. 2017); and the reduction in the cost of equity capital (Baboukardos and Rimmel 2016; García-Sánchez and Noguera-Gámez 2017a; Zhou et al. 2017).

Given the positive effects of integrated reporting, its voluntary adoption, per se, can be seen as a "sign" of better-quality reporting (Connelly et al. 2011; Spence 1973). However, empirical evidence also shows that adoption, per se, is not always perceived as a relative advantage and preparers should provide additional "signs" of its quality. For example, Landau et al. (2020) found a negative influence of integrated reporting adoption on market valuation unless the integrated reports were assured by a Big 4 audit firm and prepared according to the newest GRI guidelines. The authors consider that investors perceive integrated reports as "cognitive cost producing" rather than "acquisition costs saving", i.e., the cost for filtering the offered information is higher than the cost saved for receiving the required information. In turn, Wahl et al. (2020) found no significant effect of a voluntary adoption of integrated reporting on the accuracy of analysts' earnings forecasts and on firm value in an international sample. The authors conclude that companies that opt for an integrated report are those with a high level of transparency and for whom the incremental costs of preparing and publishing an integrated report are low, so that this practice only marginally reduces information asymmetries.

- *Observability of benefits to other stakeholders*

Although the focus of an integrated report is on the information needs of financial capital providers, information on how an organization creates, preserves, or erodes value over time benefits a wide range of stakeholders including employees, customers, suppliers, business partners, local communities, legislators, regulators, and policymakers (IIRC 2021). The IIRC (2021) recognizes the importance of stakeholders by requiring that an integrated report provides insight into the nature and quality of the organization's relationships with its key stakeholders, including how and to what extent the organization understands, considers, and responds to their legitimate needs and interests.

Based on a case study, Vitolla and Raimo (2018) provide evidence of observed benefits following the adoption of integrated reporting in terms of stakeholder engagement, in addition to the benefits recorded by analysts, who perceive a higher quality of external reporting combined with a greater readability of the documents. In particular, the analyzed company benefited from the attention of both universities and the IIRC, as was evidenced by several conferences in which the company was invited to participate. Moreover, the implementation of integrated reporting has led to the greater involvement of employees. Based on interviews with the managers of a public sector company, Farneti et al. (2019) found evidence showing that after integrated reporting adoption social disclosures were reduced, stakeholder engagement processes and the relevance of the social disclosures for stakeholders were enhanced by the adoption of integrated reporting. Based on a survey of preparers and other stakeholders of corporate reports, Adhariani and de Villiers (2019) concluded that the top three cited benefits of integrated reporting were: promoting integrated thinking, improving communication with external stakeholders, and improving transparency and governance. Less important were the capital market benefits in terms of easier access to capital, higher share price, and lower cost of capital.

- *Compatibility with existing practices and induced changes*

An integrated report should be seen as an evolution of the annual report, rather than an evolution of the sustainability report (Fiori et al. 2016). However, combining a sustainability report with the management commentary or the full annual report can be an intermediate step before producing an integrated report (IIRC 2011). Empirical evidence suggests that prior experience with sustainability reporting also facilitates the transition to integrated reporting (Gibassier et al. 2018; Gunarathne and Senaratne 2017; Nwachukwu 2021) and the development of "integrated thinking" (Rossi and Luque-Vílchez 2021).

Integrated thinking is a difficult concept to implement as it may clash with the existing organizational culture, based on information silos ("siloed" thinking), rather than fostering a new organizational culture (Dumay and Dai 2017). Rossi and Luque-Vílchez (2021) concluded that the experience of implementing sustainability reporting can promote "integrated thinking", as integrated thinking is rooted in organizational culture and is not a direct consequence of applying the <IR> framework.

Rodríguez-Gutiérrez et al. (2019) provide evidence that sustainability reporting is an important part of the process of adopting integrated reporting, involving internal changes such as: greater board commitment to sustainability; the creation of specific executive committees to deal with sustainability issues; a better position of the sustainability/CSR department within the organizational hierarchy; and the creation of cross-functional teams, mainly between the CSR and finance functions, to deal with specific sustainability issues.

- *Impact on the company's image*

Dumay and Dai (2017) observed that rather than using integrated reporting to resolve strategic, governance, performance, or management control issues, this reporting practice was used to maintain and enhance the company's image and reputation as a "trendsetter" in the Australian banking industry. The authors argue that the organization already has a robust management control system and is well managed and transparent, so it is better to leave the employees to think independently, instead of promoting the "integrated thinking", and allow them to focus on material risks, such as fraud risk.

Robertson and Samy (2020) conducted semi-structured interviews with senior executives actively involved in integrated reporting and found that the rationale for integrated reporting was predominantly sociological rather than economic. The economic rationale was to better address the risks associated with significant societal/environmental impacts and to improve decision-making. Sociological reasons are related to the image and reputation of the company and include: societal pressure from public expectations of organizational accountability following the financial crisis and financial scandals; regulatory pressure, particularly to stay ahead of governance and non-financial reporting requirements; and external pressure from ethical investment index organizations whose ratings have an impact on reputation and the attraction of socially responsible investment. In addition, respondents saw the adoption of integrated reporting as a "best practice" that would allow them to lead the field in corporate reporting and to have a relative advantage over existing practices by enabling them to engage more effectively with a wider range of stakeholders, resulting in reduced reputational risk. The results also showed that the <IR> framework has not been fully adopted by the majority of organizations, mainly due to incompatibility with organizational requirements and/or perceived complexity of the framework.

- *Complexity of the <IR> Framework concepts*

The corporate report preparers have a positive view of integrated reporting, viewing it as a flexible tool for communicating the value-creation story of organization, including both financial and non-financial information and overall performance information (Arora et al. 2021) and providing concise, effective, transparent, and better decision-making reporting (Mishra et al. 2022).

However, the empirical evidence has documented difficulties in implementing integrated reporting due to the complexity of the concepts in the <IR> framework and the lack of adequate and clear guidance on what should be disclosed (Chaidali and Jones 2017; Dumay et al. 2017; Robertson and Samy 2015, 2020). For example, the "connectivity" between financial and non-financial information is a goal that has not yet been fully achieved. On the one hand, financial information tends to overlap with non-financial information (Carels et al. 2013; Haji and Anifowose 2016; Kannenberg and Schreck 2019; Veltri and Silvestri 2015). On the other hand, non-financial information presented in sustainability reports tends to be perceived as more relevant by some investors (Permatasari and Narsa 2022).

In general, the preparers of integrated reports (managers and accountants) recognize the need for more specific implementation guidance and training on how to prepare an integrated report and apply the underlying concepts (McNally et al. 2017; Arora et al. 2021). Accountants, in particular, face difficulties related to their backgrounds, such as the inability to convert numerical data into narratives; perceptions on the relevance of integrated reporting, as it is contrary to their traditional historical financial reporting perspective; the non-mandatory nature of integrated reporting, as they work in a highly regulated environment and, therefore, tend to act only when they are required to do so; and the inability to understand the implications of integrated reporting, as they are not familiar with it (Arora et al. 2022).

- *Voluntariness of use and proprietary costs*

Adopting integrated reporting is costly because it may involve the whole organization in an internal change process that requires time and human resources, as well as external consulting and assurance services (Bananuka et al. 2019; Chaidali and Jones 2017). As it is a voluntary practice, the cost–benefit ratio will be decisive in its adoption. Although the implementation of integrated reporting could be less costly for companies that already disclose a lot of information and have experience in sustainability reporting (Gibassier et al. 2018; Nwachukwu 2021), it may reveal proprietary information to competitors, which is also "costly" (Veltri and Silvestri 2020). The costs involved and its voluntary nature in most countries leads many companies to postpone the implementation of integrated reporting (Bananuka et al. 2019; Soriya and Rastogi 2021; Velte 2021). This evidence suggests that in the presence of proprietary costs (Dye 1985; Verrecchia 1983), voluntariness of use may be an obstacle to the diffusion of integrated reporting.

3. Research Methodology

3.1. Framework for the Analysis

This study aims to explore the drivers and the barriers to the adoption of integrated reporting, as well as the evolution of reporting practices until the publication of an integrated report by Portuguese listed companies, by answering the following research questions (RQ):

RQ1: What are the reasons for adoption and the perceived advantages, disadvantages, and difficulties in implementing integrated reporting by Portuguese listed companies?

RQ2: What are the reasons for the non-adoption of integrated reporting by Portuguese listed companies?

RQ3: How are the corporate reporting practices of Portuguese listed companies evolving towards the adoption of integrated reporting?

Figure 1 presents the framework used in this study to link the theoretical approach and the empirical evidence presented in the previous sections with the research questions and the data collection methods.

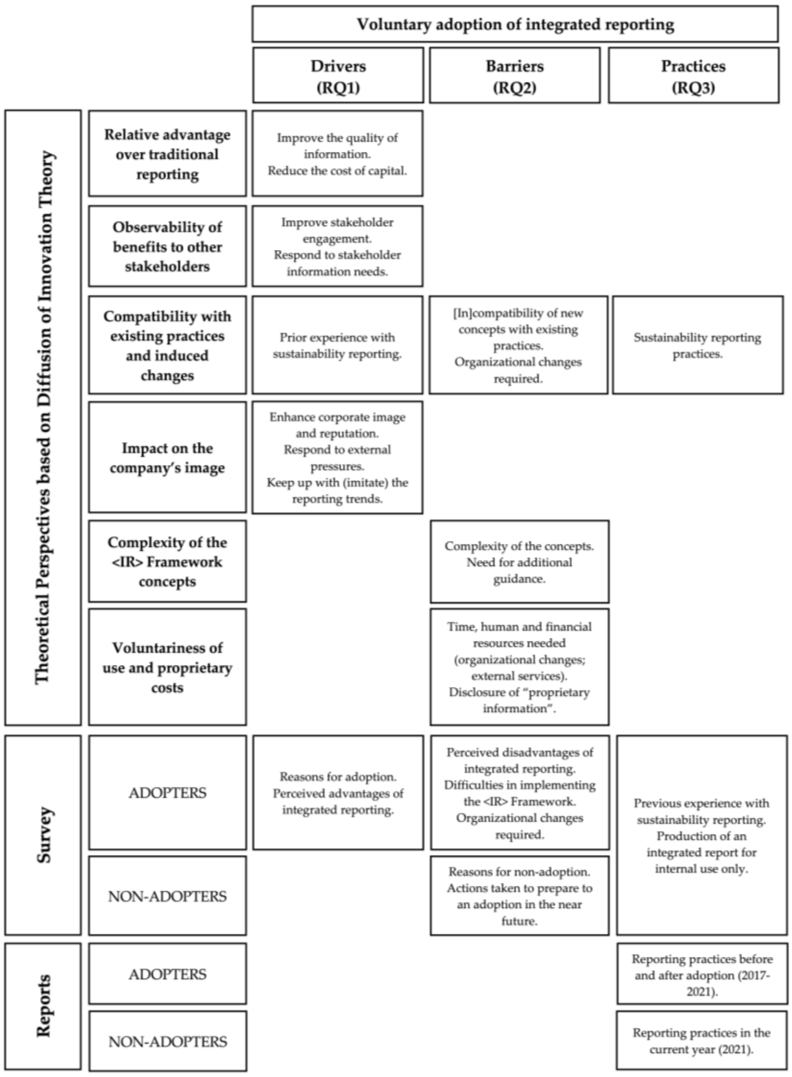

Figure 1. Framework for the analysis.

3.2. Methods and Data

Two types of data were collected to answer the research questions: primary data, collected through a survey (RQ1 and RQ2); and secondary data, from content analysis of the corporate reports published on the companies' websites (RQ3). The websites of the companies listed on the Portuguese Stock Exchange (Euronext Lisbon) were used to collect the reports as well as to identify an email contact to send the surveys. From the analysis of the websites and the reports published therein, we identified 4 companies that had prepared an integrated report for the 2021 financial year, hereafter referred to as "adopters", and 40 companies that do not yet prepare integrated reports, who we will refer to as "non-adopters", for a total of 44 companies with email contact and reports available.

The survey was addressed to the person in the company who is involved in the implementation of integrated reporting or who knows the reasons for its non-adoption.

Although the questions were different for "adopters" and "non-adopters", it was designed as a single and anonymous survey with three sections: A, B, and C. After section A, which is dedicated to participant information and informed consent, the survey continues, in section B, with the characterization of the respondent and with the question: "Has your company published an integrated report for the economic year 2021, prepared in accordance with the <IR> framework?". This question determines the remaining set of questions that will be presented to each of the two types of respondents. The questions addressed specifically to "adopters" are in section C and focus on the motives for integrated reporting adoption, advantages, disadvantages, and difficulties in the application of the <IR> framework and organizational changes needed in the transition to integrated reporting. The questions specifically addressed to "non-adopters" are presented in section D and seek to understand the reasons for non-adoption and whether the company is already in the process of implementing integrated reporting. At the end of the survey, a space was left open so that respondents could, if they so wished, leave additional comments. The survey was built on the FormsUA platform (forms.ua.pt) and the link to access it was sent by email to each of those 44 companies during the month of June 2022. In July, a new email was sent to all the companies, thanking them for their replies and asking those companies that had not yet replied to do so. The number of responses obtained was 6: 2 from "adopters" companies and 4 from "non-adopters".

The corporate reports of the 44 companies were analyzed to identify: the type of reports published; the frameworks used to prepare non-financial information; and the assurance provided on non-financial information. For the "adopters", we analyzed the reports from the period 2017 to 2021. The year 2017 was chosen as the starting point, as it was the year in which the requirements of Directive 2014/95/EU on the disclosure of non-financial information entered into force in Portugal (Carmo and Ribeiro 2022). For the "non-adopters", only the 2021 reports were analyzed in order to assess the level of sophistication of sustainability reporting and, therefore, the level of readiness to adopt integrated reporting. Table 1 summarizes the description of the sample.

Table 1. Sample.

	"Adopters"	**"Non-Adopters"**	**Total**
Population	4 companies	40 companies	44
Surveys answered	2	4	6
Reports analyzed	4 companies (2017–2021)	40 companies (2021)	

Table 2 shows the characteristics of the person and the department responsible for producing the integrated report, based on the responses of the "adopters".

Table 2. Characterization of "adopters".

	Company 1	**Company 2**
Position of the respondent	Sustainability Officer	Investor Relations Officer
Department responsible for the preparation of the integrated report	Shared responsibility for the departments of: Planning and Control, Accounting and Finance, and Sustainability.	Investor Relations Department

Table 3 presents the characteristics of the "non-adopters" who responded to the survey.

Table 3. Characterization of "non-adopters".

	Company 3	**Company 4**	**Company 5**	**Company 6**
Position of the respondent	Chief Financial Officer	Director of the investor relations department	Director of the reporting department and investor relations	Group accounting manager

4. Results

4.1. Drivers for the Adoption of Integrated Reporting (RQ1)

The drivers for the adoption of integrated reporting were identified from the responses of "adopters" on the reasons for and perceived advantages of integrated reporting.

Tables 4 and 5 summarize the responses from "adopters" on the reasons for adopting integrated reporting and the perceived advantages (√ indicate the options selected by respondents).

Table 4. Reasons for adoption of integrated reporting.

What Was the Reason for Your Company to Publish an Integrated Report According to the <IR> Framework?		
	Company 1	**Company 2**
The company was required by a certain entity to do so. (If possible, please mention the entity in the comment box)	√	
Because it is good for the company's image to keep up with the latest reporting trends.		
To follow the reporting practices of other companies. (If possible, please mention in the comment box if they were competing companies, companies from the same sector and/or the same stock exchange)		√
Because integrated reporting provides more relevant information compared to traditional reporting.		
Another reason. Which one?		

Table 5. Advantages of integrated reporting as perceived by "adopters".

<table>
<tr><th colspan="3">Please Indicate Your Degree of Agreement/Disagreement Regarding the Advantages for Your Company of Publishing an Integrated Report According to the <IR> Framework.
Scale: 1—Strongly Disagree; 2—Disagree; 3—No Opinion; 4—Agree; 5—Strongly Agree</th></tr>
<tr><th></th><th>Company 1</th><th>Company 2</th></tr>
<tr><td>It allows a better identification of the "capitals".</td><td>Strongly agree</td><td>Agree</td></tr>
<tr><td>It improves the company's image.</td><td colspan="2">Agree</td></tr>
<tr><td>It improves the conditions for access to bank financing.</td><td colspan="2">Agree</td></tr>
<tr><td>It allows for better risk identification and management.</td><td colspan="2">Agree</td></tr>
<tr><td>It allows for better capital management and the creation of more value.</td><td colspan="2">Agree</td></tr>
<tr><td>It allows for attracting new customers.</td><td rowspan="2">Agree</td><td rowspan="2">Disagree</td></tr>
<tr><td>It allows access to new suppliers.</td></tr>
<tr><td>It increases stock liquidity and reduces the cost of equity capital.</td><td colspan="2">No opinion</td></tr>
<tr><td>It allows the disclosure of information about intellectual capital not presented in the financial statements.</td><td>No opinion</td><td>Agree</td></tr>
</table>

As can be seen in Table 4, the two "adopters" highlighted two types of reasons for adopting integrated reporting in their responses: pressure from a certain entity (not identified) and the need to follow the reporting practices of other companies. Company 2 adds in the comment box: "*The aim was to follow the best practices and anticipate their adoption. Integrated reporting increases transparency and facilitates access to information for stakeholders*".

Regarding the advantages of integrated reporting, Table 5 shows that "adopters" agree that it improves: identification of the "capitals"; company's image; conditions for accessing bank financing; the identification and management of risks; capital management; and value creation. Opinions are divided or companies have no opinion on attracting new customers and access to new suppliers; disclosing information on intellectual capital not presented in the financial statements; and increasing stock liquidity and reducing the cost of equity capital.

4.2. Barriers to the Adoption of Integrated Reporting (RQ2)

Barriers to the adoption of integrated reporting were identified from the responses of both "adopters" and "non-adopters". "Adopters" were asked about the organizational changes required; the difficulties in implementing the <IR> framework; and the perceived disadvantages of integrated reporting. "Non-adopters" were asked about their reasons for not adopting.

Regarding the organizational changes required to implement the process of preparing and publishing an integrated report, as can be seen in Table 6, one company refers to the creation of a specific committee in the governance structure without specifying which one; and both companies mention the acquisition of technological resources and the need to outsource services (√ indicate the options selected by respondents).

Table 6. Organizational changes to implement integrated reporting.

What Organizational Changes Have Taken Place to Start Preparing and Publishing the Integrated Report According to the <IR> Framework?		
	Company 1	**Company 2**
Creation of a specific department. Which department?		
Creation of a specific committee in the governance structure. Which committee?		√
Hiring more employees. For which functions?		
Acquisition of technological resources. Which ones?	√ "Platform for publishing the report"	√
Outsourcing services. Which ones?	√ "Support for structuring the Integrated Report in the first year."	√
Other changes. Please indicate which.		
No organizational changes were needed.		

Table 7 presents adopters' perceptions of the difficulty of implementing the concepts and principles of the <IR> framework. Regarding the implementation of the concepts and principles of the <IR> framework, adopters agree on the difficulty underlying the concepts of materiality and conciseness. Stakeholder relationships, reliability and completeness, consistency, and comparability are concepts considered easy to apply. Opinions are divided on strategic focus and future orientation, connectivity, value creation, and capitals.

Table 7. Difficulties in implementing the <IR> framework as perceived by "adopters".

<table>
<tr><th colspan="3">The IIRC Structure for Integrated Reporting Mentions a Set of Principles and Concepts. Please Indicate Your Opinion Regarding the Difficulty of Implementing These Principles/Concepts.
Scale: 1—Very Easy; 2—Easy; 3—No Opinion; 4—Difficult; 5—Very Difficult.</th></tr>
<tr><th></th><th>Company 1</th><th>Company 2</th></tr>
<tr><td>Strategic focus and future orientation</td><td>Difficult</td><td>Easy</td></tr>
<tr><td>Connectivity of information</td><td>Easy</td><td>Difficult</td></tr>
<tr><td>Stakeholder relationships</td><td colspan="2">Easy</td></tr>
<tr><td>Materiality</td><td colspan="2">Difficult</td></tr>
<tr><td>Conciseness</td><td>Difficult</td><td>Very Difficult</td></tr>
<tr><td>Reliability and completeness</td><td colspan="2">Easy</td></tr>
<tr><td>Consistency and comparability</td><td colspan="2">Easy</td></tr>
<tr><td>Value creation</td><td>Easy</td><td>No opinion</td></tr>
<tr><td>The capitals (financial, manufactured, natural, intellectual, human, social, and relationship)</td><td>Easy</td><td>No opinion</td></tr>
</table>

Table 8 shows the disadvantages of integrated reporting, which include the cost of additional resources required but also the potential negative consequences of disclosing "proprietary information" about the company's strategy and risks. Although both adopters have purchased technological resources and contracted external services (see Table 6), they are very divided on the disadvantages, with one considering all the disadvantages listed and the other considering that there are none.

Table 8. Disadvantages of integrated reporting as perceived by "adopters".

<table>
<tr><th colspan="3">Please Indicate Your Degree of Agreement/Disagreement Regarding the Disadvantages for Your Company of Publishing an Integrated Report According to the <IR> Framework.
Scale: 1—Strongly Disagree; 2—Disagree; 3—No Opinion; 4—Agree; 5—Strongly Agree</th></tr>
<tr><th></th><th>Company 1</th><th>Company 2</th></tr>
<tr><td>The transition from traditional reporting to integrated reporting is very costly.</td><td>Disagree</td><td>Strongly agree</td></tr>
<tr><td>Integrated reporting is more expensive than traditional reporting even after the transition.</td><td rowspan="2">Strongly disagree</td><td rowspan="2">Agree</td></tr>
<tr><td>Integrated reporting exposes aspects of the company's strategy to competitors.</td></tr>
<tr><td>Integrated reporting makes the risks to which the company is subject more visible, compared with traditional reporting.</td><td>Disagree</td><td>Agree</td></tr>
</table>

The "non-adopters" were first asked if they were already preparing for the future adoption of integrated reporting, to which they all replied "no". They were then asked why they had not yet started the process of implementing integrated reporting. Table 9 summarizes the responses given.

Table 9. Reasons for non-adoption of integrated reporting.

What Are the Reasons Why Your Company Has Not Yet Started the Process towards the Publication of the Integrated Report According to the <IR> Framework?				
	Company 3	**Company 4**	**Company 5**	**Company 6**
Integrated reporting relies on concepts that are difficult to implement.				
The transition from traditional to integrated reporting is very costly.		√		√
Integrated reporting is more expensive than traditional reporting even after the transition.		√		
Integrated reporting exposes aspects of the company's strategy to competitors.				
Integrated reporting makes the risks to which the company is subject more visible, compared with traditional reporting.				
The company does not consider any advantages or disadvantages as long as integrated reporting is not mandatory.			√	
Other reasons. Which ones?	√			√

As shown in Table 9, there are several reasons why companies have not yet started to implement integrated reporting (√ indicate the options selected by respondents). The cost of implementing and maintaining the practice is one of the reasons given by "non-adopters" for not yet having published an integrated report. Company 3 points out in the comment box: "*The transition from traditional reporting to integrated reporting is very complex in terms* *of work organization and planning*". Company 6 mentions: "*Integrated reporting does not meet most of the information needs of our investors and analysts, who place greater importance on the adoption of GRI [Global Reporting Initiative] standards*". This idea is taken up in the survey's final comments box, where Company 6 writes: "*The adoption of integrated reporting was considered, however it was not perceived as adding value to the Group. It requires a great deal of effort to implement it and the benefits of eventual implementation are not apparent. Our stakeholders continue to prefer other frameworks, namely: GRI Standards, Task Force on Climate-related Financial Disclosures, Sustainability Accounting Standards Board and the Regulatory Technical Standards indicators, for sustainability disclosure*."

4.3. Reporting Practices towards the Adoption of Integrated Reporting (RQ3)

4.3.1. The Reporting Practices of "Adopters"

In order to characterize the reporting practices of the "adopters", the survey responses and the corporate reports of the "adopters" were analyzed. It should be noted that the two "adopters" who responded to the survey are among the four whose reports were analyzed. However, as the survey was anonymous, it is not possible to identify them.

The survey asked "adopters" about their previous experience with sustainability reporting and both "adopters" responded that they had published sustainability reports prior to the publication of integrated reports and that they considered this experience to have facilitated the transition to integrated reporting. The practice of publishing a sustainability report was discontinued by both "adopters" from the moment they started publishing an integrated report.

The content analysis of the corporate reports of the four companies that already produce integrated reports focused on the type of reports published; the frameworks adopted for the preparation of non-financial information; and the assurance provided on non-financial information.

Table 10 summarizes the type of reports published by the "adopters" in the years 2017 to 2021. The two companies that have most recently started publishing an integrated report (SONAE and NOS) had published "unified" reports in previous years. For the company that started publishing an integrated report the earliest (GALP), a non-tabulated analysis shows that its first integrated report was published in 2016 and it published a "unified" report in 2015. We call "unified" reports those that combine in a single document the information from several separate reports (management report and financial statements, sustainability report, and corporate governance report), although they do not follow the <IR> framework. This appears to be a practice that facilitates the transition to integrated reporting and may be a step prior to the application of the <IR> framework.

Table 10. Corporate reports published by "adopters".

	Company			
Year	**CTT**	**GALP**	**SONAE**	**NOS**
2017	MR&FS + CGR + SR	IR	MR&FS + CGR + SR	UR
2018	IR	IR	UR	UR
2019	IR	IR	UR	UR
2020	IR	IR	IR	UR
2021	IR	IR	IR	IR

MR&FS—Management report and financial statements; CGR—corporate governance report; SR—sustainability report; IR—integrated report; UR—"Unified" report. Shading marks the years of publication of an integrated report.

Table 11 shows the frameworks used by "adopters" to prepare non-financial information.

Table 11. Frameworks applied by "adopters" in the preparation of non-financial information.

Year	Company			
	CTT	GALP	SONAE	NOS
2017	SDG, CDP	IIRC, GRI, UNGC, SDG, EITI, TCFD	GRI, UNGC, SDG	GRI, UNGC, SDG
2018	IIRC, GRI, SGD, CDP	IIRC, GRI, UNGC, SGD, TCFD	GRI, UNGC, SGD	GRI, UNGC, SGD
2019	IIRC, GRI, SGD, CDP	IIRC, GRI, UNGC, SGD, TCFD	GRI, UNGC, SGD	GRI, UNGC, SGD
2020	IIRC, GRI, SGD, CDP	IIRC, GRI, UNGC, SGD, TCFD, SASB, WORLD ECONOMIC FORUM	IIRC, GRI, UNGC, SGD	GRI, UNGC, SGD
2021	IIRC, GRI, SGD, CDP CMVM	IIRC, GRI, UNGC, SGD, TCFD, SASB, WORLD ECONOMIC FORUM CMVM	IIRC, GRI, UNGC, SGD, TCFD	IIRC, GRI, UNGC, SGD, TCFD

IIRC—<IR> framework; GRI—Global Reporting Initiative standards; CDP—Carbon Disclosure Project disclosures; SASB—Sustainability Accounting Standards Board standards; SDG—Sustainable Development Goals; UNGC—United Nations Global Compact principles; TCFD—Task Force on Climate-related Financial Disclosures recommendations; EITI—Extractive Industries Transparency Initiative principles and requirements; CMVM—Non-financial information reporting model proposed by the Portuguese Securities and Exchange Commission (CMVM). Shading marks the years of publication of an integrated report.

The analysis of Table 11 suggests that companies were already familiar with several frameworks for the preparation of non-financial information before starting to publish an integrated report. Some companies adopted new frameworks in parallel with the preparation of an integrated report for the first time. The GRI standards and the SDGs are the most widely used frameworks. Finally, it should be noted that only two companies apply the model for reporting non-financial information proposed by the Portuguese Securities and Exchange Commission (CMVM 2021).

Table 12 presents information on the auditor and the type of assurance provided by "adopters" on non-financial information.

Table 12. Assurance provided by "adopters" on non-financial information.

Company	Year				
	2017	2018	2019	2020	2021
CTT	Limited Assurance	Limited Assurance			
	ISAE 3000	ISAE 3000			
	KPMG	KPMG			EY
GALP	Reasonable assurance on the Carbon Footprint. Limited Assurance on the remaining non-financial information				
	ISAE 3000				
	PWC				
SONAE	External verification	Limited Assurance		Limited Assurance	
	-	ISAE 3000		ISAE 3000	
	EY	KPMG		KPMG	
NOS	Limited Assurance				Limited Assurance
	ISAE 3000				ISAE 3000
	EY				EY

ISAE 3000—International Standard on Assurance Engagements 3000—Assurance Engagements other than audits or reviews of historical financial information; PWC—PricewaterhouseCoopers; EY—Ernst and Young. Shading marks the years of publication of an integrated report.

In terms of assurance, all companies producing integrated reports provide, at least, limited assurance on the reliability of their non-financial information in accordance with ISAE 3000. This assurance is provided by Big Four audit firms.

4.3.2. The Reporting Practices of "Non-Adopters"

In the previous section, we noted that two "adopters" published a "unified report" before starting to publish an integrated report, suggesting that this may have been a preparatory step towards integrated reporting. It was also found that "adopters" follow a variety of frameworks for the preparation of non-financial information and provide limited assurance on non-financial information.

The level of implementation of these practices by "non-adopters" may indicate whether they are on the way to adopting integrated reporting. We, therefore, analyzed the 2021 corporate reports of the 40 "non-adopters" to characterize the types of reports presented, the frameworks adopted for the preparation of non-financial information, and the type of assurance provided. This analysis is presented in Table 13.

Table 13. Reporting practices of "non-adopters" in 2021.

	N. of Companies	Corporate Reports	Frameworks Applied	Assurance Provided
Group 1	2	UR	GRI, SASB, TCFD, UNGC, WORLD ECNOMIC FORUM, SGD, CDP	Limited Assurance ISAE 3000 EY, PWC
Group 2	3	MR&FS + SR MR&FS + CGR + SR	GRI, TCFD, WORLD ECONOMIC FORUM, SGD, CMVM	Limited Assurance ISAE 3000 PWC, KPMG
Group 3	15	MR&FS MR&FS + CGR + SR UR	GRI, SASB, TCFD, UNGC, WORLD ECONOMIC FORUM, SGD, CMVM	-
Group 4	20	MR&FS MR&FS + CGR MR&FS + CGR + SRR	-	-

SRR—social responsibility Report. The remaining abbreviations follow the descriptions in the previous tables.

This analysis showed four groups of companies. The first group includes two companies that prepare "unified reports", identifying the frameworks for the preparation of non-financial information and with limited assurance for that information. These are the companies that, in our view, may be better prepared for the future preparation of an integrated report. The second group includes three companies that do not present "unified reports" but may also be equally well prepared for the transition to integrated reporting, since they have all the characteristics mentioned for the previous group, but they publish a separate sustainability report. The third group includes 15 companies that identify the frameworks for the preparation of non-financial information but have not yet started the process of assuring that information. It should be noted that two of these companies call their reports integrated reports but do not follow the <IR> framework in their preparation, which means they are "unified reports". The fourth group comprises 20 companies that do not identify the frameworks used and, consequently, do not provide assurance to the non-financial information. These companies follow a presentation format that corresponds, in essence, to the management report and financial statements, presenting non-financial information in the management report. One of these companies presents a social responsibility report.

In general, the most commonly used frameworks by all "non-adopters" are the same as those identified for "adopters", namely, GRI standards (17 companies); SDGs (11 companies); and the TCFD recommendations (10 companies). Regarding the adoption of the non-financial information reporting model proposed by the Portuguese Securities and Exchange Commission (CMVM 2021), only 5 of the 40 companies use it. Regarding the assurance of non-financial information, only 5 of the 40 companies provide a limited assurance, all of them by Big Four auditors.

5. Discussion

In this section we discuss our findings presented in the light of the Diffusion of Innovation Theory and contrast them with the previous empirical evidence. In terms of drivers, the responses from "adopters" suggest that they perceive integrated reporting to have a relative advantage over traditional reporting in terms of providing more relevant information regarding the identification of "capitals", risk management, and value creation, corroborating the previous evidence (Arora et al. 2021; Mishra et al. 2022). Despite the existing evidence of the positive capital market effects of integrated reporting (e.g., Baboukardos and Rimmel 2016; García-Sánchez and Noguera-Gámez 2017a; Zhou et al. 2017), the Portuguese "adopters" have no opinion on potential advantages in terms of improving stock liquidity or reducing the cost of equity capital. However, they believe that integrated reporting improves the conditions for access to bank financing. This finding is consistent with the fact that Portuguese companies, even listed ones, are heavily dependent on the banking system as a source of capital. Regarding the observability of the benefits of integrated reporting to other stakeholders, the responses of "adopters" do not support that integrated reporting has improved stakeholder engagement, particularly in attracting new customers or access to new suppliers, contrary to the previous evidence (e.g., Adhariani and de Villiers 2019; Farneti et al. 2019; Vitolla and Raimo 2018). One "adopter" mentioned that the adoption of integrated reporting resulted from the "pressure from a certain entity". Compatibility with existing practices is an important driver for the adoption of integrated reporting adoption, as all "adopters" have previous experience with sustainability reporting, and it was seen by the respondents as a facilitator for the adoption of integrated reporting, in line with the previous evidence (Gibassier et al. 2018; Gunarathne and Senaratne 2017; Nwachukwu 2021). The analysis of the reports of "adopters" supports this idea, showing that companies follow a path of gradual change in reporting practices up to the adoption of integrated reporting, adopting several frameworks for the preparation of non-financial information and providing assurance on this information. The production of a "unified report", i.e., a single document that combines information from several separate reports (management report and financial statements, sustainability report, and corporate governance report) but does not follow the <IR> framework, is also a practice of some companies prior to integrated reporting. Nevertheless, the adoption of integrated reporting also drives internal changes, as one of the "adopters" mentioned the creation of a specific committee in the governance structure, a practice previously documented by Rodríguez-Gutiérrez et al. (2019). The "Adopters" also believe that adopting integrated reporting has a positive impact on the company's image and is a way of keeping up with the reporting trends, in line with Dumay and Dai (2017).

Although "adopters" had incurred costs in acquiring technological resources, outsourcing services, and/or creation of a specific committee in the governance structure, they were divided on whether the adoption of integrated reporting was costly in terms of the additional resources required or the disclosure of "proprietary information". For this reason, it is not clear whether "proprietary costs" (Dye 1985; Verrecchia 1983) are a barrier to the adoption of integrated reporting. Consistently with the previous studies (Chaidali and Jones 2017; Dumay et al. 2017; Robertson and Samy 2015; Robertson and Samy 2020) the "adopters" considered some concepts of the <IR> framework difficult to implement. The "Non-adopters" were divided on whether they considered integrated reporting to be costly in terms of the resources required, but none considered the existence of costs associated with the disclosure of "proprietary information" or the difficulty of implementing the concepts of the <IR> framework as a reason for not adopting. Both opinions could simply be the result of a lack of knowledge of the concepts of the <IR> framework. It should be noted that one "non-adopter" admits that it will not adopt integrated reporting until there is a mandatory requirement. Another "non-adopter" believes that integrated reporting will not provide its stakeholders with better quality sustainability information than the company currently provides, in line with the idea that sustainability reports could be perceived as more relevant (Permatasari and Narsa 2022). The analysis of the reports of the "non-adopters" showed that companies have different levels of experience in sustainability reporting, suggesting that unless it becomes mandatory, the adoption of integrated reporting by all Portuguese listed companies will take some time.

6. Conclusions

The <IR> framework points to several benefits of integrated reporting and the literature has provided evidence of these benefits, so one would expect a more widespread adoption of this practice globally. However, the adoption of integrated reporting involves costs, whether of organizational changes, hiring external services, or costs of disclosing "proprietary information". Therefore, as rational agents, the managers will only voluntarily adopt this practice if the expected benefits exceed the costs.

Based on the Portuguese context, where the adoption of integrated reporting is voluntary and there is a reduced number of listed companies producing integrated reports, this study aimed to explore the drivers and the barriers to the adoption of integrated reporting, as well as the evolution of reporting practices up to the publication of an integrated report, based on the Diffusion of Innovation Theory.

The results suggest that the adoption of integrated reporting may be driven by the perception of a relative advantage over traditional reporting in terms of providing more relevant information to capital providers, in particular, banks. Improving the company's image and keeping up with the reporting trends also seem to be important drivers for the adoption of integrated reporting. It is not clear whether "proprietary costs" are a barrier to the adoption of integrated reporting, perhaps because companies may be differently prepared for the transition. Previous experience with sustainability reporting is an important driver, and it appears that the voluntary adoption of integrated reporting is the result of a process of incremental improvements in the disclosure and assurance of non-financial information.

Our findings contribute to a better understanding of the phenomenon of the voluntary adoption of integrated reporting globally by providing evidence from a context where most listed companies have little experience in sustainability reporting, mandatory non-financial information disclosure is recent, and companies, even listed ones, rely heavily on bank debt. In particular, the evidence collected suggests that integrated reporting may have positive effects on the cost of debt capital, in addition to the already known positive effects on equity markets; that experience with sustainability reporting facilitates the transition to integrated reporting; and that some companies may perceive integrated reporting as costly and complex, which, in a voluntariness of use context, may be a barrier to the diffusion of integrated reporting. These results may be of interest to academics, preparers, and regulators. For academics, this is an exploratory study that provides a framework for analysis that can be applied in future qualitative and quantitative research. For preparers, particularly to "non-adopters", it highlights the importance of incremental improvements in the disclosure of non-financial information and the production of sustainability reports and "unified reports" as an intermediate step towards integrated reporting. For regulators, the evidence gathered suggests that a wider and faster adoption of integrated reporting requires mechanisms to compel companies to improve their sustainability reporting practices and to produce integrated reports.

Despite the contributions, this study has some limitations, namely, the small size of the Portuguese capital market and the consequent low number of listed companies that have adopted integrated reporting in Portugal. Although half of the total number of "adopters" have responded to the survey, the number of responses from both "adopters" and "non-adopters" is not sufficient to generalize the results. Future research in the Portuguese context could focus on the quality of integrated reporting while analyzing trends in the adoption and quality of integrated reports. Our framework of analysis could also be applied in other contexts, particularly in European countries, to provide a benchmark for comparing the future development of integrated reporting following the entry into force of the new Corporate Sustainability Reporting Directive. Finally, it would be important to explore in depth stakeholders' perceptions of the relevance of integrated reporting.

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