

https://dspace.org/

A multi-country comparison of sustainability disclosures: Evidence from France, Japan and South Africa

Lepuru, Puseletso

2025
University of the Witwatersrand, Johannesburg
https://hdl.handle.net/10539/47671
Lepuru, Puseletso. (2025). A multi-country comparison of sustainability disclosures: Evidence from France, Japan and South Africa [Master`s dissertation, University of the Witwatersrand, Johannesburg]. WIReDSpace. https://hdl.handle.net/10539/47671

Downloaded from a DSpace repository. https://dspace.org/

A multi-country comparison of sustainability disclosures: Evidence from France, Japan and South Africa

A research report submitted by

Puseletso Lepuru

In partial fulfilment of the degree

Master of Commerce in Accounting

Student Number: 552653

University of the Witwatersrand

School of Accountancy 2025

Abstract

Background: Integrated reporting (IR), specifically environmental, social and governance (ESG) reporting research, has grown rapidly over the past two decades. ESG disclosure has received attention from researchers and industries on a global scale. Different motives drive the voluntary element in non-financial disclosures, and although the legal systems may shape the way of doing things, the difference in integrated report quality (IRQ) between common and civil law countries remains an underdeveloped topic. Bringing law and finance together, this study uncovers differences in the quality of IR between countries operating under different legal systems, specifically focusing on ESG disclosures.

Purpose: The study investigated whether there are differences in the quality of IR among common and civil law countries using the model developed by Malola and Maroun (2019). France and Japan represent civil law countries, while South Africa represents a common law country.

Methodology: The study follows Malola and Maroun's (2019) methodology to measure the IRQ of the top 20 entities in France, Japan and South Africa that operate in the Basic Materials, Oil and Gas and Financial Services industries. Descriptive statistics were used to highlight the variations in IRQ scores and IRQ elements' scores across the countries and industries. Inferential statistics were used to determine whether the differences in IRQ and IRQ elements between countries and industries are statistically different.

Findings: Overall, the study's findings suggest that the quality of ESG information disclosed in the integrated reports is not statistically different based on the jurisdiction's legal system. The quality only differs when the comparison is done on an industry level.

Implications: Standard setters and regulators must consider what contributes to the quality of integrated reports, taking into account each of the indicators and how they can be factored into new standards they are developing.

Keywords: Environmental, Social and Governance, integrated reporting quality, legal systems, quality indicators

Acknowledgements

First and foremost, all glory and honour to God the Father, the Son and the Holy Spirit; my prayers were heard and answered. I would like to express my deepest gratitude to my exceptional supervisors, Professor Wayne Van Zijl and Professor Warren Maroun, for their guidance, input and continuous support. This research would not have been possible without them. I would like to thank Thato Lepuru for supporting me throughout the late nights of data collection until the very end. I would like to thank Mr Ben Lepuru and Mrs Tshidi Lepuru for always encouraging me in all that I do. Thank you for every time you mention me in your prayers. Thank you to Siyanda Zokwe for being my support, and thank you for your sacrifices and prayers. I would like to acknowledge and thank Dr Sarah Taylor for her exceptional editing services. Lastly, thank you to my daughter, Hlumelo Lepuru, my ultimate source of motivation. This one is for you, my princess! WE DID IT.

"Therefore I tell you, whatever you ask in prayer, believe that you have received it, and it will be yours." - Mark 11:24

Table of Contents

Abstract **2**
Acknowledgements **3**
Table of Contents **4**
List of Figures **6**
List of Tables **7**
List of Acronyms **8**
Chapter 1: Introduction **9**
1.1 Problem statement 10
1.2 Significance of the study 11
1.3 Assumptions, limitations and delimitations 12
Chapter 2: Literature Review **14**
2.1 Theoretical framework 14
2.2 Legal systems 16
2.2.1 Common law vs civil law 16
2.2.2 Stakeholders 18
2.2.3 Stakeholder rights 21
2.2.4 Legal protection 23
2.3 Law and finance 24
2.4 Integrated reporting and environmental, social and governance reporting 27
Chapter 3: Methodology **31**
3.1 Quality assessment model 31
3.1.1 Quality assessment tool 31
3.2 Population and sample 34
3.3 Data collection 37
3.3.1 Unit of measure 37
3.4 Data analysis 38
3.4.1 Test for normality 39
3.5 Validity and reliability 40
3.6 Ethics 41
Chapter 4: Results **42**
4.1 Results analysis 42
4.1.1 Results of Spearman's rho and Kendall's tau-b 46
4.1.2 Results of Kruskal-Wallis and Jonkheere-Terpstra tests 52
4.1.3 Results for the Mann-Whitney U test 58
Chapter 5: Conclusion **63**

5.1 Key findings 63
5.2 Limitations of this study and directions for future research 64
5.3 Implications 65
References 67
Appendix A: Data Collection Extracts 76
Appendix B: Examples of Visual Mediums 77
Appendix C: Shapiro-Wilk Test 79

List of Figures

Figure 1: Main differences between common law and civil law 18
Figure 2: Structure of the study 39
Figure 3: Number of pages and sentences making up integrated reports per country 45
Figure 4: Highest integrated report quality (IRQ1) and corresponding measurement indicator (MI) and ease of interpretation indicator (EoII) 51
Figure 5: Lowest integrated report quality (IRQ1) and corresponding measurement indicator (MI) and ease of interpretation indicator (EoII) 52
Figure 6: Integrated report quality (IRQ) indicators by country 53
Figure 7: Integrated report quality (IRQ) indicators by country in the Basic Materials industry. 55
Figure 8: Integrated report quality (IRQ) indicators by country in the Oil and Gas industry 55
Figure 9: Integrated report quality (IRQ) indicators by country in the Financial Services industry 56
Figure 10: The study's overall findings showing the significantly different indicators between countries 63
Figure A1: Headings used in the sentence coding process 76
Figure A2: Extract of the visual mediums coding process 76
Figure B1: Corporate Governance Structure taken from Tokyo Tatemono Group's 2021 integrated report 77
Figure B2: Nedbank Group's value-creating business model from its 2021 integrated report .. 78
Figure C1: Shapiro-Wilk test result for quantity indicator 1 79
Figure C2: Shapiro-Wilk test result for quantity indicator 2 79
Figure C3: Shapiro-Wilk test result for the density indicator 79
Figure C4: Shapiro-Wilk test result for the measurement indicator 80
Figure C5: Shapiro-Wilk test result for the relevance indicator 80
Figure C6: Shapiro-Wilk test result for ease of interpretation (EoI) indicator 80
Figure C7: Shapiro-Wilk test result for Integrated Reporting Quality (IRQ) 1 81
Figure C8: Shapiro-Wilk test result for Integrated Reporting Quality (IRQ) 2 81

List of Tables

Table 1: Stakeholders and their rights 22
Table 2: Summary of quality indicators 34
Table 3: Assumptions of each of the tests 40
Table 4a: Descriptive statistics 42
Table 4b: Descriptive statistics by country 43
Table 5: Correlation matrix 47
Table 6: Differences in quality indicators between the countries 53
Table 7: Differences in quality indicators between the different industries 56
Table 8a: Country pairwise comparison 58
Table 8b: Industry pairwise comparison 59

List of Acronyms

CSR	Corporate Social Responsibility
DI	Density Indicator
EoII	Ease of Interpretation Indicator
ESG	Environmental, Social and Governance
IIRC	International Integrated Reporting Council
IR	Integrated Reporting
IRQ	Integrated Report Quality
JSE	Johannesburg Stock Exchange
MI	Measurement Indicator
QI	Quantity Indicator
RI	Relevance Indicator

Chapter 1: Introduction

Companies are faced with global competition, rapid technological innovation and increasingly onerous regulation (Dumay et al., 2019; García-Sánchez et al., 2013). Moreover, companies are facing significant pressure to be responsible corporate citizens where profit is not prioritised at all costs. This has led to the introduction of voluntary and mandatory environmental, social and governance (ESG) reporting (Dumay et al., 2019; García-Sánchez et al., 2013) in different jurisdictions. Dumay et al. (2019) argue that the traditional financial reporting model excludes creating value for people, society and the environment from the basic reason for an organisation's existence, which is to create value for the shareholders. Companies have increased voluntary reporting as a response to this concern (Dumay et al., 2019; García-Sánchez et al., 2013). One way entities can provide voluntary financial and ESG reporting is through integrated reporting (IR) or an equivalent, which addresses a combination of financial and ESG-related issues and may be targeted at either shareholders or a broader group of stakeholders.

The primary purpose of an integrated report is to provide stakeholders with information on how entities create, preserve or erode value (International Integrated Reporting Council [IIRC], 2021). According to the IR Framework, an integrated report aims to (i) improve the quality of information to enable capital providers a more efficient allocation of capital, (ii) promote an efficient approach to corporate reporting, (iii) enhance accountability and promote an understanding of the interdependencies of the base of capitals and (iv) support integrated thinking, decision-making and actions that focus on value creation over time (IIRC, 2021).

IR enhances the transparency of firms' value creation processes and underlying assets by merging traditional financial reporting with corporate social responsibility (CSR) reporting (Atkins & Maroun, 2015; Cortesi & Vena, 2019). IR also reduces information asymmetries and enhances corporate disclosures by providing investors with more reliable, accurate and homogeneous information (Cortesi & Vena, 2019). IR summarises comprehensive information about a

company's activities, giving investors an extensive view of the value creation process and all contributing factors to the overall performance (Atkins & Maroun, 2014; Cortesi & Vena, 2019).

Previous studies have shown that certain characteristics (i.e., size, industry, profitability, etc.) affect the publication of sustainability reports (Dilling & Caykoylu, 2019; Sotorrío & Sánchez, 2009). However, a critical aspect of an integrated report is its quality (Pistoni et al., 2018). Although several academic studies have contributed to IR, only a few focus on quality (Vitolla et al., 2019). It is also important to note that various other aspects, such as culture and legal systems, have gained momentum throughout the years (Frías-Aceituno et al., 2013; García-Sánchez et al., 2013). This is supported by the notion that companies that are most likely to act responsibly and adequately report their behaviour are those that operate in institutional settings with strong coercive and regulatory pressure, that is, settings with an important, well-developed legal system aimed at protecting the stakeholders (Campbell, 2006).

This gap in the literature shows the need for further empirical studies on IR quality (IRQ) and, specifically, aspects that impact it, which is still an underdeveloped topic (Vitolla et al., 2019). The current study addresses this gap by determining if companies operating in countries with different legal systems publish integrated reports of varying quality. The type of legal system is addressed by considering La Porta et al.'s (1997) proposal regarding civil versus common law.

1.1 Problem statement

Legal systems can directly and indirectly influence financial disclosures (Dayanandan et al., 2016; Jaggi & Low, 2000). Understanding whether a country's legal system impacts IRQ is important because it allows users to be better equipped to make appropriate adjustments to how they use and compare companies' integrated reports. This provides the basis for this study, which addressed the following research questions.

1. **Does the quality of sustainability disclosures for the top 20 largest companies in high environmentally and socially impactful industries differ between common and civil law countries?**

2. **Are the IR quality indicators of the top 20 largest companies in high environmentally and socially impactful industries different between common and civil law countries?**

3. **Are the IR quality indicators of the top 20 largest companies in high environmentally and socially impactful industries different between common and civil law countries when controlling for the type of industry?**

To address these questions, the research focused on South Africa, which is classified as a common law jurisdiction (Barniv et al., 2005; Iatridis, 2012) and France and Japan, which are classified as civil law jurisdictions (Barniv et al., 2005).

1.2 Significance of the study

The study contributes to the growing literature on sustainability reporting and IR. Although there are studies that measure IRQ rather than focusing on IR adoption, in some research designs, there is no separation between CSR reporting and IR (Velte, 2021). This study contributes to that gap by focusing solely on integrated reports linked to the IR Framework (IIRC, 2021). This study also contributes to the focus on country-level characteristics associated with IR quality. In this case, considering the legal systems' characteristics and the association with IRQ has implications for researchers, report users and preparers, investors and regulators. From an academic perspective, this study contributes to understanding the disclosures of integrated reports as it demonstrates the importance of both shareholder and stakeholder expectations. Secondly, IR users and preparers should factor the legal system into their analyses of understanding the disclosures of IR. Investors' interest in ESG disclosures has grown significantly, becoming a critical part of their analysis of companies. Understanding the differences, if any, in the quality of companies' ESG disclosures within different legal systems will contribute to how investors analyse them. Lastly, considering that IR remains voluntary in most countries, regulators should recognise users' and preparers' considerations in evaluating the consequences of possible future regulatory changes.

This study compared IRQ between different legal systems as an initial analysis. It focused on how various elements of IRQ differ between two legal systems (civil and common law), as well as between three industries considered environmentally and socially impactful in their operations. This analysis indicates how legal systems may impact IRQ. There is a research gap based on extensive literature review on IR documented by Velte (2023). Based on the analysis, the legal system a country operates under, was identified as one the country-specific governance factors that are underdeveloped. Most studies that focused on governance factors only referred to regulatory aspects.

Measuring IRQ is important because it shifts the focus beyond just rhetoric and into real, evidence-based understanding. It helps the stakeholders to bring the companies to account with regard to their reports. It also gives them information that is useful in their decision-making process and creates a solid base for future research in the sustainability reporting area. By knowing which reports are of high quality, researchers, regulators and policymakers can analyse the themes and work towards implementing standards and practices that truly reflect long-term value.

1.3 Assumptions, limitations and delimitations

This study assumes that Malola and Maroun's (2019) model is a reasonable assessment of IRQ. The study also assumes that all integrated reports are complete and accurate. Each integrated report contains a full set of extracts from the audited financial statements, meaning that the auditors would have considered both financial and non-financial information. The auditors would have considered the information in the integrated report so it could be considered a reliable source of information.

The study considered listed companies that publish integrated reports in English, limited to French companies listed on Euronext Paris, Japanese companies listed on the Japan Exchange Group and South African companies listed on the Johannesburg Stock Exchange (JSE). The information is readily available because listed companies' information is accessible to the public. France, Japan and South Africa are guided by the KPMG Survey of Sustainability Reporting's

outcome (KPMG, 2020), which notes an increase in IR in countries like France, Japan, India and Malaysia. More than 90% of listed companies produce integrated reports in the selected countries, increasing their availability from companies in different industries. South Africa was included as it is currently the only country that requires all listed companies to prepare integrated reports.

The study focused on information related to the ESG sections of integrated reports. This limits the generalisability of the results but allows the focus to be maintained on understanding whether different law formats affect the IRQ. It excluded ESG information that may be disclosed in other sustainability or CSR reports.

The study focused on industries with an inherently high environmental or social impact (Oil and Gas, Basic Materials and Financial Services). This helps ensure that when comparing the quality scores, the identified quality differences are due to genuine quality issues and not because some companies have less of an impact and, therefore, less to disclose.

Chapter 2: Literature Review

The literature review begins by establishing the theoretical framework that this study is based on (Section 2.1). Once a theoretical framework is established, the next two sections (Section 2.2 and Section 2.3) detail the differences between common and civil law and the existing literature on the relationship between law and finance, as well as the effect a legal system can have on financial reporting and disclosures. Section 2.4 explains IR, its purpose and how it developed globally and, specifically, in France, Japan and South Africa. This section also explains ESG reporting, how it has become a significant part of entities' strategies and the significance investors place on ESG reporting.

2.1 Theoretical framework

The concept of IR is a response to the challenges that companies face to create value and meet the demands of users of corporate reports by providing them with useful information on companies' abilities to create value in the future (Haller & de Villiers, 2014; Haller & van Staden, 2014). It represents a logical integration of two elements in corporate reporting, which have developed over time. On the one hand, investors require relevant information from a company, allowing them to assess the company's future economic development (i.e., value creation) (Haller & van Staden, 2014). On the other hand, management's ability and willingness to deal with investors' expectations requires incorporating sustainability into the corporate strategies and is perceived to have a growing impact on the company's success (Peters & Simaens, 2020).

This study follows the same logic as Ullmann (1985) in which society-related determinants such as legal systems are considered relevant for CSR disclosures. Stakeholder theory is one systems-based theory (Vitolla et al., 2019). This theory, presented by Freeman (1984), proposes that firm management incorporates the interests of various social groups. The basis of stakeholder theory is that a company's survival depends on how successfully stakeholders are handled (Roberts, 1992). The current study also follows the same approach as Vitolla et al. (2019) by considering stakeholder theory regarding the ethical-moral and strategic-managerial approaches. The ethical-moral approach considers all stakeholders, regardless of their power.

From this perspective, all stakeholders have the right to be informed about a company's financial and ESG aspects. The stakeholders' rights to information correspond with management's ethical standards. Ethical and moral values are influenced by the legal system and the culture, which influence the management of stakeholders (Hope, 2003; Orij, 2010).

The strategic managerial approach considers the different categories of stakeholders and the degrees of influence they may have on the company's financial results. According to this approach, information demand should drive disclosures. García-Sánchez et al. (2013) highlight stakeholders' expectations about corporate behaviours, which are driven by the conditions that shape them. Although La Porta et al. (1998) found no clear evidence that different countries favour different types of stakeholders, their evidence points to a relatively stronger stance favouring all investors (regardless of power) in common law countries.

CSR disclosures have become global, which could mean that countries have different levels of disclosure (Orij, 2010). The current study aimed to establish differences in ESG disclosures between countries with different legal systems. Drawing from stakeholder theory, which explains how different stakeholders have different needs and how those needs are protected, the current research focused on whether IRQ differs between different legal systems.

In line with the growing influence of institutional theory on management research, there is increasing interest in institutional theory providing arguments to support organisational transparency practices (Matten & Moon, 2008). The institutional context may influence the development of accounting regulations and the characteristics of sustainability reports (Chen & Bouvain, 2009). According to institutional theory, organisations will change their structures and/or operations to meet the expectations of external forces surrounding them (Deegan, 2002). Institutional theory can highlight the institutional environment's role in an organisation's structure and actions (Wong et al., 2022). Acceptance of external expectations enables organisations that operate in countries with similar institutional similarities to adopt similar patterns of behaviour.

According to institutional theory, companies respond to institutional challenges by acting in a manner that is considered acceptable in order to achieve legitimacy and appear legitimate to their stakeholders (Aerts et al., 2006). Aerts et al (2006) indicated that a civil law system and institutional quality strength are connected with the IR of Fortune 500 companies. Additionally, the findings also provide significant guidance to policymakers and various stakeholders such as the public, customers, press and civil organisations. Institutional theory is also utilised in Hassan et al. (2019) to examine the factors associated with the level of IR content elements in higher education institutions They documented that pre-1992, these institutions were more pressured to disclose more on IR contents. Legal pressures are considered an institutional factor that may influence IR disclosures (Injeni et al., (2022)).

Following La Porta et al.'s (1997) study, researchers compared common law and civil law systems applied in different countries regarding the efficiency and effectiveness of mechanisms used to ensure compliance with recommendations and regulations. The current study examines how the legal system impacts ESG information included in companies' integrated reports in the Oil and Gas, Basic Materials and Financial Services industries.

2.2 Legal systems

Empirical work demonstrates that legal systems based on common law systematically differ from those based on civil law (Klerman & Mahoney, 2007). There are different ways of explaining the key differences between common and civil law as legal systems (Dainow, 1966). One approach could be to examine the similarities or differences or even the histories of their origins and how they developed. Dainow (1966, p. 420) describes a legal system as "a living organism; it breathes, it grows, it evolves, it is part of the life of the people for whom it functions". Consequently, the first step in understanding the difference between civil and common law would be briefly discussing their origins.

2.2.1 Common law vs civil law

Civil law originates from Roman law and legislation (Dainow, 1966). Roman law had strict and limited procedural forms, which legal scholars later tempered to develop them. The essential

characteristic of civil law is that it is based on legislation, and large areas are codified systematically (Dainow, 1966). A civil code is a book that consists of the laws that regulate relationships between individuals. A code is not a list of rules for particular situations but rather a body of general principles that are closely integrated (Dainow, 1966). A code purports to be comprehensive and to cover the entire subject matter, not in detail but in principles, and to provide answers to questions that may arise in the future (Dainow, 1966).

Common law originates from and was developed by the judges in England. It is often defined as case law because the basis and nature of common law are shaped by precedents from the opinions given in court cases (Dainow, 1966). When a decision is made on a case, it is not only a law for the parties involved but one that would need to be applied in all future cases of a similar nature. The decisions then become a part of the general or ‘common’ law. Common law comprises all the rules that can be generalised for judicial decisions (Dainow, 1966). New cases and problems result in new rules being added, enriching common law rules. Common law is considered all-inclusive and complete; if a rule does not exist, it is the judge’s responsibility to declare it. Judicial decisions are both the source and proof of the law (Dainow, 1966).

Figure 1 summarises the main differences between common and civil law jurisdictions. Stakeholder rights and investor protection are two differences considered in IR literature (Velte, 2021).

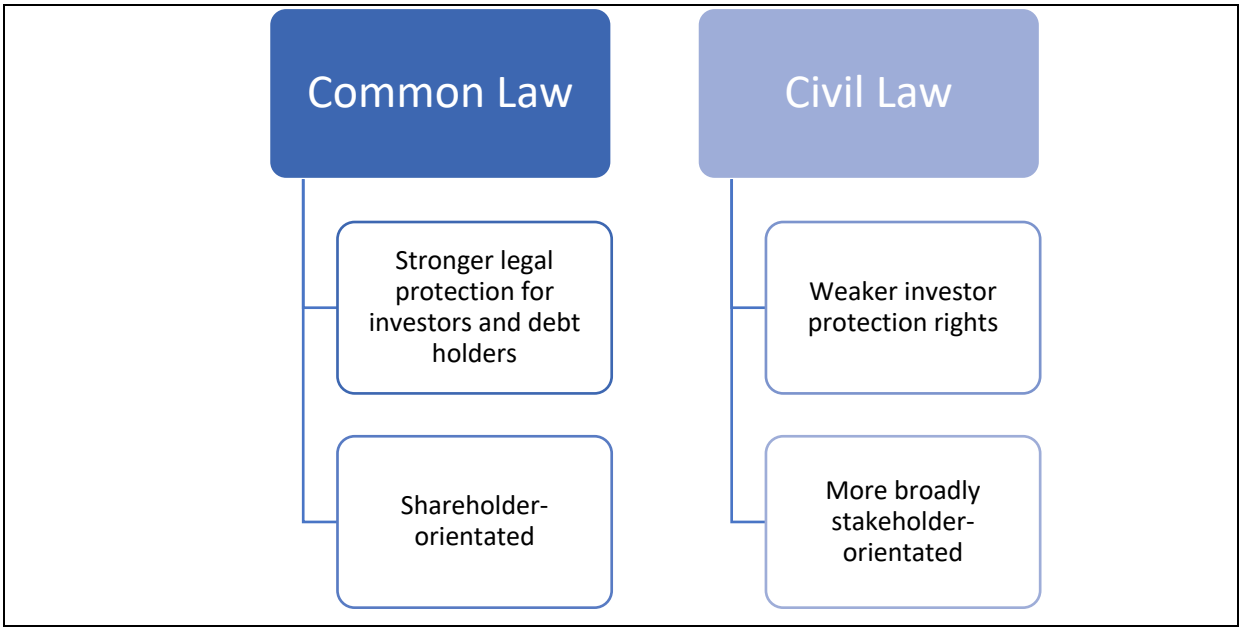


Figure 1: Main differences between common law and civil law

2.2.2 Stakeholders

In the context of the current study, it is essential to identify the differences between the types of stakeholders that influence CSR activity disclosures and how each is ranked in importance in the two legal systems. Hill and Jones (1992) documented the interdependence of companies and stakeholders. Stakeholder groups provide companies with vital resources, and, in return, companies satisfy stakeholders' expectations and interests. Once the stakeholders are identified, their needs, rights and legal protection should be differentiated between the two legal systems.

The challenge of having limited resources and attention has led to entities seeking ways to categorise and prioritise stakeholders (Crane, 2018). IR allows companies to address the information needs of a wider range of stakeholders (García-Sánchez et al., 2013; Maroun & Cerbone, 2020). Literature documents that stakeholder pressure is one of the determinants of CSR disclosures (Liesen et al., 2015). This is made up of both internal (i.e., shareholders, employees and management) and external (i.e., government, creditors, suppliers, customers and society) stakeholders. International stakeholders are one of the groups that companies respond to in order to maintain a licence to operate internationally (Wicaksono & Setiawan, 2023). Companies also rank stakeholder pressures based on the perceived significance the

stakeholders hold. The provider stakeholder group (shareholders, investors and the community) is perceived to have the most significant influence on managers' disclosure decisions, followed by government regulators, organisational (employee, customers and suppliers) stakeholders and social (competitors, non-governmental organisations and media) stakeholders in that order.

Shareholders are the first group of stakeholders identified because the demand placed on the entity by owners becomes broader as a company's distribution of ownership becomes less concentrated. Keim (1978) documented that dispersed ownership, especially by investors concerned with CSR activities (i.e., pension plans, ethical investors, churches, etc.), increases the pressure on companies to disclose its CSR activities. From a legislative perspective, government and regulatory bodies play a role as corporate stakeholders. Watts and Zimmerman (1978) argue that companies employ CSR activities to reduce the risk of government interference (i.e., regulation) that may hurt a firm's value. The government is also seen as a stakeholder whose interests must be addressed.

Creditors have an interest in a company because they control access to financial resources that may be needed for continued operations (Roberts, 1992). A company's capital structure decisions are part of the overall corporate stakeholder strategy, and creditors having an interest in it means their information needs must also be managed (Ullmann, 1985). Companies are expected to respond to creditors' expectations and concerns regarding CSR activities because they are debt funders, and companies rely on debt financing to fund capital projects.

In addition to the abovementioned stakeholders, companies must respond to social demands. CSR transparency is often associated with moral behaviour, and a company's willingness to disclose CSR-related information suggests that "[t]ransparency has become a sign of cultural (as well as moral authority)" (Sendlhofer & Tolstoy, 2022, p. 269). Public suppliers, customers, employees and communities in which companies operate have also been identified as important stakeholders in the context of CSR disclosures (Huang & Kung, 2010). Suppliers and customers have an interest in a company's CSR activities because they consider the company's reputation

before transacting. Companies use CSR information to differentiate themselves and their products from their competitors, yielding a competitive advantage (Sendlhofer & Tolstoy, 2022).

Employees also have an interest in their company's CSR activities and may demand transparency to avoid compromising their rights and interests. Potential employees may also be considered in CSR disclosures to attract top talent. Sendlhofer and Tolstoy (2022) considered employees' voices to gain insight into employee-driven CSR and found that employee sensemaking implies that companies and management literature could benefit from paying attention to different voices in the company. The last group of stakeholders is the community in which a company operates. Increasing attention to environmental problems has resulted in society putting more pressure on firms to fulfil their societal responsibilities (Yang et al., 2022). CSR is a form of corporate responsibility to society and the environment for business activities that impact the community and environment (Orbaningsih, 2022).

The civil law legal system is more stakeholder-oriented than common law and entails a firm as an independent economic entity that constitutes an alliance of various participants, such as shareholders, management, employees, suppliers[1] and consumers, all desiring the company's success and continuity (Frías-Aceituno et al., 2013). Ball et al. (2000) document how civil law in various countries is sensitive to stakeholders' interests. Companies are accorded legal status by the society in which they operate and are expected to deliver on certain social responsibilities. Such countries follow a communitarian approach and are characterised by laws protecting the rights of employees and other stakeholders, suggesting that such companies will tend to issue a greater volume of information complementary to financial reports (i.e., IR) (Ball et al., 2000).

Common law is oriented toward protecting shareholders, who are considered the most important stakeholders capable of influencing management decision-making (Frías-Aceituno et al., 2013). Companies that operate in countries under the common law legal system are considered

[1] Suppliers refer to suppliers of goods and services, as well as suppliers of debt.

instruments for creating shareholder value, leading them to disclose more financial information than other types of information.

2.2.3 Stakeholder rights

To understand the legal protection of stakeholders' rights, we must identify what those rights are. Ownership[2] rights, control rights and residual income rights have been documented extensively. Ownership rights are allocated to a single group of stakeholders, i.e., the shareholders (Zattoni, 2011). As much as they have ownership rights allocated to them by corporate law, companies must satisfy the interests of other stakeholders who make significant contributions because their efforts and attention are difficult to regulate. Companies could encourage efficient behaviours from other stakeholders and protect their interests by assigning ownership rights (i.e., residual control rights, residual income rights or both) to them (Zattoni, 2011).

Ownership literature consistently emphasises the importance of power and control. An important requirement for ownership is that stakeholders can define the issues or problems to be addressed, the process they will use to address them and their voices in the solutions or decisions (Soste et al., 2015). Another, more subtle requirement for ownership is that stakeholders engage on issues with which they have a close connection or affect an important aspect of their environment (Soste et al., 2015).

Each company has a formal system for allocating rights to benefits and management-specific rules for distributing income and control. Each stakeholder seeks to obtain and preserve the residual rights assigned to them. Under the residual rights of income, it is important to understand the recognised forms of appropriation of the added value of the entity that is not recorded in the formal contract. Residual rights of control are the informal rights in excess of those specified in the contract (Barkhatov et al., 2014).

[2] Control rights and residual income rights are assigned ownership rights (Zattoni, 2011). Ownership is allocated to shareholders from a theoretical perspective; however, in a practical sense, it can be extended to other stakeholders.

Barkhatov et al. (2014) defined the characteristics of stakeholders' residual rights, summarised in Table 1.

Table 1: Stakeholders and their rights

Stakeholder	Main rights	Realisation of residual rights of:	
		Income	**Control**
Shareholders	Ownership, profits and capital growth	Profit and withdrawal of assets	Interference in the operational management
Managers	Governance and compensation	Consumption in the workplace	Discretionary behaviour that is not in line with shareholders' goals
Employees	Use of company assets and compensation	Opportunism	Activities of trade unions
Government	Penalty charges and tax income	Additional tax charges	Used for international and political purposes
Customers	Use of entity's production	Discounts	Choice of continual use of entity's goods or services
Suppliers	Payments	Deferred payment rights	Right to revise terms of the transactions
Society	Prohibition of harmful use	Financing social projects by entities	Adherence to ethical environmental standards and boycott entity production in the case of public interest violation
Investors	Penalty charges	Loyalty	

(Barkhatov et al., 2014)

The rights of stakeholders are not limited to those summarised in Table 1. The shareholders invest in a company, and the output from the investments is growth and profits (residual income right). They also interfere with the entity's operational management (residual right of control). Managers perform their duties, and they extract compensation for it (residual income right). Managers can implement discretionary behaviour that does not align with the shareholders' goals (residual right of control). Employees can indirectly implement their residual income right by displaying behavioural opportunism (e.g., acting with negligence) and influencing the entity's behaviour through trade union activities (residual right of control).

The government can use the entity for political and international purposes (residual right of control). They can also use legislation to implement residual rights of control. Investors (i.e.,

creditors or credit institutions) have a right to use their services to the maximum based on an entity's loyalty (residual right of income). Regular suppliers have a right to prepay (residual income right), and they can also review the terms of the contractual agreements during the execution of the transactions (residual right of control). Shareholders and creditors have different powers to extract investment returns from managers. Shareholders, regardless of the legal system, receive dividends and can vote out directors who do not pay them despite creditors being paid because they can practice their power through collateral repossession (La Porta et al., 1998). A loyal customer has a right to discounts (residual income right) and the right to continue using the entity's goods or services (residual right of control). Lastly, society expects entities to engage in social projects (residual income right) and demands in excess of societal projects. They can also exercise their residual right of control by demanding that entities use processes that are less harmful to the environment and society.

2.2.4 Legal protection

La Porta et al. (1998) provide evidence supporting the significant role of legal systems in developing corporate ownership, corporate capital structures and capital markets. Legal systems can influence investor protection through their ability to influence financial disclosures (Dayanandan et al., 2016; Jaggi & Low, 2000). Statutes governing companies and accounting standards are an example of how legal systems can directly influence investor protection. In some countries, shareholders must be present or send a representative to a shareholders' meeting to be able to vote. The respective acts can protect shareholders by allowing them to mail their proxies to vote if they cannot be present. In that way, they are not excluded from the decision-making process (Jaggi & Low, 2000).

An example of legal systems indirectly influencing disclosure is through the corporate characteristics of the legal system. Common law countries provide higher legal protection to investors and debt holders (La Porta et al., 1998). This leads to common law countries' corporate characteristics, including broad-based corporate ownership and greater levels of debt financing.

These characteristics trigger higher information demand from financial statement users, which is matched with detailed financial disclosures in common law countries (Jaggi & Low, 2000).

The different historical backgrounds of civil and common laws provide significant differences in stakeholder rights' protection and managers' discretion in countries that adhere to these legal systems (Kim et al., 2015). Kim et al. (2015) reveals that common law countries perform better in terms of corporate environmental reporting than civil law firms, which suggests that a company's legal system affects CSR.

The law and the quality of its enforcement are determinants of what rights investors have and how well those rights are protected (La Porta et al., 1998). La Porta et al. (1998) studied the rights of investors by considering both shareholders and creditors. The rights of shareholders were analysed by measuring how strongly a legal system favours minority shareholders against managers or dominant shareholders in the decision-making process. In common law countries, companies are considered instruments for creating shareholder value, and investors are more protected than in civil law countries. La Porta et al. (1998) do not provide evidence that different countries favour different types of investors. However, their evidence points to a relatively stronger stance favouring all investors in common law countries.

A strong legal enforcement system could provide relief for weak legal rules because active and well-functioning courts can step in and rescue investors being abused by management. However, this is not the case because common law countries have stronger law enforcement than civil law countries (La Porta et al., 1998). Civil law countries provide weaker investor protection rights, and the enforcement of those rights is weak (La Porta et al., 1998).

2.3 Law and finance

Jurists' interest in legal systems other than their own has been a matter of long tradition. With common market and all the other expanding programmes of commerce and international trade, it is important to understand the nature and function of countries' legal systems and their impact on corporate reporting (Dainow, 1966). The law and finance theory explains how a country's

legal system is important in analysing economic growth because of how it supports or hinders financial development (Beck & Levine, 2003; Graff, 2007). The theory of law and finance argues that the common law system provides a better framework for financial development and economic growth than the civil law tradition (Graff, 2007). Beck and Levine (2003) explain the theory of law and finance from two perspectives: the political and adaptability mechanisms. The political mechanism holds that civil law supports the rights of the State over private property rights, which implies that common law countries promote financial development (Beck & Levine, 2003). The adaptability mechanism holds that legal systems differ in their decorum and ability to evolve with changing conditions (Beck & Levine, 2003).Graff (2007) builds on the two mechanisms, identifying that investors are treated differently across legal systems. Graff (2007) suggests that common law countries are more likely to adopt new ideas and report on losses sooner than civil law countries.

Research exploring the quality of accounting information in different countries assumes that common law countries provide a firmer foundation for good accounting transparency than civil law countries (Lindahl & Schadéwitz, 2013). Legal systems can directly or indirectly influence financial disclosures, which could affect investor protection (Dayanandan et al., 2016). Comparing the disclosures presented in the integrated reports of companies from countries with different legal systems will contribute to the existing literature by providing evidence supporting or opposing investors being treated differently across legal systems.

Bushman and Piotroski (2006) analysed legal and political institutions' influence on the behaviour of executives, investors, regulators and other market participants. They focused on relations between the key characteristics of country-level institutions and the asymmetric recognition of financial information. The legal aspect that the current study focused on follows the same distinction used by Ball et al. (2000) where common law and civil law countries are compared. Ball et al. (2000) identify that countries with different legal systems have different investor protection rules, and their reporting is driven by the investors' needs.

The globalisation of capital markets and companies' cross-border activities contributes to the need for improved disclosures to encourage transparency and integrity of financial reporting. Existing and potential investors' (local and foreign) resources are protected through disclosure regulations. A country's history influences its financial reporting practices and developments (Muniandy & Ali, 2012). Several factors can affect a country's accounting practices, such as legal and political systems, growth patterns of the economy, capital markets, culture, colonial background and educational systems (Muniandy & Ali, 2012). Muniandy and Ali (2012) argue that common law countries are inclined towards the Anglo-Saxon model, which emphasises fair presentation, transparency and full disclosure in financial reporting.

The quality of reported information and practices must be improved to build the confidence of stakeholders and potential investors (Muniandy & Ali, 2012). International financial markets involve entities that operate in different jurisdictions, which has been a driving force behind the need for a common language for financial reporting (Dayanandan et al., 2016). From a financial reporting perspective, this need is addressed by adopting International Financial Reporting Standards. There is currently a lack of regulation for non-financial information, and different motives determine the reporting. Companies can use the IR Framework's principle-based approach as a guide in preparing their integrated reports. This approach allows significant room for managerial discretion in the preparation process (Velte, 2021).

Common law countries are innovative and open to new business ideas (Graff, 2007). Companies in these jurisdictions disclose more and report losses quicker than companies in civil law jurisdictions (Graff, 2007). Ball et al. (2000) provide evidence of how different investors are viewed when making financial reporting and disclosure decisions. Companies in civil law countries protect stakeholders' interests over those of shareholders by reporting more useful information to their stakeholders (Ball et al., 2000; Simnett et al., 2009). Stakeholder-oriented countries (civil law) have higher levels of CSR transparency than shareholder-oriented countries (common law) (Kolk & Perego, 2008; Meek et al., 1995). Simnett et al. (2009) conducted a study on voluntary disclosures, which supports the same findings. They documented that civil law

countries show a stronger commitment to and orientation towards a coalition of several stakeholders. Civil law countries also show a greater preference for disclosures (i.e., integrated reports) containing a higher quality of information (Smith et al., 2010).

A more recent study that examined the role that a legal system plays in the use and usefulness of certain (strategy and business model) annual report disclosures documented evidence that the disclosures vary in length and usefulness (Athanasakou et al., 2024). The authors found that companies operating under a civil law regime produce less extensive disclosures and that the disclosures had a more pronounced information-asymmetry reducing effect as opposed to companies operating under a common law legal system. This study further supports the notion that a legal system is one of the factors that shape disclosures in annual reports, and in this case it is non-financial reporting.

2.4 Integrated reporting and environmental, social and governance reporting

Stakeholders' demands for forward-looking reporting that considers financial and non-financial information has paved the way for the evolution of IR (Jayasiri et al., 2022). The IIRC defines IR as:

> "a concise communication about how an organization's strategy, governance, performance, and prospects, in the context of its external environment, lead to the creation of value over the short, medium, and long term". (IIRC, 2021, p. 10)

Preparing an integrated report using the IR Framework allows companies to link information such as environmental risks and opportunities with the financial information presented in the financial statements (e.g., Ecim et al., 2020; Maroun et al., 2023; Myeza et al., 2023). The IR system is intended as a new way to disclose corporate information in a holistic and in-depth manner (Eccles & Krzus, 2010; McNally et al., 2017) to shed more light on the interconnections between a firm's strategy, its financial performance and the social, environmental and economic context within which it operates (Gutmayer, 2019). de Villiers et al. (2017) developed a conceptual model of IR influences and documented that the link between IR and external factors is poorly

understood. The current study contributes to that gap by addressing legal systems as an external factor to determine the difference, if any, in the IRQ.

Investors can already invest in almost any asset globally. Potential local and international investors are likely to transfer their resources to countries where their interests are protected through disclosure regulations (Muniandy & Ali, 2012). IR helps investors make better decisions about resource allocation than separate financial and non-financial reports because it provides more reliable, accurate and homogeneous information that explains the business value creation holistically (Cortesi & Vena, 2019; Frías-Aceituno et al., 2014). IR remains a relevant tool for transparency and accountability regardless of alternative reporting formats (Manes-Rossi et al., 2020).

IR remains voluntary in almost all countries except South Africa, where it is a JSE listing requirement. All South African companies listed on the JSE must issue an integrated report annually using the IR Framework as a guide. Despite it being a listing requirement for JSE-listed companies, there is discretion in terms of what companies choose to disclose, resulting in dissimilarities in the quality of information being disclosed by different companies (Maroun & Cerbone, 2024; Moloi & Iredele, 2020). Vaz et al. (2016) and Jensen and Berg (2012) found that although IR remains voluntary in most countries, the legal system does not significantly affect the likelihood of presenting an integrated report; therefore, the country where a company operates does not play a role in whether the company will present an integrated report.

Frías-Aceituno et al. (2013) provide evidence which indicates that civil law countries have a higher level of interest in disclosing integrated information than common law countries. This is because the standardisation of information favours the decision-making process of different stakeholders, and it allows for comparability. A civil legal system addresses the point of management responsibilities, which encourages companies to act honestly and within the law (Frías-Aceituno et al., 2013). These characteristics encourage higher values of social responsibility, favour transparency and improve stakeholder engagements. These practices are not used as substitutive methods for weaker legal enforcement methods to facilitate the decision-

making process. Strict laws and regulations can limit certain company activities significantly, but certain company activities are still undertaken voluntarily, which reduces the benefits society can derive from them (Frías-Aceituno et al., 2013). With these observations in mind, the following propositions were developed and tested:

1) ***Integrated reports in South Africa (a common law country) will be of a different quality than integrated reports in France and Japan (civil law countries).***

2) ***The quality indicators for South Africa (a common law country) will be different from the quality indicators for France and Japan (civil law countries).***

3) ***The quality indicators for South Africa (a common law country) will be different from those for France and Japan (civil law countries) when controlling for industry.***

Legal tradition is a major factor in shaping corporate law (Graff, 2007). KPMG (2020) indicates that there has been an increase in IR in countries such as France, Japan, India and Malaysia. After the introduction of the IR Framework, there has been an increase in ESG information being disclosed by companies in their integrated reports (van Zijl et al., 2017). Many companies, regardless of their country, report on ESG issues by publishing separate reports; however, an increasing number of entities have adopted the IR approach (Landau et al., 2020). The international trend observed is that there has been an increase in environmental reporting since the introduction of the first separate environmental reports in 1989 (Kolk, 2004).

Addressing ESG issues has become a significant part of an entity's business strategy. Entities make use of ESG reporting as a legitimacy tool that external stakeholders can, in turn, use to compare companies (Lokuwaduge & Heenetigala, 2017). Investor interest in ESG information has grown speedily in the past two decades, and ESG is now incorporated into investment analysis and ownership practices (Amel-Zadeh & Serafeim, 2018). Investors in common law

countries have greater information needs, and corporates match this demand by providing detailed disclosures. This allows entities to provide more detailed ESG disclosures in their integrated reports, which investors use in their entity analysis (Jaggi & Low, 2000).

Advocates of an increased focus on ESG initiatives argue that increased ESG disclosure is an important step for entities. There are limited regulatory requirements for ESG disclosure; therefore, manager preferences remain the main determinant of ESG disclosures (McBrayer, 2018). This creates room for dissimilarities among companies' disclosures, as there are no standard requirements for what should be disclosed and how the disclosure should be structured (Moloi & Iredele, 2020).

Chapter 3: Methodology

This study adopted a quantitative method to assess the quality of disclosures in firms' IR in three jurisdictions. The quality assessment model developed by Malola and Maroun (2019) was used to measure IRQ. Descriptive statistics, supported by graphical plots, summarise the data and highlight differences in the quality of the disclosures across countries and industries, as well as metrics dealing with ESG issues in aggregate among the three jurisdictions (Malola & Maroun, 2019). The statistical significance of these differences was tested using suitable non-parametric tests.

3.1 Quality assessment model

Most IR studies focus on the extent that companies comply with various codes and regulations. This is because quality is more difficult to assess than binary present or absent disclosures. The current study makes an important contribution by assessing IRQ in three countries, as well as contributing to our understanding of the effect of law formats on IRQ. Quality is a multifaceted concept that can mean different things depending on the context and perspective of the person evaluating the criteria (Dilling & Caykoylu, 2019). Literature has documented determinants that have been found to affect the quality of integrated reports, which also indicates that there is no one way to determine quality. The quality tool developed by Malola and Maroun (2019) was used in the current study.

3.1.1 Quality assessment tool

The first element of IRQ is the quantity indicator because insufficient information cannot be regarded as high quality. The quality was scored based on the number of sentences in the integrated report over the average number of sentences per category (i.e., ESG) for entities in a particular country and industry. This is in line with Malola and Maroun's (2019) model; however, in the current study, the quality was compared to the average number of sentences disclosed by entities in an industry, as well as the country.

$$QI_{it} = \frac{Vol_{it} - \overline{Vol_{it}}}{\overline{Vol_{it}}} \quad \text{.....QI1}$$

$$QI_{it} = \frac{Vol_{it} - \overline{Vol(industry)_{it}}}{\overline{Vol(industry)_{it}}} \text{.....QI2}$$

where QI_{it} is the quantity indicator (QI), Vol_{it} is the volume of disclosure (the total number of sentences) in the integrated report and $\overline{Vol_{it}}$ is the average number of sentences for entities in the same country (QI1). The second equation (QI2) is similar to the first (QI1); the difference is $\overline{Vol(industry)_{it}}$, which is the average number of sentences for entities in the same industry.

The density indicator (DI) is the second element because quantity does not necessarily equate to quality. Density was added to score the detail in the content disclosed in the integrated reports. As the current study focused on ESG information in IR, the density measure (Equation DI) was used to measure the ratio of the number of sentences pertaining to ESG to the number of sentences in the integrated report.

$$DI_{it} = \frac{N_{it}}{K_{it}} \text{.....DI}$$

where DI_{it} is the DI, N_{it} is the total number of sentences containing ESG information and K_{it} is the total number of sentences in the integrated report.

Measurement is the third indicator used to identify information disclosed in monetary form. This indicator supports the idea that quantifying information contributes to how stakeholders interpret qualitative information (McNally & Maroun, 2018). The measurement indicator (MI) was calculated as the ratio of the sum of the weighted value of all the sentences that contain information on the content elements over the total number of sentences (Equation MI).

$$MI_{it} = \frac{1}{3K_{it}} \sum (n_{it-w}) \text{.....MI}$$

where MI_{it} is the MI, n_{it} is the total number of sentences with content element disclosures and K_{it} is the total number of sentences in the integrated report. Each of the sentences was coded as either qualitative (1), quantitative (2) or monetary (3), with *w* an indicator variable.

The relevance indicator (RI) focuses on substantive versus symbolic information. Disclosures in which the entity identifies and proactively takes responsibility for its actions and ESG impact are considered substantive. Information that deals with the broader policies and practices that do not necessarily address a specific issue and its consequences is considered symbolic. The RI was calculated as a ratio of the sum of all the substantive content element disclosures to the total number of sentences (Equation RI).

$$RI_{it} = \frac{1}{K_{it}} \sum (n_{it-Sub_{ijt}}) \text{.....RI}$$

where RI_{it} is the RI, K_{it} is the total number of sentences in the integrated report, n_{it} is the content element of an integrated report and Sub_{ijt} is an indicator variable (1 if the sentence contains substantive information and 0 if the content is non-substantive).

The last indicator is the ease of interpretation indicator (EoII), which considers visual mediums' (graphs, diagrams and tables) role in assisting users with understanding information. This is in line with Malola and Maroun (2019). Because the current study is a cross-country analysis, the ease of interpretation was compared to the average EoI of information disclosed by entities in a particular country rather than an industry (Equation EoII).

$$EoII_{it} = \frac{1}{\overline{Va_{it}}} \left(\frac{Va_{it}}{A_{it}} - \overline{Va_{it}}\right) \text{.....EoII}$$

where $EoII_{it}$ is the EoII, A_{it} is the total surface area of the integrated report, Va_{it} is the surface area devoted to visual mediums and $\overline{Va_{it}}$ is the average of the EoII of the entities in the same country. The integrated report's surface area and the surface area of every graph, diagram and

table were calculated using the length and breadth of the pages and the individual diagrams, graphs and tables.

The total IRQ is the sum of all five indicators, and they represent equal weightings.

$$IRQ1 = QI1 + DI + MI + RI + EoII \ldots\ldots\ldots\ldots\text{IRQ1}$$

$$IRQ2 = QI2 + DI + MI + RI + EoII \ldots\ldots\ldots\ldots\text{IRQ2}$$

Two IRQ scores were calculated depending on the QI score (Equations IRQ1 and IRQ2). The QI1 score was calculated using the average of all the companies in a particular country, and QI2 was calculated using the average of the companies within the same industry in a particular country. The quality indicators are summarised in Table 2.

Table 2: Summary of quality indicators

Quality element	**Explanation**
Quantity indicator	The number of sentences in the integrated report
Density indicator	The number of sentences related to environmental, social and governance
Measurement indicator	The MI measures the use of qualitative and quantitative disclosures
Relevance indicator	The RI measures the substance of each sentence (symbolic or substantive)
Ease of interpretation indicator	The EoII measures the ease with which the information can be interpreted. This indicator measures the surface area dedicated to visual mediums.

3.2 Population and sample

The study's sample comprises the top 20 (by market capitalisation as at 31 December 2021) companies listed on the Euronext Paris, Japan Exchange Group and the JSE in the Oil and Gas, Basic Materials and Financial Services industries that publish integrated reports in English.

In the case of dual-listed companies, the country of primary listing was considered when selecting the study's sample. There are 60 firm observations in the sample, 20 from each country. Nine entities are Oil and Gas, 14 are Basic Materials and 37 are from the Financial Services industry. The data utilised in this study pertains to the 2021 year, as it represented the most recent and comprehensive dataset available at the time of data collection.

The research is exploratory in nature, aiming to determine the existence of differences in IRQ rather than to generalise to a larger population. Focusing on the top 20 companies in the three countries provides a well-balanced approach that supports both analytical rigor and practical feasibility. These companies are typically recognised as leaders in sustainability reporting and performance, making them ideal subjects for in-depth analysis. Analysing the integrated reports of leading companies provides valuable insights into best practices and common shortcomings in IR implementation.

The data collection process was time consuming and a top 20 also ensures that the sample size remains manageable for conducting qualitative assessments analysis. These firms typically produce more detailed and accessible integrated reports.

The top 20 companies are more likely to have better disclosure and financial resources to prepare integrated reports for their specific jurisdictions (Jennifer Ho & Taylor, 2007; Lang & Lundholm, 1993). The sample included companies from environmentally and socially impactful industries because these industries are considered sensitive, and they are expected to present superior ESG performance regardless of size (Garcia et al., 2017). The Oil and Gas, Basic Materials, and Financial Services industries are considered environmentally and socially impactful because of their influence on sustainability, resource management, and social responsibility (Alazzani & Wan-Hussin, 2013; Huang & Ge, 2024). Although Financial Services have an indirect impact, they are increasingly adopting socially responsible behaviours and are making efforts to conduct business in accordance with the needs of various stakeholders (Lee et al., 2024). These industries influence sustainability through resource use, community impact,

and financing, driving broader ESG practices across the economy. Although all three industries are considered environmentally and socially impactful, they face different ESG risks due to the nature of their operations.

Companies that operate in the basic materials sector deal with risks to communities and the environment as their operations contribute significantly through pollution, as well as damage to the natural environment through mineral extractions (du Toit et al., 2024). These companies disclose information on the safety of the workplace, supplier practice and how resources are consumed. Companies in the Financial Services industry deal with indirect ESG risks through its lending and investment activities. These companies often include climate scenario analysis and governance policies. The Oil & Gas industry is faced with direct environmental and climate-related risks, such as high greenhouse gas emissions (GHG). Consequently, the disclosures are heavily focused on GHG emissions, energy efficiencies and water-use and management.

France, Japan and South Africa are among the top ten countries with an increase in companies that published integrated reports between 2017 and 2020 (KPMG, 2020). By comparing South Africa to both countries, we can observe how consistent the civil law influence is, rather than attributing reporting differences to just one civil law nation. Using two peer countries helps validate the findings, reducing the chance that conclusions are skewed by unique country-specific factors. Comparing South Africa to one civil law country risks observing the difference in reporting quality on a legal systems basis only, when other country-specific factors (like economic development or institutional maturity) might be contributing to the difference.

South Africa was selected as the common law county as it is considered to have a leading role in IR (Arul et al., 2021). France has a fairly developed ESG framework and Japan, while not as prescriptive, it encourages long-term value creation through its Corporate Governance Code (Japan FSA, 2022).

Large economies such as the United States (U.S), Germany and China were excluded from this study. Although the U.S has a strong financial reporting framework it doesn’t have a clear

approach to integrating ESG and financial disclosures (Eccles & Klimenko, 2019). In Germany, companies report sustainability separately from financial reporting which limits the integration of the two (KPMG, 2020). In China, the IR framework is still in early stages of development. Some companies have adopted IR practices the Ministry of Finance released draft sustainability disclosure standards in 2024 aiming for alignment with the International Sustainability Standards Board (ISSB) by 2030 (China Briefing, 2024). South Africa, France and Japan have more mature and diverse IR practices shaped by different legal systems and regulatory frameworks.

3.3 Data collection

Each company's latest available integrated report was analysed using a content analysis guided by Malola and Maroun's (2019) model and described in Section 3.1.1. Each report was obtained from the company website. South African entity's reports were easily accessible. Two entities in Japan had protected documents, which were excluded because the sentences could not be copied and images could not be measured. Obtaining French entities' integrated reports was challenging. In France, most entities disclose their integrated reports as part of the Universal Registrar Document. The process started with obtaining the individual integrated reports, and where they were unavailable, the Universal Registrar Document was analysed to identify if the integrated report was included. If it was included, the report was extracted and analysed, given that it was marked as an integrated report. Any other information obtained outside the IR section was not analysed in this study.

3.3.1 Unit of measure

Each integrated report was broken down into sentences and analysed separately. Where information was disclosed in a list or bullet summaries, each line was considered a sentence. Where the list item consisted of multiple sentences, each item was considered a sentence. The diagrams, graphs and tables were analysed separately from the sentences. Each diagram was named and measured to calculate the surface area. The approach developed by Amel-Zadeh and Serafeim (2018) was used to identify the ESG information. Environmental issues include but are not limited to issues that address carbon emissions, water consumption and waste

generation. Social issues include but are not limited to those that relate to employee makeup, product information and customer-related information. Governance issues include but are not limited to those that relate to political lobbying, anti-corruption and board diversity (Amel-Zadeh & Serafeim, 2018). The quality assessment tool was applied to each sentence, diagram, graph, and table as a unit of analysis.

A Microsoft Excel spreadsheet was created for each country, and each entity had two tabs: one for sentences and one for visual mediums. The first tab listed all sentences, and each sentence was analysed and categorised as context, commitment/expectations, objectives, actions or result. The sentences were further categorised as qualitative, quantitative or monetary. Each sentence categorised as a result was further coded as good news, bad news, absolute or relative. Sentences coded as results were also coded as comparative or not. Each sentence coded as comparative was further coded to identify as being compared to time, space or a target.

Each diagram, graph and table under the visual mediums tab was categorised as a circle, rectangle or other, and its surface area was documented. The total surface area of visual mediums for each document was calculated and used in Equation EoII.

The data was summarised under a third tab, showing each company's total number of sentences, total number of pages, total surface area of the integrated report and total surface area for visual mediums. The summary tab also captured the different indicators per company per country. Appendix A demonstrates extracts of coding the sentences and visual mediums.

3.4 Data analysis

The collected and coded data were analysed using descriptive statistics and graphical plots. The study examined the differences in IRQ according to each indicator (i.e., QI, MI, RI, DI and EoII), as well as the total IRQ. Descriptive statistics were used to compare countries, as presented in tables and graphs.

The Kruskal-Wallis test was used to identify any significant differences in the quality indicators and overall IRQ between common and civil law countries. The same test was also used to identify

any significant differences in the scores between industries. The next step was determining which specific combinations the differences were evident using a pair-wise Mann-Whitney U test. Figure 2 depicts the study's structure.

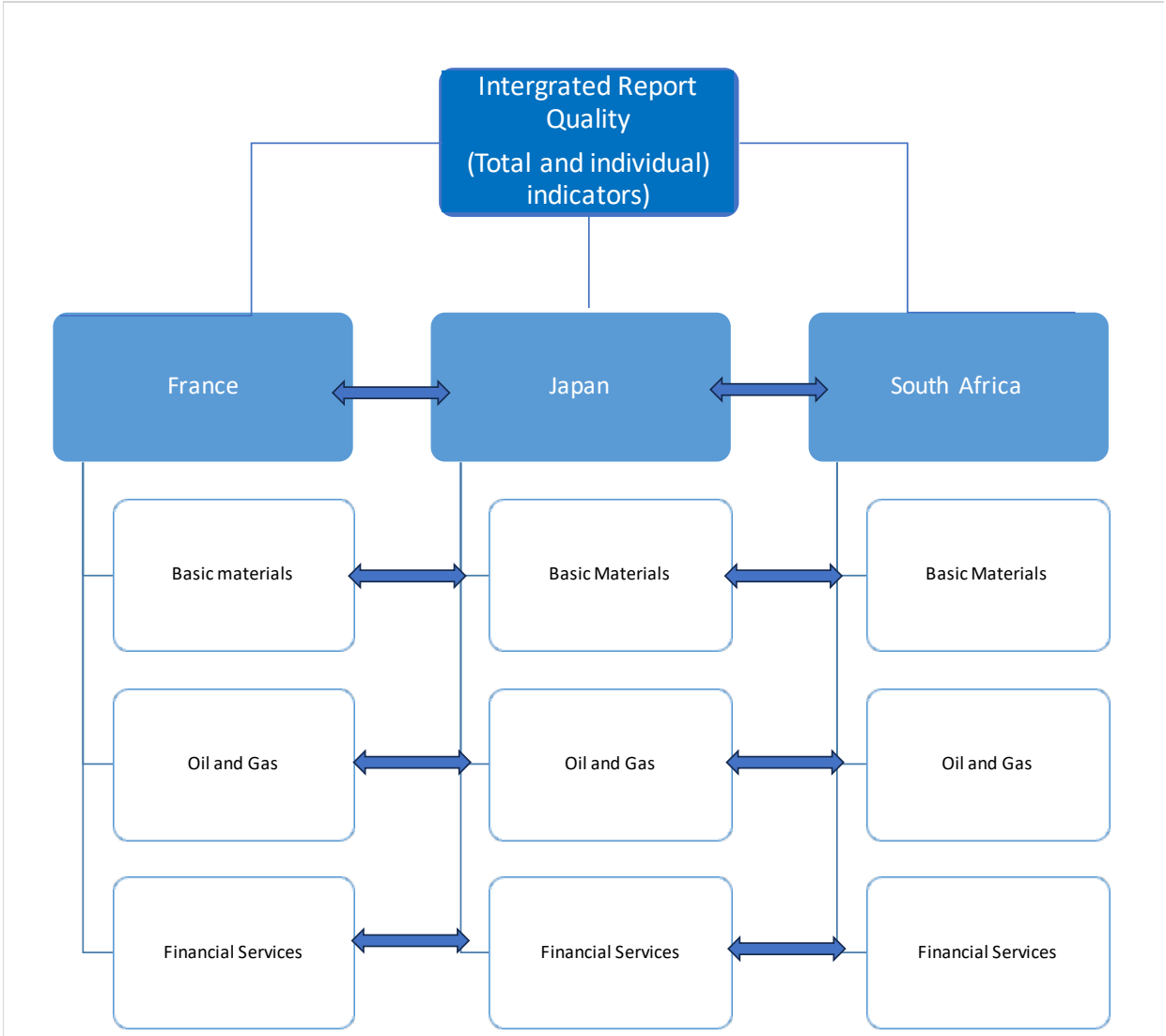


Figure 2: Structure of the study

3.4.1 Test for normality

Based on the normality tests performed, not all the independent variables are normally distributed[3]. Not all variables are normally distributed, so a non-parametric test was used to determine if the IRQ scores vary according to the grouping variables (i.e., the legal system or

[3] A Kolmogorov-Smirnov and Shapiro-Wilk test were performed to assess normality within the quality indicators. Appendix C graphically illustrates the results of the normality test.

industry). Spearman's rho, supported by Kendal's tau-b, was used to analyse the correlations between the quality indicators. A Kruskal-Wallis test was used to examine the differences in the IRQ (the y-value) between the three countries, treating each IRQ indicator as an independent variable (the x-value). The differences in quality indicators scores were examined in total for each country, as well as within each country among the different industries. The differences in quality scores were also examined for each industry regardless of the country, as well as within each industry between the countries.

3.5 Validity and reliability

The study relied on a tried-and-tested model by Malola and Maroun (2019). The necessary assumptions of the statistical tests were complied with to ensure validity and reliability. Table 3 explains each assumption and how each one was addressed.

Table 3: Assumptions of each of the tests

Assumptions	**How it was addressed**
Shapiro-Wilk test	
The test is designed for univariate variables.	As there were multivariate variables, each quality indicator was tested for normality to address this assumption.
The test is more suitable for a moderate sample size of between three and two thousand.	The sample of sixty is within range.
The test is designed for continuous data.	Each of the indicators was calculated to assign a value. The values are continuous because they can take any value and they are a measure of something and not counted.
Kruskal-Wallis test	
The test is suitable for data that is not normally distributed.	The results of the normality test confirm that the data was not normally distributed.
The data needs to be ordinal.	The countries were ordered from 1 to 3 and similarly the industries were ordered according to how environmentally and socially impactful they are.
The test is robust for outliers.	In this case, any outliers related to the integrated report's length remained as part of the sample.
The test is suitable for three groups or more.	This study considered three countries and three industries.

Mann-Whitney U	
The assumptions are similar to the Kruskal-Wallis test assumptions except this test allows for two independent groups.	This allows for the countries and industries to be compared to answer the research questions.

Reliability was achieved by consistently applying the rating criteria for each integrated report. The information being analysed is publicly available on the companies' websites, which minimises the risk of human error. The data was only coded by one researcher, which addresses the challenges of inter-coder reliability.

3.6 Ethics

No ethics clearance was required since the study used publicly available information and no other human involvement was required. The researcher was not exposed to any additional risks by completing the data collection and analysis than they would ordinarily be exposed to in an accounting profession.

Chapter 4: Results

The first part of this chapter covers descriptive statistics and overall observations. Section 4.1.2 summarises and details the correlations between the quality indicators. In the initial analysis summarised in Sections 4.1.3 and 4.1.4, the differences between the countries and industries are analysed. This is followed by an analysis of the differences between quality scores within each country between industries, as well as within each industry between countries. Section 4.1.5 details the differences by pairing the legal systems and industries.

4.1 Results analysis

On average, an integrated report consisted of 1 148 sentences over an average of 92 pages (Table 4a). The lengthiest report had 4 331 sentences which is eighteen times longer than the report with the least number of sentences (229 sentences). The average DI of 0.516 (Table 4a) shows that, on average, 51.6% of the information disclosed in the integrated reports consists of CSR information. On average, 19% of the integrated report's surface area is dedicated to visual mediums (Table 4a). The above observation supports the findings by Athanasakou et al. (2024) that companies in civil law countries have shorter reports than companies in common law countries.

Table 4a: Descriptive statistics

Descriptive statistics	Mean	Median	Standard deviation	Minimum	Maximum
Number of pages	92	71	68	27	344
Number of sentences	1 148	949	726	229	4 331
QI1	- 0,000	- 0,121	0,427	- 0,637	1,423
QI1	0,037	- 0,102	0,469	- 0,683	1,396
DI	0,516	0,536	0,146	0,251	0,901
MI	0,374	0,371	0,021	0,339	0,434
RI	0,213	0,210	0,087	0,044	0,439
EoII	0,190	0,159	0,112	0,028	0,535
IRQ1	1,293	1,304	0,442	0,552	2,776
IRQ2	1,329	1,275	0,476	0,522	2,470

Overall, the civil law countries' IRQs are better than the common law countries (Table 4b). Interestingly, France has the highest IRQ1 score of 1.34, while Japan has the highest IRQ2 score of 1.38. South Africa and France's IRQ1 and IRQ2 scores are relatively similar, but Japan's IRQ1 (between companies in the same country) and IRQ2 (between companies in the same industry) scores are markedly different. This indicates that South African and French companies are not sensitive to the industry type, while Japanese companies are.

Table 4b: Descriptive statistics by country

	Common law		Civil law			
	South Africa		Japan		France	
Percentage of surface area dedicated to visual mediums	18%		27%		11%	
Total number of environmental, social and governance sentences	***934***		***457***		***298***	
Qualitative	821	88%	427	93%	258	87%
Quantitative	77	8%	26	6%	33	11%
Monetary	36	4%	4	1%	7	2%
Sentences coded by results	***56***		***8***		***13***	
Good news	15	27%	3	38%	4	31%
Bad news	5	9%	0	0%	0	0%
Absolute terms	26	46%	4	50%	7	54%
Relative terms	10	18%	1	12%	2	15%
Average indicators						
Quantity 1*	*0,00*		*0,00*		*0,00*	
Quantity 2**	*-0,02*		*0,12*		*0,01*	
Density	*0,51*		*0,44*		*0,60*	
Relevance	*0,38*		*0,36*		*0,38*	
Measurement	*0,20*		*0,19*		*0,25*	
Ease of interpretation	*0,18*		*0,27*		*0,11*	
Integrated report quality 1*	*1,28*		*1,26*		*1,34*	
Integrated report quality 2**	*1,26*		*1,38*		*1,35*	

*between companies in the same country; ** between companies in the same industry

Table 4b shows that the overall IRQ scores are above 1.0 for all countries, which is an improvement on the results observed for South Africa by Malola and Maroun (2019), which were 0.66 and 0.69 in 2015 and 2016, respectively. This suggests that the risk of companies using IR

as a means of greenwashing may have reduced as the quality of what is being disclosed has improved. Civil law countries have higher IRQ scores than South Africa (a common law country). The overall average IRQ1 score is higher for France (1.34), a civil law country, than both South Africa (1.28) and Japan (1.26). The average IRQ2 is higher for Japan (1.38) than France (1.35) and South Africa (1.26). France's higher IRQ1 score might be because France has a well-developed ESG Framework compared to South Africa and Japan (Singhania & Saini, 2021). Although South Africa and Japan operate in different legal regimes, they are considered to have rapidly improving ESG Frameworks (Singhania & Saini, 2021). South Africa is considered to have a leading role in IR (this is overall, including non-ESG-related information), but the similarities between Japan and South Africa may be a consequence of Japan mimicking South Africa (Arul et al., 2021).

The DI shows that, on average, 60% of the information presented in the French entities' integrated reports is ESG-related, whereas Japan and South Africa have an average of 44% and 51%, respectively (Table 4b). French entities have the least number of pages and sentences, and the higher average DI demonstrates that integrated reports concentrate on ESG information rather than focusing on traditional financial and non-financial information in France. The French entities disclose their integrated reports as part of the Universal Registration Document and financial statements as part of the Annual Report, which is a separate document. The DI is expected to be higher because each section in the Universal Registration Document focuses on different disclosures such as legal, economic, financial and non-financial.

France is distinct from Japan and South Africa for the other indicators except the MI. On average, the MI is below one (Table 4b), indicating that most information disclosed is qualitative for all countries, regardless of their legal system. As seen in Table 4b, qualitative information makes up over 87% of ESG information disclosed in the integrated reports for all countries.

Figure 3 portrays the average number of sentences, maximum, minimum and average number of pages per country. Both French and Japanese (civil law) companies' average page lengths are below 100 (44 and 88 pages, respectively), while South African (common law) reports are

longer, with an average of 144 pages. This finding supports the conclusions of Jaggi and Low (2000), who find that common law stakeholders demand more information, often translating into the provision of increased disclosure and longer reports. The range between the maximum (94) and minimum (27) number of pages for France indicates that French entities' integrated reports are not vastly different than Japanese entities, with a maximum of 344 and a minimum of 40 pages, and South Africa, which has a maximum of 288 and a minimum of 43 pages. Nineteen of the 20 French entities have 60 pages or less, further validating that the integrated reports are generally the same length. It is important to note that although Japan has the entity with the most pages overall, the rest of the entities in Japan have less than 125 pages, which drives the average down to 88 pages. South Africa has five entities with less than 100 pages; this indicates that most South African entities' integrated reports are generally around the same length.

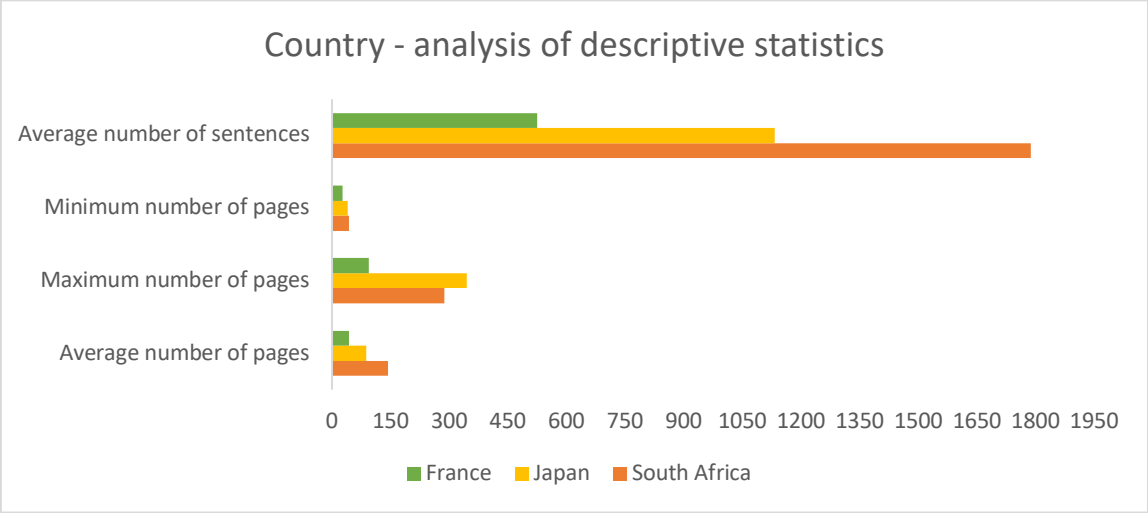


Figure 3: Number of pages and sentences making up integrated reports per country

Common law countries typically recognise losses sooner than civil law countries (Graff, 2007). This is observed in the context of disclosed ESG results, and South Africa is the only country reporting ESG results considered bad news. The major difference between the years included in Malola and Maroun's (2019) study and the current study is that entities were affected by the global COVID-19 pandemic in the year the current study relates to. As such, extensive

disclosures were dedicated to COVID-19 as it had a significant financial impact and required entities to adjust how they structured their operations during the pandemic.

Lastly, the surface area dedicated to visual mediums is 11% for France, 27% for Japan and 18% for South Africa. For South Africa, this is higher than in 2015 and 2016, as reported by Malola and Maroun (2019) (both years below 10%). This may be considered an improvement as companies are moving towards using more visual information in their external reports, which supports Ernst and Young's perspective that using graphs, tables, diagrams and icons achieves conciseness, integration and more effective communication (EYGM Limited, 2021).

4.1.1 Results of Spearman's rho and Kendall's tau-b

Spearman's rho and Kendall's tau-b results are summarised in Table 5. These tests determined the existence, significance, strength and direction of relationships between the quality indicators. The correlations for QI1 and QI2 based on Kendall's tau-b and Spearman's rho are 0.746 and 0.894, respectively.

Table 5: Correlation matrix

	QI1	QI2	DI	MI	RI	EOII	IRQ_1	IRQ_2	Country	Industry
					Correlations					
*QI1	1,000	**0.894****	**-0.270***	**0.268***	0,030	0,177	**0.874****	**0.783****	0,061	0,127
*QI2	**0.746****	1,000	**-0.283***	0,185	-0,017	0,190	**0.787****	**0.871****	0,045	0,166
*DI	**-0.187***	**-0.190***	1,000	**0.356****	**0.346****	**-0.298***	0,064	0,060	-0,230	**-0.289***
*MI	**0.179***	0,124	**0.232****	1,000	**0.678****	**-0.337****	**0.380****	**0.330***	-0,070	-0,178
*RI	0,021	-0,020	**0.245****	**0.487****	1,000	-0,185	**0.282***	**0.260***	-0,227	-0,181
*EOII	0,129	0,136	**-0.200***	**-0.225***	-0,116	1,000	0,251	**0.266***	**0.365****	-0,196
*IRQ_1	**0.691****	**0.594****	0,044	**0.259****	**0.202***	0,164	1,000	**0.913****	-0,062	-0,056
*IRQ_2	**0.600****	**0.698****	0,028	**0.227***	**0.186***	**0.180***	**0.774****	1,000	-0,057	-0,044
*Country	0,051	0,038	-0,161	-0,067	-0,173	**0.255***	-0,049	-0,045	1,000	-0,104
*Industry	0,108	0,132	**-0.227***	-0,142	-0,145	-0,159	-0,039	-0,036	-0,094	1,000

** Correlation is significant at the 0.01 level (2-tailed)
* Correlation is significant at the 0.05 level (2-tailed)
Spearman's rho correlations are above the diagonal and Kendall's tau-b correlations are below the diagonal

Positive correlations:

QI1 (r_s = 0.874), QI2 (r_s = 0.787), MI (r_s = 0.38) and RI (r_s = 0.282) all show a strong positive correlation with the overall IRQ1 (Table 5). The same is observed for IRQ2, having a strong positive correlation with QI1 (r_s = 0.783), QI2 (r_s = 0.871), MI (r_s = 0.330) and RI (r_s = 0.260). In addition, IRQ2 is strongly correlated with the EoII (r_s = 0.266).

The strong correlation between overall quality (IRQ1 and IRQ2) and Q1 and Q2 may indicate that quantity can be used as a proxy for quality or that companies that disclose high-quality reports have more to disclose. This may also mean that companies use IR to improve transparency (Sun, 2024). However, companies must also be careful not to disclose too much, which could negatively impact the overall quality.

There is a strong correlation between the overall quality scores (IRQ1 and IRQ2) and MI. This may indicate that companies use quantified information to enhance the credibility of their integrated reports. Järvinen et al. (2020) found that quantified information, specifically environmental information, enhances accountability and that companies use this information to make strong claims or provide talking points about their actions. This may not be the case for the overall integrated report, as seen in Table 4b, where most of the disclosed ESG information is qualitative (over 87%) and not quantified.

The MI for the entities with the highest IRQ scores is 0.42 for France, 0.34 for Japan and 0.39 for South Africa. The MI for the entities with the lowest IRQ scores is 0.37 for France, 0.35 for Japan and 0.36 for South Africa. This supports the finding that companies use quantified information to increase their credibility, except in Japan, where the company with the lowest IRQ score had a higher MI than the company with the highest IRQ score.

Companies with high-quality integrated reports typically include more substantive information and detailed actions taken rather than broader policies and practice information. The company with the highest IRQ score had the highest number of sentences coded as actions. Companies' motivation for disclosures may be driven by the desire to maintain commitment to their

stakeholders. Companies may disclose more substantive information as a form of moral responsibility rather than to gain attention, which is more evident from symbolic disclosures. Faisal et al. (2019) found that high-quality information disclosed is substantive rather than symbolic.

EoII is the last quality indicator positively correlated with the overall IRQ2, demonstrating that companies with high-quality integrated reports incorporate visual mediums. This highlights the value of visual mediums in enhancing the understandability of complex information, and it also supports the notion that people often prefer using visual mediums over traditional plain text and numbers. Cohen et al. (2022) documented that visual mediums improve understandability but, alone, do not provide a full understanding of the reporting entity. Preparers need to be mindful of the type of information that can be presented using visual mediums.

Examples observed during the data collection include visual mediums that summarise the business models and corporate governance structure. Appendix B demonstrates some examples. Visual mediums were often used to demonstrate how one component or issue links to another. Companies also use bar graphs to illustrate year-on-year movements for better visualising and understanding.

It is important to note that there are no negative correlations between the overall IRQ (1 and 2) and the quality indicators, which further supports the inclusion of each indicator in the model. There are, however, strong negative correlations between QI1 and QI2. The strong negative correlation between QI (1 and 2) and DI suggests that a lengthy integrated report does not necessarily mean the company has substantial ESG information to disclose. It could mean that companies that disclose more have other information to disclose other than ESG-related information. This negative correlation may also indicate that IR does not act as a catalyst to improve a company's transparency and decision-making processes related to sustainability practices, given that QI focuses on the overall information and DI focuses more on sustainability-related information. Companies may be using other sustainability reports, in addition to integrated reports, to communicate ESG-related information. Companies may also be devoting

more attention to content element disclosures in their integrated reports and providing repetitive or excessive details. Preparers of IRs must be cognisant not to overwhelm the stakeholders by diverging and making the report difficult to use.

EoII is negatively correlated with the DI (r_s= -0.298) and MI ((r_s= -0.337) indicators (Table 5). This suggests that companies disclosing more ESG information do not necessarily do so through visual mediums or quantified disclosures. Textual attributes have been found to matter more to the broader audience beyond financial analysts (Caglio et al., 2019). The negative correlation between EoII and DI supports this finding and may indicate that companies are cognisant of the composition of stakeholders and consider it in determining how to present their ESG information. Given that textual information matters to a certain group of stakeholders, how companies present the information may indicate that the preparers consider the different groups of stakeholders and what they consider important to them.

The negative correlation between MI and EoII may indicate that companies improve users' readability and understandability by focusing on one aspect (quantified information or visual mediums) and forgoing the other. Figure 4 demonstrates the EoII and MI scores of the companies with the highest and lowest IRQ1. When comparing companies with the highest IRQ scores, the company with the lowest EoII has the highest MI, but the company with the highest EoII is not the one with the lowest MI (Figure 4).

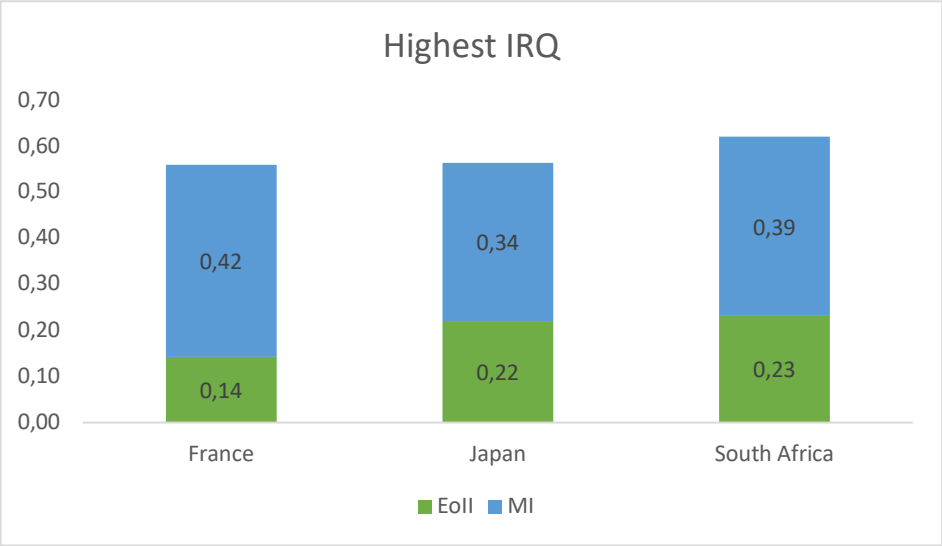


Figure 4: Highest integrated report quality (IRQ1) and corresponding measurement indicator (MI) and ease of interpretation indicator (EoII)

Figure 5 demonstrates the combination of MI and EoII for the companies with the lowest IRQ1 score for each country. The company with the lowest EoII has the highest MI, while the company with the highest EoII has the lowest MI. Comparing civil vs common law companies, there is a conflicting observation because the company with the highest EoII is not always the one with the lowest MI. Further research is warranted to provide more insight to determine if companies prioritise one over the other on a global scale or by comparing civil and common law countries.

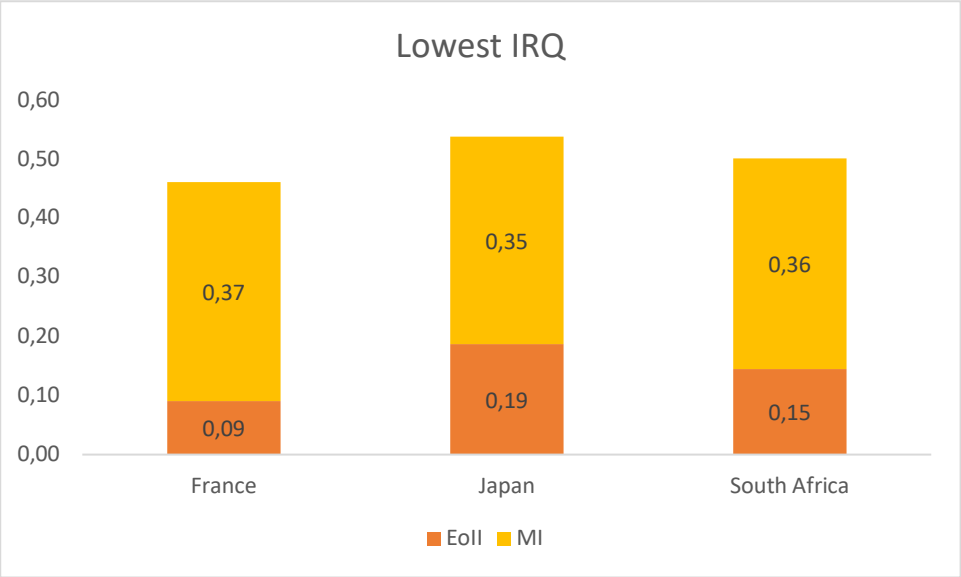


Figure 5: Lowest integrated report quality (IRQ1) and corresponding measurement indicator (MI) and ease of interpretation indicator (EoII)

4.1.2 Results of Kruskal-Wallis and Jonkheere-Terpstra tests

The analysis first examines the differences in report quality according to each quality indicator between countries and industries. Thereafter, the differences between the industries within each country are presented. Lastly, the differences between countries within each industry are discussed. A significance threshold of 5% is used; however, findings that are significant at a 10% level are also reported.

Country test

Figure 6 is a graphical depiction of the average indicators per country.

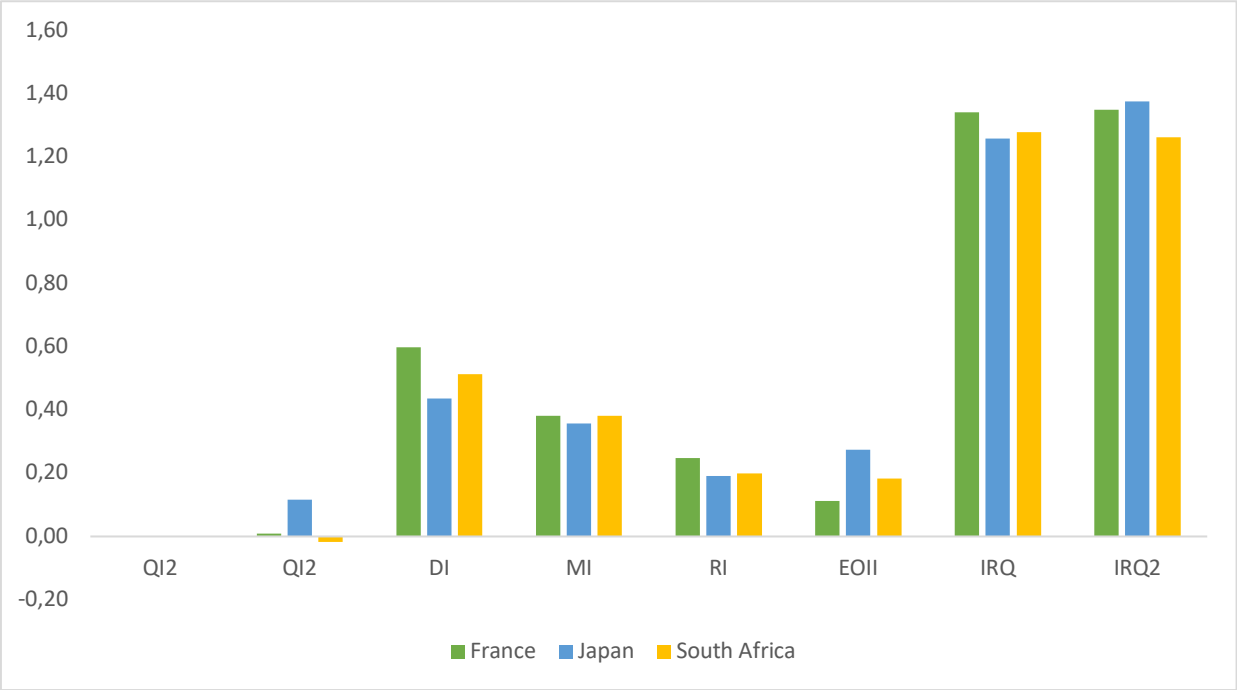


Figure 6: Integrated report quality (IRQ) indicators by country

QI: quantity indicator; DI: density indicator; MI: measurement indicator; RI: relevance indicator; EoII: ease of interpretation indicator

Table 6 summarises the results of the differences between the countries for both the Kruskal-Wallis and Jonckheere-Terpstra tests.

Table 6: Differences in quality indicators between the countries

Kruskal-Wallis Test								
	QI1	**Q12**	**DI**	**MI**	**RI**	**EOII**	**IRQ1**	**IRQ2**
Kruskal-Wallis H	0,231	0,520	**12,088****	**19,979*****	**5,764***	**26,609*****	0,260	0,330
Jonckheere-Terpstra Test								
	QI1	**Q12**	**DI**	**MI**	**RI**	**EOII**	**IRQ1**	**IRQ2**
J-T Statistic	637,000	628,000	483,000	551,000	**474,000***	**786,000***	564,000	567,000

*****significant at the 1% level (2-tailed)*

******significant at the 5% level (2-tailed)*

*****significant at the 10% level (2-tailed)*

The grouping variable was the industries

QI: quantity indicator; DI: density indicator; MI: measurement indicator; RI: relevance indicator; EoII: ease of interpretation indicator; IRQ: integrated report quality

The results for MI indicate that the choice of disclosing ESG information in quantified or monetary terms is viewed differently by the preparers of integrated reports in different countries (Table 6). There is a need to explore further why preparers of integrated reports in different countries decide on a mix of quantified and textual information. The stakeholder mix and how the various

stakeholders influence the disclosures could be studied to better predict how integrated report preparers decide to disclose information. It is the same for the EoII as well. There may also be other country factors, such as the investors' educational backgrounds, playing a part in addition to other factors.

The DI being significantly different at a country level supports the initial observation at an overall descriptive statistics level, where France has more ESG information than other non-ESG information in their integrated reports (Table 6). This further indicates that the maturity of ESG reporting frameworks in France is significantly ahead of South Africa and Japan. Lastly, the RI is also significantly different among the countries because more sentences relate to actions and results for South Africa. This may be due to common law countries' willingness to record losses sooner than civil law countries (Ball et al., 2000). As noted in Table 4b, South African companies' integrated reports have 56 sentences on average dedicated to documenting results. South Africa is considered to have a leading role in IR (Arul et al., 2021), which is also reflected here in that companies have moved towards disclosing substantive rather than contextual information.

Country test based on similar industries

The next step was to consider if there were any statistically significant differences in the reporting quality indicators among industries across different countries. Figures 7 to 9show the difference in the average indicators between countries based on the industry. Figure 7 demonstrates the average IRQ and quality indicators for companies in the Basic Materials industry between countries.

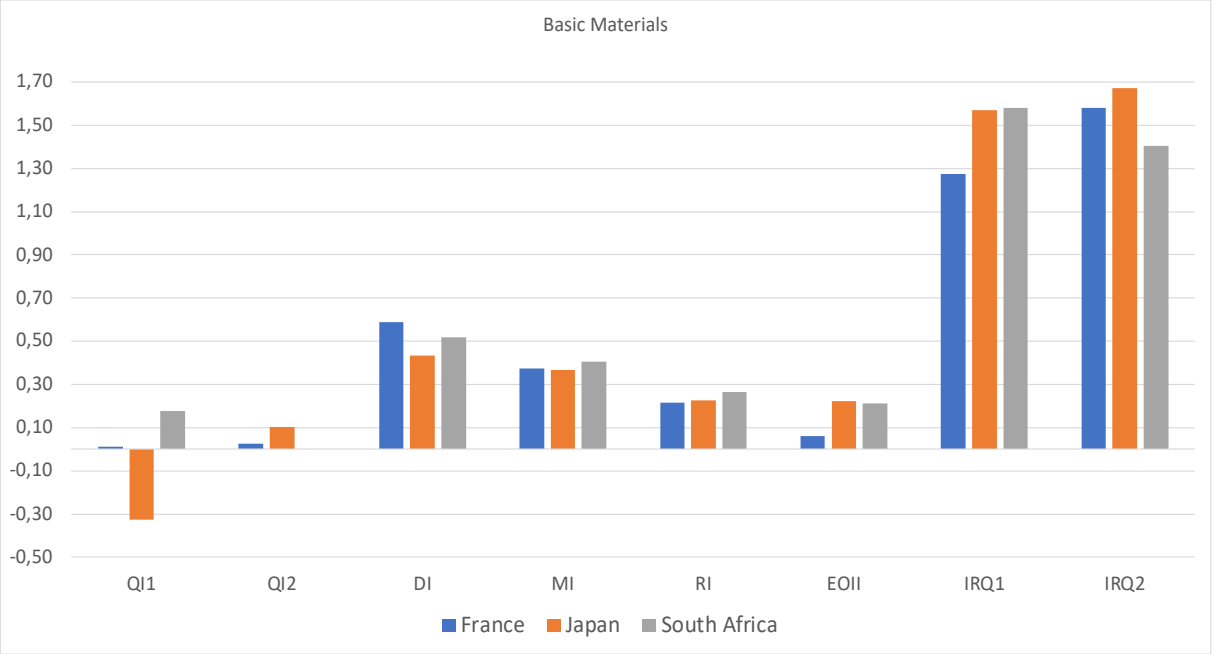


Figure 7: Integrated report quality (IRQ) indicators by country in the Basic Materials industry

QI: quantity indicator; DI: density indicator; MI: measurement indicator; RI: relevance indicator; EoII: ease of interpretation indicator

Figure 8 demonstrates the average IRQ and quality indicators for companies in the Oil and Gas industry in each country.

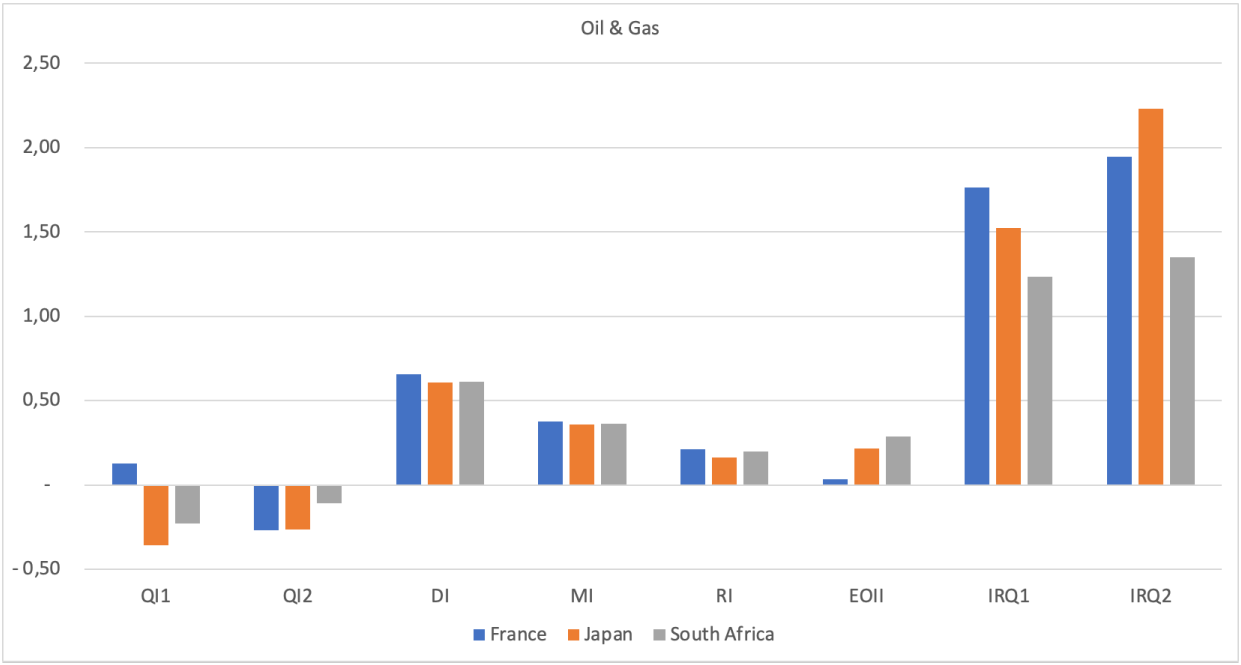


Figure 8: Integrated report quality (IRQ) indicators by country in the Oil and Gas industry

QI: quantity indicator; DI: density indicator; MI: measurement indicator; RI: relevance indicator; EoII: ease of interpretation indicator

Figure 9 demonstrates the average IRQ and quality indicators for companies in the Financial Services industry between countries.

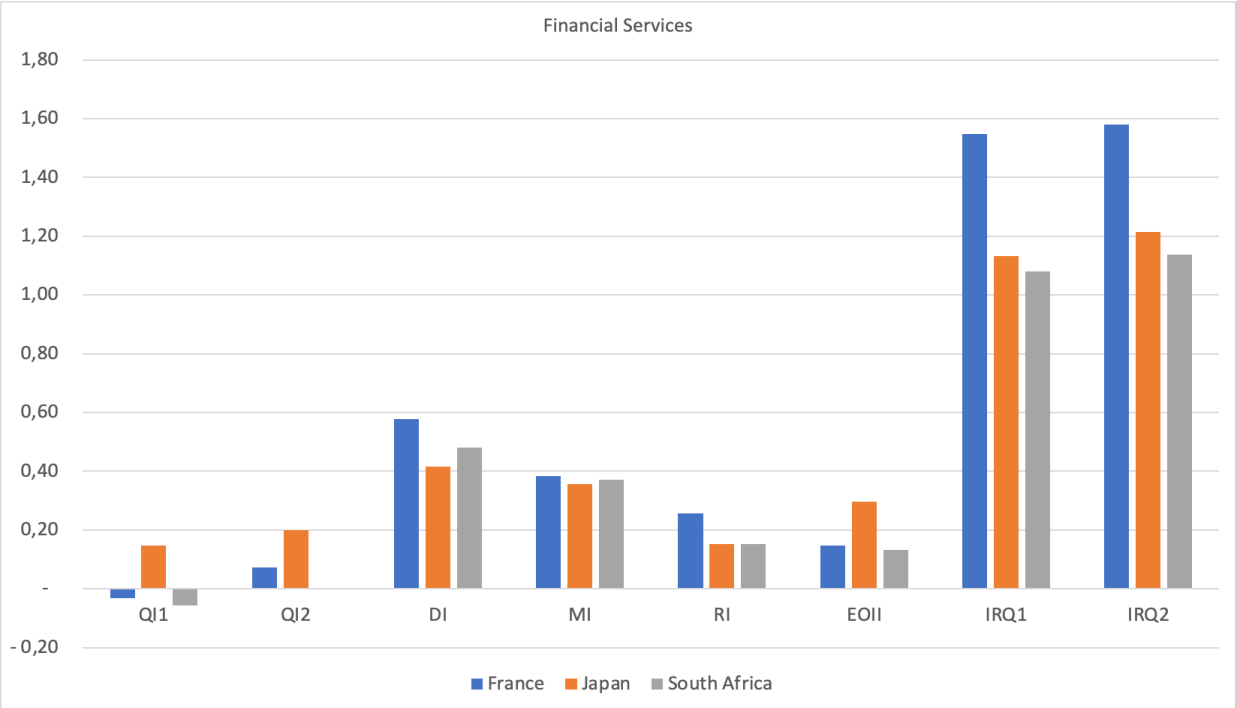


Figure 9: Integrated report quality (IRQ) indicators by country in the Financial Services industry

QI: quantity indicator; DI: density indicator; MI: measurement indicator; RI: relevance indicator; EoII: ease of interpretation indicator

Table 7 summarises the results of the Kruskal-Wallis and Jonckheere-Terpstra tests between industries across the countries

Table 7: Differences in quality indicators between the different industries

Kruskal-Wallis H								
	QI1	**Q12**	**DI**	**MI**	**RI**	**EOII**	**IRQ1**	**IRQ2**
Oil and Gas	2,222	0,622	2,222	**4,622***	4,356	**5,422***	**5,067***	2,756
Basic Materials	**5,066***	0,551	1,752	**8,845****	**7,133****	**8,007****	4,478	1,150
Financial Services	1,650	1,467	**9,431*****	**9,472*****	**6,394*****	18,230	3,850	3,445
Jonckheere-Terpstra Statistic								
	QI1	**Q12**	**DI**	**MI**	**RI**	**EOII**	**IRQ1**	**IRQ2**
Oil and Gas	11,000	13,000	11,000	7,000	**5,000***	**23,000****	8,000	11,000
Basic Materials	43,000	34,000	**34,000***	45,000	43,000	**50,000****	41,000	35,000
Financial Services	232,000	245,000	**163,000***	**167,000***	**137,000****	257,000	199,000	212,000

****significant at the 1% level (2-tailed)*

***significant at the 5% level (2-tailed)*

**significant at the 10% level (2-tailed)*

The grouping variable was the countries

QI: quantity indicator; DI: density indicator; MI: measurement indicator; RI: relevance indicator; EoII: ease of interpretation indicator; IRQ: integrated report quality

Oil and Gas industry

There is a moderately significant difference in the MI (H=4.622), EoII (H=5.422) and overall IRQ1 (H=5.067) between the countries at a 10% level (H=4.622; $p<0.1$). It is important to note that the above is true for the Jonckheere-Terpstra test for the EoII. There is a moderately significant difference between EoII and RI, both at a 10% level (Table 7).

Basic Materials industry

There is a statistically significant difference in the MI (H=8.845), RI (H=7.133) and EoII (H=8.007) between the countries at a 5% level. There is also a moderately significant difference in the DI (H=5.066) between the countries at a 10% level. The Jonckheere-Terpstra test supports this result only in the EoII. It also indicates a moderately statistically significant difference in the MI at a 10% level ((Table 7).

Financial Services industry

There is a statistically significant difference in the DI (H=9.431), MI (H=9.472) and RI (H=6.394) between the countries at a 5% level. There is also a statistically significant difference in the EoII (H=18.23) between the countries at a 1% level. The Jonckheere-Terpstra test supports this result only in the RI at a 5% level. It also indicates a moderately significant difference in the DI and MI, both at a 10% level (Table 7).

Although the Oil and Gas industry is the only one with a significant difference in the overall IRQ between countries, it is interesting to note that amongst the industries, there are some reporting quality differences between countries, which indicates that certain industries may be emphasising certain aspects in their disclosures, which other industries may not. The only indicator that is significantly different consistently between the countries when comparing based on industry is the MI. This further supports the observed results on an overall country level that integrated report preparers in different countries have differing views on how much emphasis to place on quantitative and qualitative information.

The differences between the countries were identified using a pairwise test to determine which countries contribute to these differences, and these are addressed in the next section of this study.

4.1.3 Results for the Mann-Whitney U test

The results of the Kruskal-Wallis and Jonckheere-Terpstra tests indicate statistically significant differences in the quality indicators, discussed in Section 4.1.2. However, these tests do not indicate which industries or countries are statistically different from each other. A Mann-Whitney U pairwise comparison was used to test which countries and industries are statistically significant from each other. The results are split based on the indicators identified in Section 4.1.2 as statistically significant, first on a country basis and then by industry.

Table 8a summarises the country pairwise comparison results, comparing countries based on their legal systems. The overall IRQ scores are the same for the different legal systems, indicating that IRQ is homogenous in an international context. It further emphasises the common perception that IR preparers consider a broader range of stakeholders rather than narrowing their focus to investors. IR has developed over the years, and the overall IRQ scores also suggest that there may be harmonisation in IR disclosures on a global scale.

Table 8a: Country pairwise comparison

	QI1	QI2	DI	MI	RI	EoII	IRQ1	IRQ2
Civil–Civil (France–Japan)	192,000	170,000	**85,000*** **	**39,000*** **	**118,000** **	**31,000*** **	185,000	197,000
Civil–Common (France–South Africa)	185,000	190,000	**122,000** **	190,000	**133,000***	**76,000*** **	183,000	185,000
Civil–Common (Japan–South Africa)	186,000	188,000	**124,000** **	**78,000*** **	177,000	**93,000*** **	196,000	179,000

****significant at the 1% level (2-tailed)*

***significant at the 5% level (2-tailed)*

**significant at the 10% level (2-tailed)*

QI: quantity indicator; DI: density indicator; MI: measurement indicator; RI: relevance indicator; EoII: ease of interpretation indicator; IRQ: integrated report quality

There are differences between civil law countries and between common and civil law countries. The differences in DI and EoII are statistically significant between the pairs at a 1% level (Table 8a). The results observed for the EoII suggest that the amount of ESG-related information and the extent of the use of visual mediums differs significantly regardless of the legal systems. This

suggests that companies consider the stakeholder mix and perceive visual mediums' role differently. The statistically different DI between civil and common law countries indicates the companies' differing stakeholder commitments depending on the legal system in which they operate. Despite this, the significant difference between the civil law countries contradicts this because the extent of their ESG disclosures in the integrated report differs significantly regardless of the two being considered stakeholder-oriented.

The difference in the MI between France and Japan (two civil law countries) and Japan and South Africa (civil law and common law countries) is statistically significant at a 1% level (Table 8a). The use of quantitative and monetary disclosures does not differ significantly between France and South Africa, which suggests that although South Africa's ESG Framework is considered developing while France is considered to have developed, South Africa's leading role in IR is evident. South Africa's leading role is conveyed in how the companies reporting on quantified information, which is considered 'high quality', is not significantly different from that of civil law companies, which are guided by a developed ESG Framework. Lastly, the RI only differs significantly between France and Japan and between France and South Africa at a 5% and 10% level, respectively (Table 8a). The RI indicator focuses on how proactive companies are in taking responsibility, and the results further support the notion that the ESG Frameworks are developing at different paces. Despite their different legal systems, Japan and South Africa still reflect a mimicry disclosure as they do not differ significantly.

Table 8b summarises the pairwise U-statistics comparing the quality indicators by industry.

Table 8b: Industry pairwise comparison

		QI1	QI2	DI	MI	RI	EoII	IRQ1	IRQ2
Oil and Gas–Basic Materials	**N=23**	43,500	59,000	**33,000***	39,000	46,000	49,000	61,000	52,000
Oil and Gas–Financial Services	**N=46**	128,000	129,000	**70,000*****	162,000	112,000	116,000	150,000	145,000
Basic Materials–Financial Services	**N=51**	246,000	214,000	236,000	**146,000****	235,000	219,000	248,000	250,000

****significant at the 1% level (2-tailed)*

***significant at the 5% level (2-tailed)*

**significant at the 10% level (2-tailed)*

QI: quantity indicator; DI: density indicator; MI: measurement indicator; RI: relevance indicator; EoII: ease of interpretation indicator; IRQ: integrated report quality

The DI is statistically different between the Oil and Gas and Basic Materials industries, as well as between the Oil and Gas and Financial Services industries. The MI indicator differs significantly between Basic Materials and Financial Services (Table 8b). This supports the initial observation during the data collection relating to increased disclosures on COVID-19, specifically related to Financial Services regarding the significant monetary disclosures related to International Financial Reporting Standard 9 (Financial Instruments) expected credit losses. There is no statistically significant difference in the EoII, which does not support the findings of Nicolo et al. (2021) that industry environmental sensitivity affects the extent of visual mediums in IR disclosures. It is important to note that, overall, the differences are between legal systems (country) and not between industries. This finding speaks to Roy and Mukherjee (2022), who documented that an informal institution like culture better explains the variations in ESG disclosures among countries than economic factors.

These results indicate that the details of the integrated report that comprise ESG disclosures differ significantly between industries. The observed results are consistent with Nabil et al. (2017), who demonstrated a statistically significant difference in the level of transparency relating to certain elements of ESG across different industries. Ermakova et al. (2023) also documented a study focusing on ESG ratings for Russian companies, and the results indicated that industries have different ESG risks and, therefore, ESG disclosures will not be the same across industries. With this study focusing on ESG disclosures in integrated reports, Ermakova's (2023) results support the observed statistically significant difference between the DI and MI across industries. The MI and DI both focus on the sentences coded as ESG.

Table 9 compares the quality indicators between the legal systems based on industry.

Table 9: Country pairwise comparison based on industry

		QI1	QI2	DI	MI	RI	EoII	IRQ1	IRQ2
Civil law vs Civil law (France and Japan)									
Oil and Gas	**N = 6**	2,000	3,000	2,000	**0,000****	1,000	**0,000****	**0,000****	1,000
Basic Materials	**N = 7**	3,000	5,000	4,000	**0,000****	**1,000***	**0,000****	3,000	4,000
Financial Services	**N = 27**	68,000	65,000	**34,000*****	**29,000*****	60,000	**22,000*****	71,000	65,000
Civil law and Common law (France and South Africa)									
Oil and Gas	**N = 6**	2,000	4,000	2,000	1,000	**0,000****	**0,000****	1,000	3,000
Basic Materials	**N = 11**	8,000	13,000	13,000	**4,000***	7,000	**0,000*****	10,000	12,000
Financial Services	**N = 23**	64,000	61,000	**33,000****	42,000	**24,000****	**38,000***	54,000	55,000
Civil law and Common law (Japan and South Africa)									
Oil and Gas	**N = 6**	2,000	3,000	2,000	3,000	4,000	4,000	2,000	2,000
Basic Materials	**N = 10**	1,000	7,000	4,000	**0,000****	**0,000****	10,000	**1,000****	6,000
Financial Services	**N = 24**	52,000	59,000	44,000	44,000	53,000	**5,000*****	**34,000****	**40,000***

****significant at the 1% level (2-tailed)*
***significant at the 5% level (2-tailed)*
**significant at the 10% level (2-tailed)*

QI: quantity indicator; DI: density indicator; MI: measurement indicator; RI: relevance indicator; EoII: ease of interpretation indicator; IRQ: integrated report quality

The RI differs significantly across all industries in both legal systems. This refers to the results presented in Section 4.1.4 and supports prior literature, which states that common law countries recognise losses sooner (Ball et al., 2000). This was expected given the descriptive statistics revealed that South Africa was the only country that documented 'bad news' in its disclosures. Although the EoII also differs, it is important to note that this difference is also noted between two civil law countries across all industries.

The overall quality (IRQ1) differs significantly between Japan and South Africa at a 5% level within the Basic Materials and Financial Services industries. This finding is important as it may indicate a difference in IRQ between countries with different legal systems. It also refers to South Africa's leading role in IR because it differs from a civil law country that is considered to have a similar developing ESG reporting framework (i.e., Japan) and does not differ significantly from a civil law country (i.e., France) that is considered to have developed in the ESG space (i.e., France). This finding supports prior literature that the environments, that different countries operate in, are an important reason for different levels of ESG disclosures (Huang & Ge, 2024).

Huang & Ge (2024) observed a significant difference in the quality and quantity of ESG disclosures of mining companies in countries with different levels of economic development.

The same is observed between France and Japan in the Oil and Gas industry, where IRQ1 differs significantly. The difference observed between Japan and France, both operating under the same legal system, indicates that other dominating factors contribute to differences in reporting (i.e., the legal system may have a weak impact or none). Also, there is a difference in the IRQ2 between Japan and South Africa in the Financial Services industry, which supports the finding for IRQ1.

Chapter 5: Conclusion

5.1 Key findings

Integrated reporting is an important tool for companies to link information such as environmental risks and opportunities with financial information in the financial statements (e.g., Ecim et al., 2020; Maroun et al., 2023; Myeza et al., 2023). Figure 10 summarises the overall findings. The indicators shown in Figure 10 were significantly different in the pairwise tests between countries.

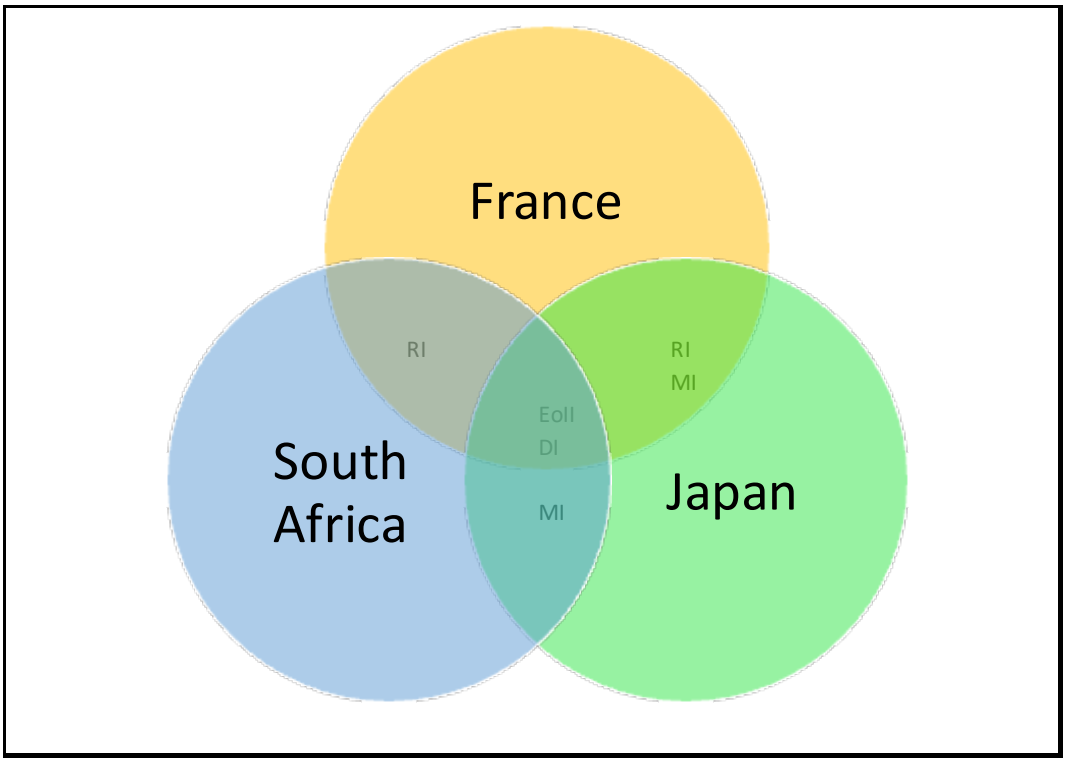


Figure 10: The study's overall findings showing the significantly different indicators between countries

DI: density indicator; MI: measurement indicator; RI: relevance indicator; EoII: ease of interpretation indicator

Overall, this study's findings suggest that the quality of ESG information disclosed in integrated reports is the same regardless of the legal system. When comparing legal systems based on pairing countries, the IRQ1 differs between civil and common law countries when considering the Basic Materials and Financial Services industries. This is the same for IRQ2, specifically in the Financial Services industry. This supports the prior literature where the different countries

are categorised according to their ESG frameworks and the level of development thereof (Singhania et al., 2024).

The legal system of a country can shape the ESG frameworks applied by companies operating in the country due to specific country-mandated reporting(La Porta et al., 2008).This means that companies in the same industry but a different country may follow detailed government-mandated sustainability reporting formats, while its counterpart in another country may follow voluntary standards (e.g., SASB, GRI) with varying depth.

The DI and EoII are the only quality indicators that differ specifically between common and civil law countries. However, it is important to note that these are also different between civil law countries, which suggests that there may be other stronger contributing factors contributing to this difference. Lastly, it is important to note that only France and South Africa did not have a difference in the overall IRQ for all the industries, indicating South Africa's leading role in IR given that it does not fare differently compared to a country with a well-developed ESG Framework. This is also observed in the differences between Japan and France, two civil law countries, which suggests that the development of reporting frameworks may have a stronger contribution to the differences than the legal system.

5.2 Limitations of this study and directions for future research

This study is not without limitations. This section addresses the study's limitations by recommending areas for future research. The sample size was constrained by the time-consuming coding process. There is also a limitation associated with the methodology applied, which raises a problem of subjectivity in the content-analysis phase (Hammond & Miles, 2019). Having a single primary coder somewhat mitigated this subjectivity. The sample size, the unavoidable subjectivity inherent in a content-analysis study and the study's time frame (i.e., one year) limit the generalisability of the results. Future research could consider a bigger sample or a longitudinal analysis to address this limitation. A longitudinal study will help identify which indicators have remained similar and which have changed over time. This may help gain insights into the factors that could be contributing to the changes in quality indicators over time.

This study focused on IR from companies in three countries and three industries, which further impairs the generalisability of the results. The challenge is that the number of companies per industry varies because this study sampled based on market capitalisation. Future research could avert this by focusing on one industry across stock exchanges with the same number of companies for each legal system. This will also promote comparability of the results and improve global generalisability for that industry.

The methodology used does not account for cultural or language differences in disclosures. These differences may influence reporting style, interpretation, and comparability. The language aspect was addressed by only considering reports that are published in English. Prior literature evaluated the impact of culture on the application of accounting rules (Tsakumis, 2007; Morsing & Oswald, 2009; Cieslewicz, 2014). An organisational culture is one aspect that is considered important in understanding how management nurture a culture of sustainability (Morsing & Oswald, 2009). Cieslewicz (2014) documented that national culture can influence institutions, which further influences accounting. Future research can build on this study by focusing on studying the impact of language, culture, and legal systems on integrated report quality.

5.3 Implications

This study contributes to the growing literature on IR, specifically the quality of IR. The number of sentences related to ESG and the surface area dedicated to visual mediums is different regardless of the legal system in which a country operates. This has an implication for regulators and standard setters, more importantly, now that they are working on drafting and implementing standards regarding non-financial disclosures. Although more insight is needed to understand what could contribute to these differences, standard setters and regulators should consider which information is important for different stakeholder groups to set standards that can address an appropriate split between information that is compulsory and voluntary to disclose.

Integrated report preparers must consider the disclosure trends within their industries, not just on a country basis but globally. This would include a detailed analysis of the different factors that contribute to IRQ and benchmarking themselves against their peers to ensure that IR is

homogenous overall and in different aspects (i.e., quantity vs quality disclosures, the surface area dedicated to visual mediums, etc.).

Lastly, although this study found that the disclosures between legal systems are similar, the identified differences inform standard setters regarding their standard-setting process.

References

Aerts, W., Cormier, D., & Magnan, M. (2006). Intra-industry imitation in corporate environmental reporting: An international perspective. J*ournal of Accounting and Public Policy*, 25(3), 299–331.

Alazzani, A., & Wan-Hussin, W. N. (2013). Global Reporting Initiative's environmental reporting: A study of oil and gas companies. *Ecological indicators*, *32*, 19-24.

Amel-Zadeh, A., & Serafeim, G. (2018). Why and how investors use ESG information: Evidence from a global survey. *Financial Analysts Journal*, *74*(3), 87-103.

Arul, R., de Villiers, C., & Dimes, R. (2021). Insights from narrative disclosures regarding integrated thinking in integrated reports in South Africa and Japan. *Meditari Accountancy Research*, *29*(4), 720-739. http://doi.org/10.1108/medar-06-2020-0934

Athanasakou, V., Boshanna, A., Kochetova, N., & Voulgaris, G. (2024). Strategy and business model disclosures in annual reports: The role of legal regime. *The British Accounting Review*, *56*(3), 101190.

Atkins, J., & Maroun, W. (2014). *South African institutional investors' perceptions of integrated reporting*. Association of Chartered Certified Accountants. http://www.accaglobal.com/content/dam/acca/global/PDF-technical/sustainability-reporting/tech-tp-saii.pdf

Atkins, J., & Maroun, W. (2015). Integrated reporting in South Africa in 2012: perspectives from South African institutional investors. *Meditari Accountancy Research*, *23*(2), 197-221. http://doi.org/10.1108/MEDAR-07-2014-0047

Ball, R., Kothari, S. P., & Ashok, R. (2000). The effect of international institutional factors on properties of accounting earnings. *Journals of Accounting and Economics*, *29*(1), 1-51. http://doi.org/10.1016/S0165-4101(00)00012-4

Barkhatov, V., Nikolaeva, E., & Pletnev, D. (2014). The possibilities of positive use of residual control and income rights of stakeholders in the corporation. *Procedia - Social and Behavioral Sciences*, *124*, 521-527. http://doi.org/10.1016/j.sbspro.2014.02.515

Barniv, R., Myring, M. J., & Thomas, W. B. (2005). The association between the legal and financial reporting environments and forecast performance of individual analysts. *Contemporary Accounting Research*, *22*(4), 727-758. http://doi.org/10.1506/75ce-hat9-rh17-lad7

Beck, T., & Levine, R. (2003). *Legal institutions and financial development* (Working Paper 10126). National Bureau of Economic Research. https://www.nber.org/system/files/working_papers/w10126/w10126.pdf

Bushman, R. M., & Piotroski, J. D. (2006). Financial reporting incentives for conservative accounting: The influence of legal and political institutions. *Journal of Accounting and Economics*, *42*(1-2), 107-148. http://doi.org/10.1016/j.jacceco.2005.10.005

Caglio, A., Melloni, G., & Perego, P. (2019). Informational content and assurance of textual disclosures: Evidence on integrated reporting. *European Accounting Review*, *29*(1), 55-83. http://doi.org/10.1080/09638180.2019.1677486

Campbell, J. (2006). Institutional analysis and the paradox of corporate social responsibility. *American Behavioural Scientist*, *49*(7), 925-938.

China's Ministry of Finance. (2024, December). *Corporate sustainability disclosure standards – Basic standards (Draft for comment)*. Ministry of Finance of the People's Republic of China.

Chen, S., & Bouvain, P. (2009). Is corporate responsibility converging? A comparison of corporate responsibility reporting in the USA, UK, Australia, and Germany. *Journal of Business Ethics*, *87*, 299-317.

Cieslewicz, J. K. 2014. Relationships between national economic culture, institutions, and accounting: Implications for IFRS. *Critical perspectives on accounting*, 25, 511-528.

Cohen, S., Manes-Rossi, F., Mamakou, X., & Brusca, I. (2022). Financial accounting information presented with infographics: does it improve financial reporting understandability? *Journal of Public Budgeting, Accounting & Financial Management*, *34*(6), 263-295. http://doi.org/10.1108/jpbafm-11-2021-0163

Cortesi, A., & Vena, L. (2019). Disclosure quality under Integrated Reporting: A value relevance approach. *Journal of Cleaner Production*, *220*, 745-755. http://doi.org/10.1016/j.jclepro.2019.02.155

Crane, B. (2018). Revisiting who, when, and why stakeholders matter: Trust and stakeholder connectedness. *Business & Society*, *59*(2), 263-286. http://doi.org/10.1177/0007650318756983

Dainow, J. (1966). The civil law and the common law: Some points of comparison. *The American Journal of Comparative Law, 15*(3), 419-435.

Dayanandan, A., Donker, H., Ivanof, M., & Karahan, G. (2016). IFRS and accounting quality: legal origin, regional, and disclosure impacts. *International Journal of Accounting and Information Management*, *24*(3), 296-316. http://doi.org/10.1108/ijaim-11-2015-0075

de Villiers, C., Hsiao, P.-C. K., & Maroun, W. (2017). Developing a conceptual model of influences around integrated reporting, new insights and directions for future research. *Meditari Accountancy Research*, *25*(4), 450-460. http://doi.org/10.1108/medar-07-2017-0183

Deegan, C. M. (2002). The Legitimising Effect of Social and Environmental Disclosures - A Theoretical Foundation. Accounting, Auditing & Accountability Journal, 15, 282-311. http://doi.org/10.1108/09513570210435852

Dilling, P. F. A., & Caykoylu, S. (2019). Determinants of companies that disclose high-quality integrated reports. *Sustainability*, *11*(13), 3744. http://doi.org/10.3390/su11133744

du Toit, E., & Delport, P. W. J. (2024). The progression of disclosures in the basic materials industry of South Africa. *Corporate Social Responsibility and Environmental Management*, 31(2), 1433–1450.

Dumay, J., Bernardi, C., Guthrie, J., & Demartini, P. (2019). Integrated reporting: A structured literature review. *Accounting Forum*, *40*(3), 166-185. http://doi.org/10.1016/j.accfor.2016.06.001

Eccles, R. G., Krzus, M. P. (2010). Integrated reporting for a sustainable strategy. *Financial Executive*, *26*(2), 28-32.

Eccles, R. G., & Klimenko, S. (2019). The investor revolution. *Harvard Business Review*, 97(3), 106-116.

Ecim, D., Lang, Y., Cerbone, D., Kok, M., Maroun, W., & Van Zijl, W. (2020). Crisis communication initiatives between South African retailers and their stakeholders during COVID-19. *The Retail and Marketing Review*, *16*(3), 30-45.

Ermakova, A., Yulia, F., & Subbota, K. (2023). Assessment of industry specifics impact on the ESG rating among Russian companies. *Journal of Management & Technology*, *23*(1), 348-365. http://doi.org/10.20397/2177-6652/2023.v23i1.2575

EYGM Limited. (2021). *Ernst and Young excellence in integrated reporting 2021*. Ernst and Young. https://integratedreportingsa.org/ircsa/wp-content/uploads/2021/09/ey-2021-excellence-awards-report.pdf

Faisal, F., Napitupulu, M. A., & Chariri, A. (2019). Corporate social and environmental responsibility disclosure in Indonesian companies: Symbolic or substantive? *Social Sciences & Humanities*, *27*(1), 259-277.

Freeman, R. E. (1984). Strategic management: A stakeholder theory. *Journal of Management Studies, 39*(1), 1-21.

Frías-Aceituno, J. V., Rodríguez-Ariza, L., & Garcia-Sánchez, I. M. (2014). Explanatory factors of integrated sustainability and financial reporting. *Business Strategy and the Environment*, *23*(1), 56-72. http://doi.org/10.1002/bse.1765

Frías-Aceituno, J. V., Rodríguez-Ariza, L., & García-Sánchez, I. M. (2013). Is integrated reporting determined by a country's legal system? An exploratory study. *Journal of Cleaner Production*, *44*, 45-55. http://doi.org/10.1016/j.jclepro.2012.12.006

Garcia, A. S., Mendes-Da-Silva, W., & Orsato, R. J. (2017). Sensitive industries produce better ESG performance: Evidence from emerging markets. *Journal of Cleaner Production*, *150*, 135-147. http://doi.org/10.1016/j.jclepro.2017.02.180

García-Sánchez, I.-M., Rodríguez-Ariza, L., & Frías-Aceituno, J.-V. (2013). The cultural system and integrated reporting. *International Business Review*, *22*(5), 828-838. http://doi.org/10.1016/j.ibusrev.2013.01.007

Graff, M. (2007). Law and finance: Common law and civil law countries compared—An empirical critique. *Economica*, *75*(297), 60-83. http://doi.org/10.1111/j.1468-0335.2007.00596.x

Gutmayer, T. (2019). *Evaluating business model disclosures in the integrated report*. [Masters of Accountancy thesis]. University of the Witwatersrand.

Haller, A., & van Staden, C. (2014). The value added statement – an appropriate instrument for Integrated Reporting. *Accounting, Auditing & Accountability Journal*, *27*(7), 1190-1216. http://doi.org/10.1108/aaaj-04-2013-1307

Hammond, K., & Miles, S. (2019). Assessing quality assessment of corporate social reporting: UK perspectives. *Accounting Forum*, *28*(1), 61-79.

Hassan, A., Adhikariparajuli, M., Fletcher, M., & Elamer, A. (2019). Integrated Reporting in UK higher education institutions. *Sustainability Accounting, Management and Policy Journal,* 10(5), 844–876.

Huang, S., & Ge, J. (2024). Is there heterogeneity in ESG disclosure by mining companies? A comparison of developed and developing countries. *Environmental Impact Assessment Review*, *104*, 107348.

Hill, C. W. L., & Jones, T. M. (1992). Stakeholder-agency theory. *Journal of Management Studies*, *29*(2), 131-154. http://doi.org/10.1111/j.1467-6486.1992.tb00657.x

Hope, O.-K. (2003). Firm-level disclosures and the relative roles of culture and legal origin. *Journal of International Financial Management & Accounting*, *14*(3), 218-248. http://doi.org/10.1111/1467-646x.00097

Huang, C.-L., & Kung, F.-H. (2010). Drivers of environmental disclosure and stakeholder expectation: Evidence from Taiwan. *Journal of Business Ethics*, *96*(3), 435-451. http://doi.org/10.1007/s10551-010-0476-3

Iatridis, G. E. (2012). Audit quality in common-law and code-law emerging markets: Evidence on earnings conservatism, agency costs and cost of equity. *Emerging Markets Review*, *13*(2), 101-117. http://doi.org/10.1016/j.ememar.2012.01.001

IIRC. (2021). International Integrated Reporting Framework. https://integratedreporting.ifrs.org/wpcontent/uploads/2024/08/IntegratedReporting_Framework_061024.pdf

Injeni, G., Mangena, M., Mathuva, D., & Mudida, R. (2022). Agency and institutional-related factors and the heterogeneity of sustainability and integrated report information disclosures in Kenya. *Journal of Financial Reporting and Accounting*, 20(5), 809-840.

Jaggi, B., & Low, P. Y. (2000). Impact of culture, market forces, and legal system on financial disclosures. *The International Journal of Accounting*, *35*(4), 495-519. http://doi.org/10.1016/S0020-7063(00)00076-5

Järvinen, J., Laine, M., Hyvönen, T., & Kantola, H. (2020). Just look at the numbers: A case study on quantification in corporate environmental disclosures. J*ournal of Business Ethics*, *175*(1), 23-44.

Japan Financial Services Agency (FSA). (2022). *Japan's corporate governance code*. https://www.fsa.go.jp/singi/japan_corporate_governance_forum/09.pdf

Jayasiri, N. K., Kumarasinghe, S., & Pandey, R. (2022). 12 years of integrated reporting: A review of research. *Accounting & Finance*, *63*(2), 2187-2243. http://doi.org/10.1111/acfi.12958

Jennifer Ho, L.-C., & Taylor, M. E. (2007). An empirical analysis of triple bottom-line reporting and its determinants: Evidence from the United States and Japan. *Journal of International Financial Management and Accounting*, *18*(2), 123-150.

Jensen, J. C., & Berg, N. (2012). Determinants of traditional sustainability reporting versus integrated reporting. An institutionalist approach. *Business Strategy and the Environment*, *21*(5), 299-316. http://doi.org/10.1002/bse.740

Keim, G. D. (1978). Corporate social responsibility: An assessment of the enlightened self-interest model. *Academy of Management Review*, *3*(1), 32-39. http://doi.org/10.5465/amr.1978.4296346

Kim, H., Park, K., & Ryu, D. (2015). Corporate environmental responsibility: A legal origins perspective. *Journal of Business Ethics*, *140*(3), 381-402. http://doi.org/10.1007/s10551-015-2641-1

Klerman, D., & Mahoney, P. G. (2007). Legal origin? *Journal of Comparative Economics*, *35*(2), 278-293. http://doi.org/10.1016/j.jce.2007.03.007

Kolk, A. (2004). A decade of sustainability reporting: developments and significance. *International Journal of Environment and Sustainable Development*, *3*(1), 51-64. http://doi.org/10.1504/IJESD.2004.004688

Kolk, A., & Perego, P. (2008). Determinants of the adoption of sustainability assurance statements: an international investigation. *Business Strategy and the Environment*, *19*(3), 182-198. https://doi.org/10.1002/bse.643

KPMG. (2020). *The KPMG survey of sustainability reporting 2020*. KPMG. https://assets.kpmg/content/dam/kpmg/xx/pdf/2020/11/the-time-has-come.pdf

La Porta, R., Lopez-De-Silanes, F., Shleifer, A., & Vishny, R. W. (1997). Legal determinants of external finance. *Journal of Finance*, *52*(3), 1131-1150. http://doi.org/10.1111/j.1540-6261.1997.tb02727.x

La Porta, R., Lopez-De-Silanes, F., Shleifer, A., & Vishny, R. W. (1998). Law and finance. *Journal of Political Economy*, *106*(6), 1113-1155.

La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (2008). The economic consequences of legal origins. *Journal of Economic Literature, 46*(2), 285–332.

Landau, A., Rochell, J., Klein, C., & Zwergel, B. (2020). Integrated reporting of environmental, social, and governance and financial data: Does the market value integrated reports? *Business Strategy and the Environment*, *29*(4), 1750-1763. http://doi.org/10.1002/bse.2467

Lang, M., & Lundholm, R. (1993). Cross-sectional determinants of analyst ratings of corporate disclosures. *Journal of Accounting Research*, *31*(2), 246-271.

Lee, J., Koh, K., & Shim, E. D. (2024). Managerial incentives for ESG in the financial services industry: direct and indirect association between ESG and executive compensation. *Managerial Finance*, *50*(1), 10-27.

Liesen, A., Hoepner, A. G., Patten, D. M., & Figge, F. (2015). Does stakeholder pressure influence corporate GHG emissions reporting? Empirical evidence from Europe. *Accounting, Auditing & Accountability Journal*, *28*(7), 1047-1074. http://doi.org/10.1108/aaaj-12-2013-1547

Lindahl, F., & Schadéwitz, H. (2013). Are legal families related to financial reporting quality? *Abacus, 49*(2), 242-267. http://doi.org/10.1111/abac.12008

Lokuwaduge, C. S., & Heenetigala, K. (2017). Integrating environmental, social and governance (ESG) disclosure for a sustainable development: An Australian study. *Business Strategy and the Environment*, *26*(4), 438-450.

Malola, A., & Maroun, W. (2019). The measurement and potential drivers of integrated report quality: Evidence from a pioneer in integrated reporting. *South African Journal of Accounting Research*, *33*(2), 114-144. http://doi.org/10.1080/10291954.2019.1647937

Manes-Rossi, F., Nicolò, G., Tiron Tudor, A., & Zanellato, G. (2020). Drivers of integrated reporting by state-owned enterprises in Europe: a longitudinal analysis. *Meditari Accountancy Research*, *29*(3), 586-616. http://doi.org/10.1108/medar-07-2019-0532

Maroun, W., & Cerbone, D. (2020). *Corporate governance in South Africa* (2nd ed). Walter de Gruyter GmbH.

Maroun, W., Ecim, D., & Cerbone, D. (2023). Refining integrated thinking. *Sustainability Accounting, Management and Policy Journal*, *14*(7), 1-25. http://doi.org/10.1108/SAMPJ-07-2021-0268

Matten, D., & Moon, J. (2008). 'Implicit' and 'explicit' CSR: A conceptual framework for a comparative understanding of corporate social responsibility. *Academy of Management Review*, *33*(2), 404-424. http://doi.org/10.5465/amr.2008.31193458

McBrayer, G. A. (2018). Does persistence explain ESG disclosure decisions? *Corporate Social Responsibility and Environmental Management*, *25*(6), 1074-1086. http://doi.org/10.1002/csr.1521

McNally, M.-A., Cerbone, D., & Maroun, W. (2017). Exploring the challenges of preparing an integrated report. *Meditari Accountancy Research*, *25*(4), 481-504. http://doi.org/10.1108/MEDAR-10-2016-0085

McNally, M.-A., & Maroun, W. (2018). It is not always bad news. *Accounting, Auditing & Accountability Journal*, *31*(5), 1319-1348. http://doi.org/10.1108/aaaj-05-2016-2577

Meek, G. K., Roberts, C. B., & Gray, S. J. (1995). Factors influencing voluntary annual report disclosures by U.S., U.K. and Continental European multinational corporations. *Journals of International Business Studies*, *26*(3), 555-572.

Moloi, T., & Iredele, O. (2020). Firm value and integrated reporting quality of South African listed firms. *Academy of Strategic Management Journal*, *19*(1), 1-20.

Morsing, M. & Oswald, D. 2009. Sustainable leadership: management control systems and organizational culture in Novo Nordisk A/S. *Corporate Governance: The international journal of business in society*, 9, 83-99.

Muniandy, B., & Ali, M. J. (2012). Development of financial reporting environment in Malaysia. *Research in Accounting Regulation*, *24*(2), 115-125. http://doi.org/10.1016/j.racreg.2012.05.004

Myeza, L., Ecim, D., & Maroun, W. (2023). The role of integrated thinking in corporate governance during the COVID-19 crisis: perspectives from South Africa. *Journal of Public Budgeting, Accounting & Financial Management*, *35*(6), 52-77. http://doi.org/10.1108/JPBAFM-08-2022-0133

Nicolo, G., Ricciardelli, A., Raimo N., and Vitolla, F. (2021). Visual disclosures through integrated reporting. *Management Decisions, 60(4),* 976-994. http://doi.org.10.1108/MD-01-2021-0034

Orbaningsih, D. (2023). Internal and external stakeholders and the social responsibility disclosure of the cement industry in East Java. *Access la Success, 24(192),* 277-284. http://doi.org/10.47750/QAS/24.192.32

Orij, R. (2010). Corporate social disclosures in the context of national cultures and stakeholder theory. *Accounting, Auditing & Accountability Journal*, *23*(7), 868-889. http://doi.org/10.1108/09513571011080162

Peters, J., & Simaens, A. (2020). Integrating sustainability into corporate strategy: A case study of the textile and clothing industry. *Sustainability*, *12*(15), 6125. http://doi.org/10.3390/su12156125

Pistoni, A., Songini, L., & Bavagnoli, F. (2018). Integrated reporting quality: An empirical analysis. *Corporate Social Responsibility and Environmental Management, 25,* 489-507.

Roberts, R. W. (1992). Determinants of corporate social responsibility disclosure: An application of stakeholder theory. *Accounting, Organizations and Society*, *17*(6), 595-612. http://doi.org/10.1016/0361-3682(92)90015-K

Roy, A., & Mukherjee, P. (2022). Does national culture influence corporate ESG disclosures? Evidence from Cross-country study. *Vision, 0.* https://0-doi-org.innopac.wits.ac.za/10.1177/09722629221074914

Sendlhofer, T., & Tolstoy, D. (2022). How employees shape CSR transparency: A sensemaking perspective. *Journal of Business Research*, *150*, 268-278. http://doi.org/10.1016/j.jbusres.2022.05.074

Simnett, R., Vanstraelen, A., & Chua, W. F. (2009). Assurance on sustainability reports - An international comparison. *The Accounting Review*, *84*(3), 937-967. http://doi.org/10.2308/accr.2009.84.3.937

Singhania, M., & Saini, N. (2021). Quantification of ESG regulations: A cross-country benchmarking analysis. *Vision: The Journal of Business Perspective*, *26*(2), 163-171.

Singhania, M., Saini, N., Shri, C., & Bhatia, S. (2024). Cross-country comparative trend analysis in ESG regulatory framework across developed and developing nations. *Management of Environmental Quality: An International Journal*, *35*(1), 61-100.

Smith, J., Haniffa, R., & Fairbrass, J. (2010). A conceptual framework for investigating 'capture' in corporate sustainability reporting assurance. *Journal of Business Ethics*, *99*(3), 425-439. http://doi.org/10.1007/s10551-010-0661-4

Soste, L., Wang, Q. J., Robertson, D., Chaffe, R., Handley, S., & Wei, Y. (2015). Engendering stakeholder ownership in scenario planning. *Technological Forecasting and Social Change*, *91*, 250-263. http://doi.org/10.1016/j.techfore.2014.03.002

Sotorrío, L. L., & Sánchez, J. L. F. (2009). Corporate social reporting for different audiences: the case of multinational corporations in Spain. *Corporate Social Responsibility and Environmental Management*, *17*(5), 272-283. http://doi.org/10.1002/csr.215

Sun, Y. (2024). The real effect of innovation in environmental, social, and governance (ESG) disclosures on ESG performance: An integrated reporting perspective. *Journal of Cleaner Production*, *460*, 1-14.

Tsakumis, G. T. 2007. The influence of culture on accountants' application of financial reporting rules. *Abacus,* 43**,** 27-48.

Ullmann, A. A. (1985). Data in search of a theory: a critical examination of the relationships among social disclosure, and economic performance of US firms. *Academy of Management Review*, *10*(3), 540-557. http://doi.org/10.5465/amr.1985.4278989

van Zijl, W., Wöstmann, C., & Maroun, W. (2017). Strategy disclosures by listed financial services companies: Signalling theory, legitimacy theory and South African integrated reporting practices. *South African Journal of Business Management*, *48*(3), 73-85.

Vaz, N., Fernandez-Feijoo, B., & Ruiz, S. (2016). Integrated reporting: an international overview. *Business Ethics: A European Review*, *25*(4), 577-591. http://doi.org/10.1111/beer.12125

Velte, P. (2021). Archival research on integrated reporting: a systematic review of main drivers and the impact of integrated reporting on firm value. *Journal of Management and Governance*, *26*(3), 997-1061. http://doi.org/10.1007/s10997-021-09582-w

Velte, P. (2023). Automated text analyses of sustainability & integrated reporting. A literature review of empirical-quantitative research. *Journal of Global Responsibility*, *14*(4), 530-566.

Vitolla, F., Raimo, N., Rubino, M., & Garzoni, A. (2019). The impact of national culture on integrated reporting quality. A stakeholder theory approach. *Business Strategy and the Environment*, *28*(8), 1558-1571. http://doi.org/10.1002/bse.2332

Watts, R. L., & Zimmerman, J. L. (1978). Towards a positive theory of the determination of accounting standards. *American Accounting Association*, *53*(1), 112-134.

Wicaksono, A. P., & Setiawan, D. (2023). Impacts of stakeholder pressure on water disclosure within Asian mining companies. *Environment, Development and Sustainability*, *26*(3), 6493-6515. http://doi.org/10.1007/s10668-023-02972-0

Wong, K. S., Amran, A., & Chu, E. Y. (2022). Institutional antecedents of integrated reporting quality: The moderating role of board independence. *Corporate Social Responsibility and Environmental Management*, *30*(2), 621-640. http://doi.org/10.1002/csr.2378

Yang, Y., Yang, F., & Zhao, X. (2022). The impact of the quality of environmental information disclosure on financial performance: the moderating effect of internal and external stakeholders. *Environmental Science and Pollution Research*, *29*(45), 68796-68814. http://doi.org/10.1007/s11356-022-20553-y

Zattoni, A. (2011). Who should control a corporation? Toward a contingency stakeholder model for allocating ownership rights. *Journal of Business Ethics*, *103*(2), 255-274. http://doi.org/10.1007/s10551-011-0864-3

Appendix A: Data Collection Extracts

Figure A1 provides an example of the sentence coding process.

	Content of the information disclosed					Type of info disclosed			Results (I)					Results - II (Comparabiity)		
Presence (1,0)	Context	Commitment / Expectations	Objectives	Actions	Results	Qualitative	Quantitative	Monetary	Good news (positive) result	Bad news (negative) result	Absolute terms	Relative Terms	Comparison	Time	Space	Target

Figure A1: Headings used in the sentence coding process

Figure A2 provides an extract of the coding of Sibanye Stillwaters' visual mediums for purposes of measuring the EoII.

	Circle		Rectangle			Other		Surface Area
Name of Diagram	Diameter (cm)	Radius (cm)	Length (cm)	Breadth (cm)	Shape			
2021 Production	3,1	1,55						7,54767635
2021 Adjusted EBITDA	3,1	1,55						7,54767635
ESG HIGHLIGHTS		0	17,97	4,5				80,865
Reserves and resources		0	17,97	4,55				81,7635
Our reporting footprint	7,47	3,735						43,8259244
Our value creation journey		0	17,58	18,73				329,2734
Board characteristics		0	8,47	15,55				131,7085
Board independence (%)	1,97	0,985						3,04805173
Board tenure (years)*	1,97	0,985						3,04805173
Board age (years)	2,11	1,055						3,49667116
Gender diversity (%)	2,11	1,055						3,49667116
Independent Non-executive Directors		0	17,97	23,57				423,5529
Independent Non-executive Directors continued		0	17,97	5,13				92,1861
Executive Directors		0	17,97	3,37				60,5589
Corporate governance framework		0				9,7552	Triangle	9,7552

Figure A2: Extract of the visual mediums coding process

Appendix B: Examples of Visual Mediums

Figures B1 and B2 show two examples of the company's visual mediums.

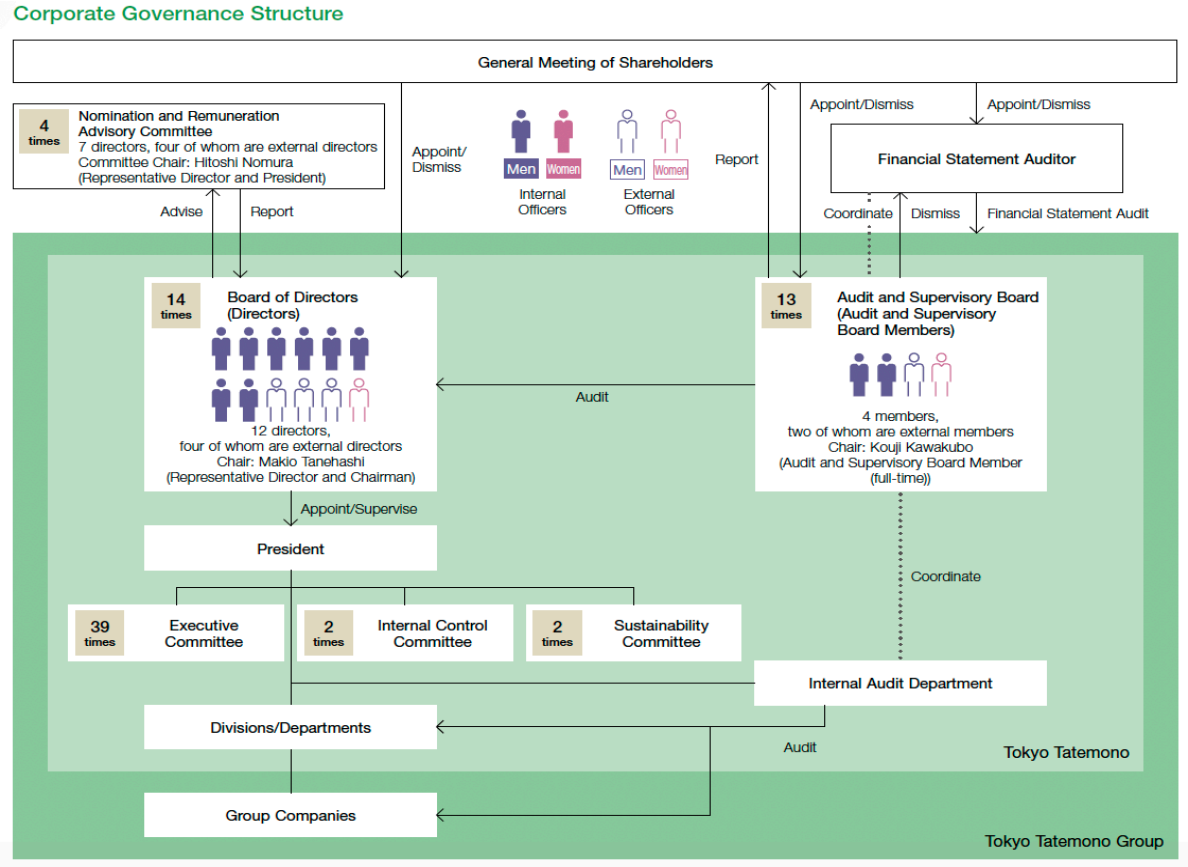


Figure B1: Corporate Governance Structure taken from Tokyo Tatemono Group's 2021 integrated report

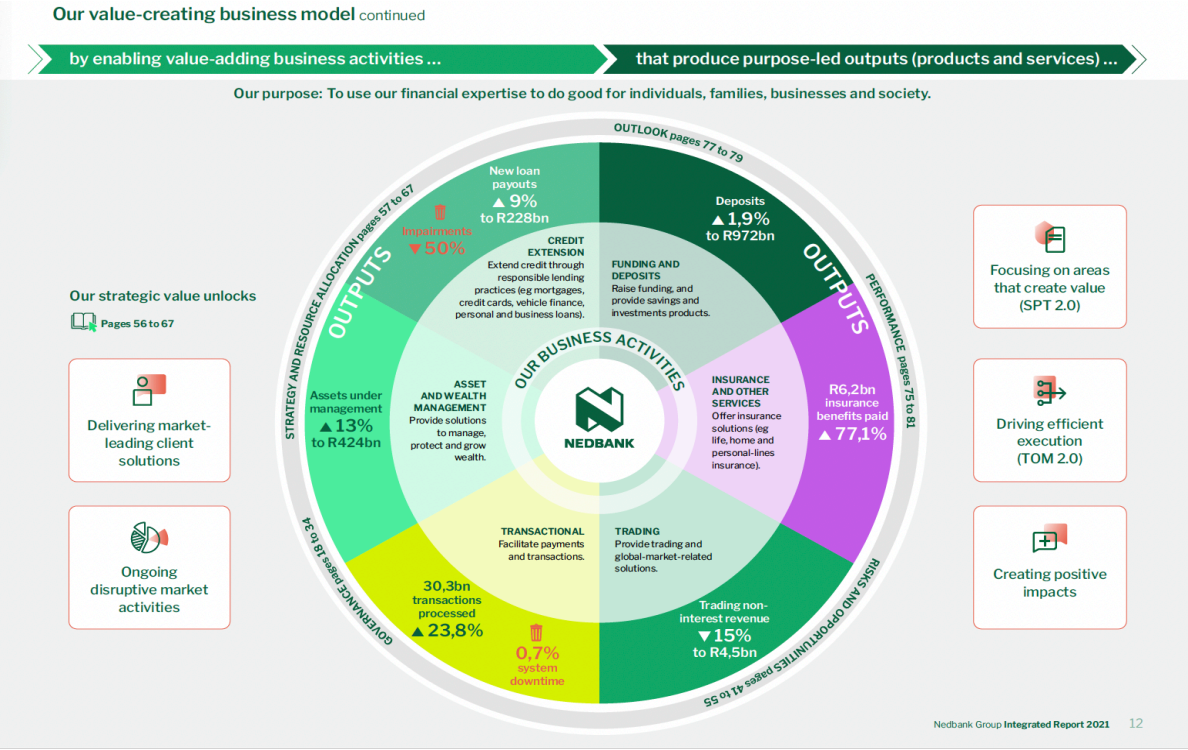


Figure B2: Nedbank Group's value-creating business model from its 2021 integrated report

Appendix C: Shapiro-Wilk Test

Figures C1 to C8 graphically represent the Shapiro-Wilk test. No normality was observed within the independent variables (i.e., the quality indicators).

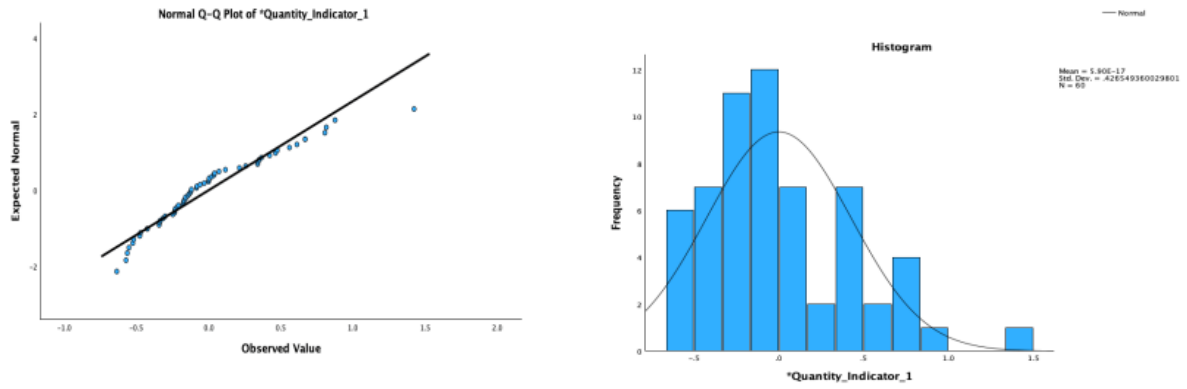


Figure C1: Shapiro-Wilk test result for quantity indicator 1

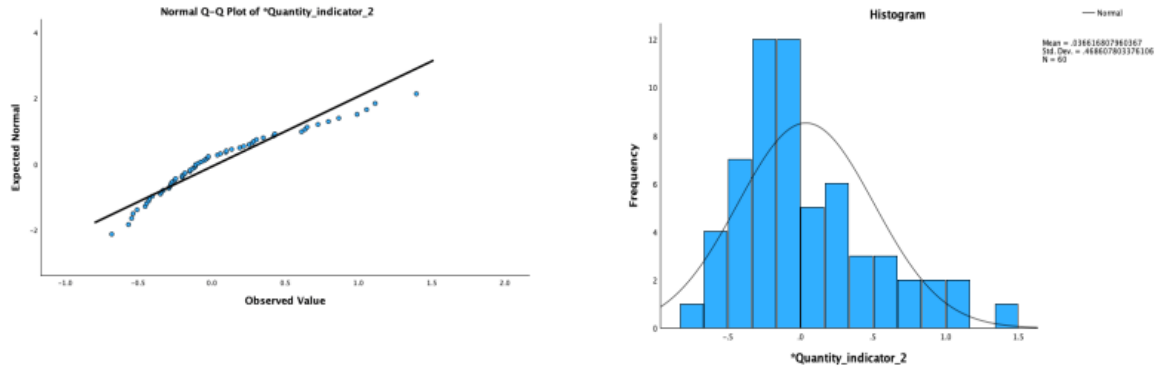


Figure C2: Shapiro-Wilk test result for quantity indicator 2

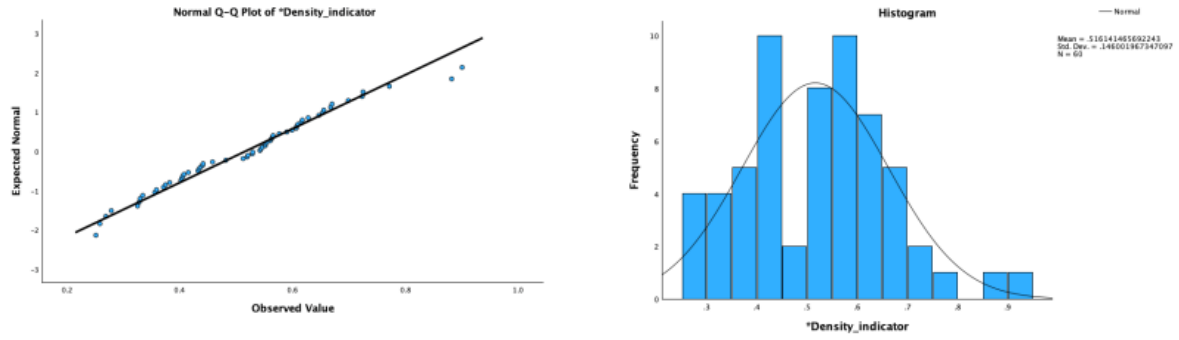


Figure C3: Shapiro-Wilk test result for the density indicator

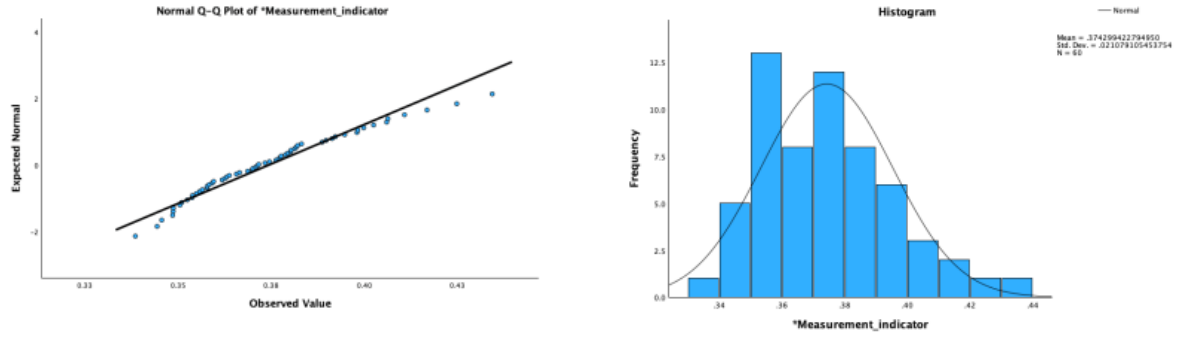


Figure C4: Shapiro-Wilk test result for the measurement indicator

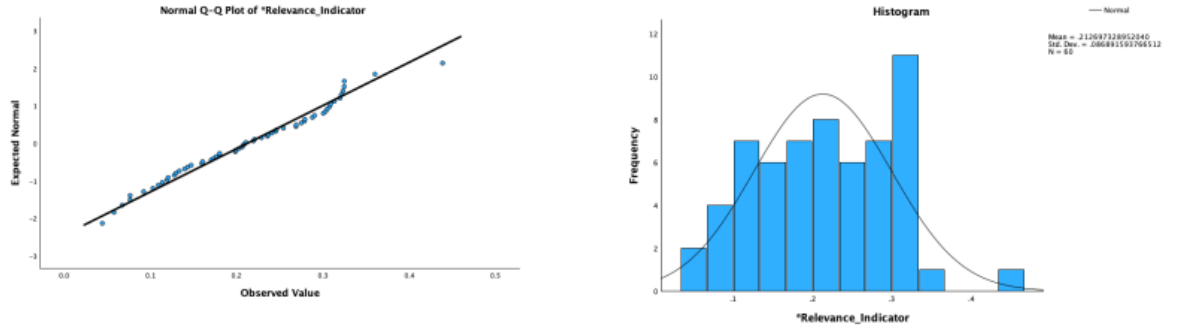


Figure C5: Shapiro-Wilk test result for the relevance indicator

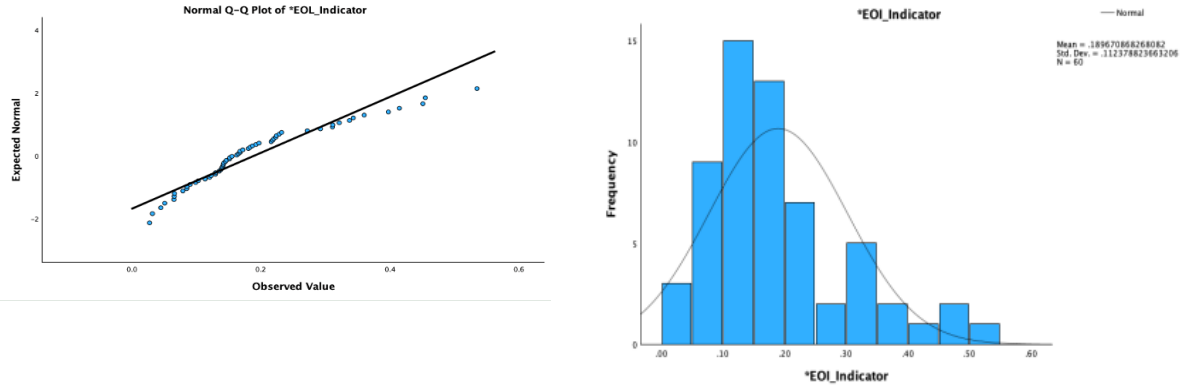


Figure C6: Shapiro-Wilk test result for ease of interpretation (EoI) indicator

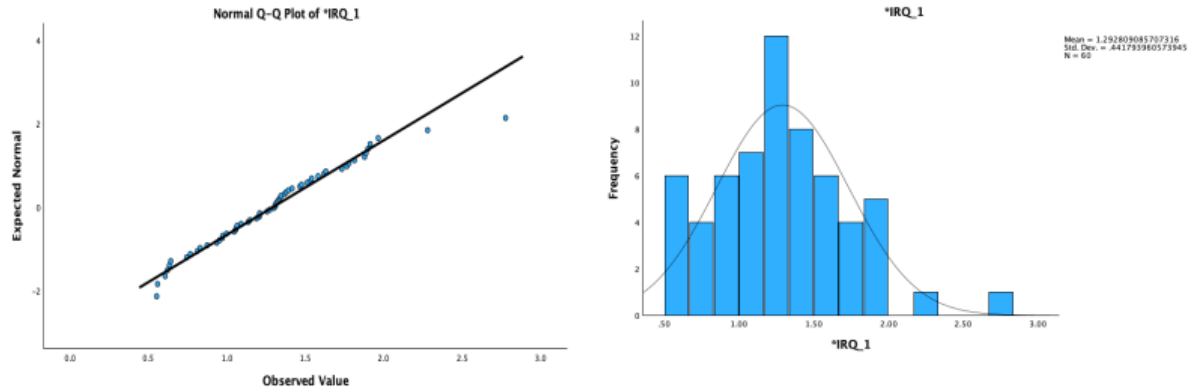


Figure C7: Shapiro-Wilk test result for Integrated Reporting Quality (IRQ) 1

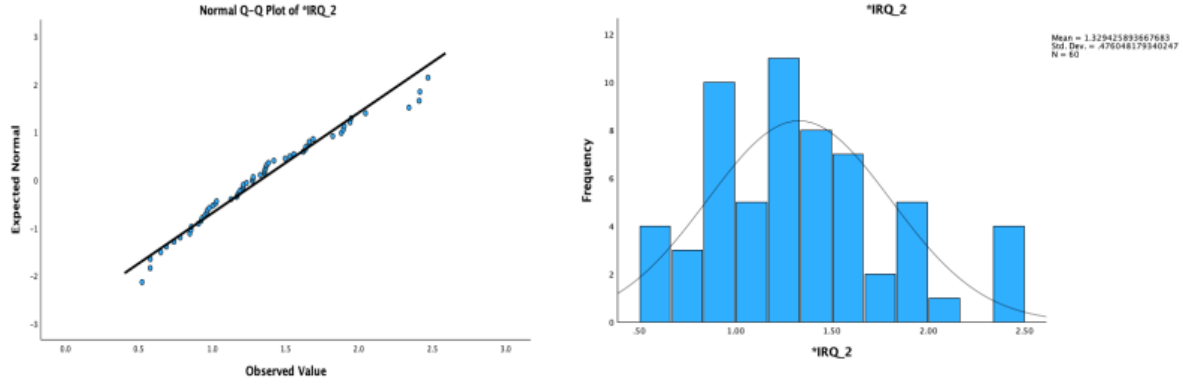


Figure C8: Shapiro-Wilk test result for Integrated Reporting Quality (IRQ) 2