THE POTENTIAL OF INTEGRATED REPORTING TO ENHANCE SUSTAINABILITY REPORTING IN THE PUBLIC SECTOR

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Abstract
This paper examines the influence of integrated reporting (IR) on the sustainability reporting practises of a state-owned enterprise through a content analysis of their reports over the period 2001-2015 supplemented by two interviews with report preparers. The findings show a steady increase in the quantity and quality of sustainability disclosures. In 2012 the organisation chose to adopt the IR framework in order to enhance sustainability reporting for all stakeholders. The IR process resulted in more balanced disclosure of material aspects of sustainability. The paper concludes that whilst IR has the potential to enhance public sector sustainability reporting, there was no consideration of inter-generational equity reporting.

Key words: Sustainability reporting; Social and environmental reporting; Integrated reporting; Public sector sustainability reporting; State-owned enterprises

1 Introduction

Sustainability reporting emerged to deal with stakeholders' social and environmental information needs (Higgins & Larrinaga 2014). Integrated Reporting (IR) is a new form of reporting that brings together financial and non-financial reporting, focusing on future value creation (de Villiers et al. 2014a; de Villiers et al. 2017a; de Villiers et al. 2017b). Organisations are tasked with customising IR (Meyrick 2016) with reference to their strategy, business plan and the applicable capitals among financial, manufactured, intellectual, human, social and relationship, and natural capital (IIRC 2013). The International Integrated Reporting Council (IIRC) promotes IR for all organisations, including the public sector and state-owned enterprises (SOEs); and IR is indeed being adopted in both private and public sectors (Macnab 2015).

The IIRC was formed in 2010 by the Global Reporting Initiative (GRI), the pre-eminent sustainability reporting framework provider, and the Prince of Wales' Accounting for Sustainability Project. However, even though IR stemmed from the sustainability movement, the IR framework, published in 2013, subordinates sustainability to value creation (IIRC 2013). This has been described as a missed opportunity and the end of IR as an influence towards sustainability (Flower 2015; Thomson 2015). However, others feel that IR enhances the visibility of non-financial matters (Broadbent 2016), and opens the way for a change in attitudes towards long-term thinking that could lead to positive social and environmental outcomes (Adams 2015; Guthrie et al. 2017; Reuter & Messner 2015; Tweedie & Martinov-Bennie 2015). Although IR is primarily focused on the providers of financial capital, the IIRC (2013) expects it could benefit other stakeholders by integrating financial and non-financial information (Atkins & Maroun 2015; Atkins et al. 2015; Stent & Dowler 2015).

Despite these diverging opinions, empirical work to support either view has been slow to emerge. Therefore, it is still an empirical question whether IR can enhance sustainability and sustainability reporting. In addition, few empirical studies deal with sustainability reporting in the public sector and specifically in SOEs (Ball et al. 2014), with even fewer studies on IR in the public sector. This is an important gap in the literature given the important role the public sector plays in sustainability, due to its control over a large proportion of the economy (Ball et al. 2014). Therefore, the purpose of this study is to extend the understanding of IR in the public sector by exploring the implementation of IR in New Zealand Post (NZ Post), an SOE responsible for postal services. The organisation is an ideal research site, being one of the few public sector organisations in the IIRC's Pilot Programme. This pilot programme was established to promote the implementation of IR and to provide examples for other organisations to follow. The research question is: How has integrated reporting influenced the social and environmental (sustainability) disclosures of NZ Post as an example of a SOE?

This study examines the development of NZ Post's sustainability reports from 2001 to 2015, which included the implementation of IR in 2012, through an institutional theory driven analysis of both reports and semi-structured interviews with 2 key integrated report preparers. The findings contribute to the literature on sustainability reporting in the public sector (Goswami & Lodhia 2014; Lodhia et al. 2012), as well as the nascent IR literature, and should be of interest to government regulators, practitioners and public sector researchers.

2 Corporate Social Responsibility, Sustainable Development, and Sustainability Reporting in SOEs

Corporate social responsibility (CSR) refers to businesses' responsibility to act ethically and consider their impacts on the community at large, and does not necessarily encompass sustainability (Lawrence & Weber 2017; Leung & Gray 2016; Rao & Tilt 2016). Sustainability is concerned with preserving resources and operating in a way that is conducive to long-term operations, with sustainable development being defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Brundtland 1987), suggesting the need to consider and manage inter-generational equity. Therefore, sustainability is a more encompassing concept than CSR, and sustainability reporting is the process to account for this broader range of concerns.

CSR and the sustainability reporting literature have traditionally focused on the corporate setting (Guthrie & Abeysekera 2006; Ball et al. 2014; Massa et al. 2015; Pinto et al. 2014), while there has been relatively little research into non-financial disclosures in the public sector (Guthrie & Farneti 2008; del Sordo et al. 2016). Public sector reporting studies have mostly dealt with governmental bodies and local authorities (e.g. Farneti & Guthrie 2009; Bellringer et al. 2011), leaving issues related to SOEs under researched (Roper & Schoenberger-Orgad 2011), especially as far as the nascent field of IR is concerned (Lodhia 2014).

Although part of the public sector, SOEs share several characteristics with private sector businesses, including operating competitively and being driven by the profit motive (Roper & Schoenberger-Orgad 2011). The *OECD Guidelines on Corporate Governance of SOEs* (2005, p. 44) states that SOEs "should be as transparent as publicly traded corporations" and "SOEs should disclose financial and non-financial information". SOEs differ from private sector businesses as they often have a requirement to pursue wide-ranging social and environmental goals on behalf of the State (Allini et al. 2016).

3 Context, research method, and theory

NZ Post is a SOE operating as a commercial entity, providing mail and postal services in New Zealand. New Zealand SOEs are government owned companies that operate as commercial businesses that are required to comply with the Companies Act. The legislation does not require sustainability or IR reporting, only that SOEs should exhibit social responsibility. However, the relevant Treasury manual provides a list of financial and non-financial performance indicators that SOEs should disclose, including how CSR goals, values, and behaviours are incorporated into the fabric of the company, as well as objectives and performance targets reflecting good CSR practice, specific CSR programmes, and the reporting framework used (Treasury Commercial Operations, 2012). Thus, SOEs are required to disclose sustainability information but are given flexibility in how to meet these requirements.

As this research asks a “how” question (Yin 2014) a modified case study approach was considered appropriate to explore the evolution of NZ Post’s sustainability disclosures. Our choice of research methods allowed us to study contemporary issues and longitudinal data. The main research method in this case was a longitudinal content analysis of 15 years of annual reports supplemented by 2 interviews to gain insights into the reasons for change (Martin & Spano 2015) and how IR adoption influenced NZ Post’s reporting practices.

The evolution of sustainability reporting was evidenced through the analysis of the contents of the annual and integrated reports produced in the period 2001-2015. Semi-structured interviews with two key NZ Post report preparers were used to corroborate our analysis and provide further insight into the reasoning behind disclosure decisions. A mixed method approach makes for a strong research design and mitigates concerns around validity (Venter & de Villiers 2013; Yin 2014). Possible concerns around reliability (Yin 2014, p. 45) were minimised by keeping meticulous records during the analysis process and by discussing the important issues in the analyses and findings among co-authors to ensure agreement and that the interpretations of a single individual did not skew the findings.

3.1 Annual Report Analysis Method

Following the prior literature (e.g. Kolk 2004), the analysis of the 15 annual reports and integrated reports (2001-2015) focused on:

1. The reporting framework used in order to enable an assessment of the influence of the framework used on the reporting and on sustainability practices.

2. The key non-financial performance metrics used for example the percentage reduction in energy consumption or amounts invested in community sponsorship activities. The analysis explored the evolution of the metrics in order to assess what was considered important and how this assessment changed over time.
3. The independent assurance of the reports' non-financial data, i.e. whether the non-financial data were subject to assurance, which assurance standards were used, and whether selected metrics were assured for example by the Certified Emissions Management and Reduction Programme.
4. The inclusion of non-financial targets in the Scorecard or Statement of Corporate Intent. The disclosure of targets indicates the perceived importance of these targets and ensures management will manage these targets in future.

These aspects are tabulated by year in the findings section to facilitate a better understanding of the changes in sustainability reporting over time and the role of adopting IR in this evolution.

3.2 Semi-Structured Interviews

An interview guide was used (Farneti & Guthrie 2009; Momin & Parker 2013), which listed the areas to be explored and clarified in the interviews with the key preparers of NZ Post's integrated reports. We interviewed the investor relations manager (AA) and the company's sustainability manager (BB). AA was involved in the transition to IR and its adoption, and was also in charge of managing relationships with a broad range of stakeholders, including the company's shareholder (Government), rating agencies, debt investors, customers and employees. BB also played a key role in IR implementation.

The interview with AA was conducted at the company's headquarters during September 2015, lasting approximately an hour. The interview with BB lasted 34 minutes and was conducted via Skype during October 2015. The interviews were recorded, transcribed and analysed to identify themes to explore how IR adoption influenced sustainability disclosures. The findings are discussed by identified theme. As mentioned above, several strategies were employed to allay concerns around the validity and reliability of the analyses and interpretations. Although reliance on two interviews may be regarded as a limitation, the interviews were conducted with the two key players in the process of adopting IR. In addition, the role of the interviews was largely to clarify and corroborate the insights gained from the extensive data analysis already conducted, where needed.

3.3 Institutional theory

Institutional theory emphasizes the conditioning role of the social context in influencing organisational behaviour (Higgins & Larrinaga 2014). According to this theory, institutions control and restrict organisational behaviour by setting the cultural, legal and moral boundaries within which organisations have to operate to ensure success (Hoffman 1999, Scott 2013). A variety of institutional mechanisms exert pressure on organisations to adopt methods and practices to enhance legitimacy to ensure continued access to resources, including financial resources, employees, and customers (DiMaggio & Powell 1983), and to enhance survival capabilities (Scott 1987).

Isomorphism is when organisations change their rules and structures in response to institutional pressures (Higgins & Larrinaga 2014). DiMaggio and Powell (1983, p.149) describe the concept of isomorphism as “a constraining process that forces one unit in a population to resemble other units that face the same set of environmental conditions”. Isomorphism can be classified into three types: coercive isomorphism (when forced by laws and regulations or pressurised by powerful groups), mimetic isomorphism (when one organisation copies another when facing uncertainty) and normative isomorphism (when the appropriateness of certain methods become taken-for-granted though the professionalization of a field) (DiMaggio & Powell 1983). These forces usually operate simultaneously (Tuttle & Dillard 2007).

Institutional theory provides a framework to assess the changes in accounting technologies and other standardised procedures (Sutheewasinnon et al. 2016) and to understand the motivations of key players (Abeydeera et al. 2016). Therefore, institutional theory can be applied to the field of sustainability reporting to assess changes and explain the underlying reasons. In contrast to legitimacy theory, which sees companies’ engagement in sustainability reporting as the outcome of calculated managerial behaviour, institutional theory suggests that “in the absence of a clear rationale, firms undertake this activity because their peers do so and because it has come to be taken for granted” (Higgins & Larrinaga 2014, p.273).

Given that sustainability reporting for New Zealand SOEs is mainly voluntary in nature, this paper follows de Villiers and Alexander (2014) in using the concept of isomorphism to assist in identifying the institutional pressures faced by NZ Post, and thereby uncovering the motivations that led to changes in their sustainability reporting.

4 Findings

In answering the research question, as to the impact of IR on the evolution of sustainability reporting at NZ Post and its commitment towards sustainable development was explored mainly through content analysis supplemented by two interviews. The discussion is organised into three sub-headings that reflect the themes that emerged from the analyses.

4.1 Evolution of the content of sustainability disclosures

Table 1 shows a summary of the analysis of the company's annual and integrated reports. The table shows that in the period 2001 – 2008 NZ Post did not apply any reporting framework. In the period 2009 – 2012 they followed the GRI G3 guidelines, before switching to the IR framework in 2013. The table also highlights the gradual increase in the type and quality of sustainability disclosures in this period. This pattern is consistent with the evolution of sustainability reporting in New Zealand. Pinto et al. (2014) report an overall increase in the quantity and type of non-financial information disclosed by New Zealand companies, particularly from around 2005, suggesting the possibility of mimetic isomorphism in terms of increasing disclosures.

There appears to be a relationship between developments in reporting practices and the sustainability performance in NZ Post. For example, key measures of non-financial performance, such as employee Lost-Time Injury Frequency Rate (LTIFR), show a positive trend over the 15 year period. Other measures, e.g. relating to environmental performance, were introduced during this period, but demonstrated an increased coverage of topics and convergence to international standards. For example, until 2006 only carbon emissions was reported, while later years saw the introduction of percentage reductions in fuel, energy and paper, and later waste to landfill. With carbon emissions, a self-assessed indicator (of total vehicle CO2 emissions) was initially disclosed, whereas the independently verified "GHG emissions in tonnes of CO2 according to the ISO 14064-1 standard" was introduced in 2015.

Our analysis identified that in the period 2001 – 2015 NZ Post consistently provided social and environmental information in its reports. The interviews revealed that the decision to disclose non-financial information was motivated both by legal requirements and a sense of belonging to the community:

> We take the view that we're part of New Zealand so the non-financial information is equally as important as the financial, and we also have obligations with our shareholder. [AA]

Table 1: The Evolution of Sustainability Reporting at NZ Post

	Annual Report, identified by year-end				
	2001 to 2006	**2007**	**2008**	**2009**	**2010**
Reporting framework used	None	None	None	GRI G3 guidelines	GRI G3 guidelines
Key Indexes to measure non-financial performance	-4 Commitments under the Deed of Understanding -Number of postage-paid Community Post envelopes provided. -Employee LTIFR -Gallup Q12 Employee Engagement Rate -Absolute C02 emissions	-Same as 2006 **ADDED** -% reduction in paper and energy consumption	-Same as 2007 **ADDED** -Greenhouse Gases (GHG) Emissions in tonnes C02 according to the ISO14064-1 Standards **REMOVED** -Absolute C02 emissions	-Same as 2008 **ADDED** -JRA Best Workplaces Benchmark People Engagement Rate **REMOVED** -Gallup Q12 Employee Engagement Rate	-Same as 2009 **ADDED** -% waste to landfill reduction **REMOVED**
External Assurance	None	None	Corporate Responsibility Index assigned by the St. James Ethics Centre (CR Index: SJECentre) (51%)	CR Index: SJECentre (68.1%)	CR Index: SJECentre (87%)
Non-Financial Targets included in the Statement of Corporate Intent	None	None	None	Among others: -25% LTIFR Reduction -12% GHG emissions reduction by 2012 -58% Corporate Responsibility Index score	Among others: -16% LTIFR Reduction -12% GHG emissions reduction by 2012 -70% CRI score

Table 1: The Evolution of Sustainability Reporting at NZ Post (continued)

	Annual Report, identified by year-end				
	2011	**2012**	**2013**	**2014**	**2015**
Reporting framework used	GRI G3.1 guidelines	GRI G3.1 guidelines	IIRC's Draft Framework	IIRC's IR Framework	IIRC's IR Framework
Key Indexes to measure non-financial performance	-Same as 2010 **ADDED** -% reduction in fuel consumption **REMOVED**	-Same as 2011 **ADDED** **REMOVED**	-Same as 2012 **ADDED** -$ Invested in community sponsorship activities -Employee Total Recordable Injury Frequency Rate **REMOVED** -Number of postage-paid Community Post envelopes -% reduction in paper consumption	-Same as 2013 **ADDED** **REMOVED**	-Same as 2014 **ADDED** **REMOVED**
External Assurance	CR Index: SJECentre (92%)	-GRI Level externally assured -16.1% Emissions reduction externally assured	None	Emissions reduction externally assured	Emissions reduction externally assured
Non-Financial Targets included in the Statement of Corporate Intent	Among others: -7.4% LTIFR Reduction -12% GHG emissions reduction by 2012 -80% CRI score -76% People Eng. Rate	Among others: -5.8% LTIFR Reduction -12% GHG emissions reduction by 2012 - outperformed -73% People Eng. Rate	Among others: -5.6% LTIFR Reduction -2,1% yearly GHG emissions reduction -73.9% People Engagement Rate	Among others: -5.6% LTIFR Reduction -2.0% yearly GHG emissions reduction -74.9% People Engagement Rate	Among others: -3.9 Score in LTIFR -1.5% yearly GHG emissions reduction -74.5% People Engagement Rate

According to the two interview respondents, coercive isomorphism, in the form of legal obligations and pressure from powerful institutions, was the initial predominant reason for non-financial reporting. With the implementation of IR in 2013, materiality started to play a crucial role in determining what to include in the report:

> The whole materiality piece is much stronger for all information… It just changes entirely how you report… It hasn't changed some of the key… measures…, but it just changed how that positions vis-à-vis other information and frameworks… [BB]

Thus, IR implementation significantly modified the reporting process, especially in terms of the quantity of information disclosed and the prominence given to each aspect. This change particularly reduced non-financial reporting that included case studies and stories related to topics now considered non-material, in order to achieve IR's required conciseness and focus:

> …now, with the IR framework, we are much more challenged to ensure that what we are including is material, that it's balanced across the different aspects…, and we are not over reporting some aspects versus others… [BB]

In the 2014-2015 integrated report evidence of this newly achieved balance in content can be found in the "Material Matters" section, where a summary is provided of the key matters that will be addresses in the report. NZ Post determined these material matters by analysing the results of surveys administered to 33 internal and external stakeholders, and disclosed them in the report using a "materiality matrix" that show "what our people think will impact the business" along the one axis and "what our stakeholders think will impact our business" along the other axis. The various material matters are then shown as icons in their appropriate position. The placement of the icons indicate the relative importance that internal and external stakeholders placed on each matter. The matrix shows that internal and external stakeholders more or less agree on the importance of these matters. The icons indicate the IR capital(s) related to and affected by each key issue and the remainder of the annual report is structured around the six capitals, with sections dedicated to the company's "Relationships", "Networks", "Expertise", "People", "Environment" and "Finance" (New Zealand Post Group 2015). Each section addresses the issues, previously identified in the matrix, that have a direct impact on that specific capital. Thus, the company ensures that the material issues are all addressed with reference to the relevant IR capital. The integrated report states: "The six capitals provide a holistic view of the range of resources we rely on to run our business and deliver value. Similarly, we create a range of different types of value for our stakeholders such as customer and employee satisfaction... In summary, we are here to create value for our stakeholders, across the six capitals, via our strategy to address the material matters." (New Zealand Post Group 2015, p.40).

The stakeholder engagement materiality assessment processes demonstrate a willingness to be inclusive and suggesting the presence of normative isomorphism, where stakeholder engagement was seen as the ‘right’ thing to do.

Embracing materiality as part of IR was reported as having changed the way the company reported, not necessarily in terms of the specific metrics disclosed, but in terms of the relative prominence given to different types of information. This point was stressed by both the sustainability manager and the investor relations manager.

4.2 Reasons for adopting reporting frameworks

Prior to 2007/2008, the annual reports advanced their Deed of Understanding with Government as the reason for the commitment to sustainability reporting, for example, in the annual report issued in 2005 the Chairman of the organisation stated that: “Our social obligations to the community we serve are outlined in the Deed of Understanding between the Government and New Zealand Post” (New Zealand Post Group 2005, p. 5). This was confirmed by the sustainability manager. Similar to the findings from Thoradeniya et al. (2015) stakeholder pressure appeared to have played a role, as illustrated in the 2006/2007 Annual Report (New Zealand Post Group 2007, p. 32):

> *There is a high expectation* that we will meet the needs of local communities and are part of the fabric of New Zealand. *Our stakeholders expect* that we are ethical, that the health and safety of our employees is a priority…

Thus origins of NZ Post’s sustainability reporting was the result of coercive isomorphism from Government requirements and stakeholder pressure.

The sustainability manager identified 2007/2008 as a turning point in the sustainability reporting approach. Having a heavy carbon footprint, NZ Post identified the need to report on a wider set of indicators, not only because it had to, but because it was “the right thing to do” [BB]. The interview with BB strongly suggests that coercive isomorphism gave way to normative isomorphism, where pressure was replaced by a belief in stakeholders’ right to information.

Our analysis of the annual reports provided evidence of a progressive institutionalisation of sustainability reporting. The 2008 annual report scorecard included some sustainability targets, whereas previously only financial goals were mentioned. In 2009 the GRI guidelines were implemented facilitated by consultants. Seeking the assistance of consultants or professional bodies is an indicator that professionalization is taking place, which is often an indicator of normative isomorphism (de Villiers et al. 2014b).

Although our analysis suggests that there may have been a shift from coercive to normative isomorphism in this case, Tuttle & Dillard (2007) suggest these forces usually operate simultaneously. What does change is the balance of these forces over time. For example, the NZ Treasury require SOEs to produce sustainability reports (Treasury Commercial Operations 2012).

As noted earlier NZ Post did not use a framework to inform their sustainability reporting until 2009.

> …from 2007-2008 we really said we need to start reporting on a number of sustainability indicators… We thought it was important in terms of our stakeholders, that… as an organisation with a… large carbon footprint, …we …report on wider indicators. [BB]

The decision to adopt GRI was motivated by the general acceptance of the GRI framework (Dumay et al. 2010). However, the GRI framework was only used for four years before the adoption of the IR framework. The choice of IR was driven by several factors:

> We wanted to build beyond the GRI… There was… interest to… tell a broader story, because we have [many] stakeholders and we… were [not] servicing them at our best. So [IR] looked appealing. We were invited to join… the Pilot Programme, and that's where it started. [AA]

The above quote suggests that the need to service stakeholders' information needs was an important factor to move from GRI to IR. The adoption of international non-financial reporting frameworks such as the GRI and later the IR can be read as evidence of normative isomorphism, i.e. these frameworks are becoming the accepted norm for sustainability reporting (de Villiers et al. 2014b; de Villiers & Alexander 2014).

4.3 External assurance

A steering group looked after the preparation of the 2014-2015 integrated report. The steering group comprised of our interviewees, the investor relations manager AA and the sustainability manager BB, as well as executives from Kiwi Bank (the banking division of the group), the strategy team and other key areas of the business. The group started their activities almost a year before the expected issue date of the report, commencing with the stakeholder engagement process, including the development of the survey, and other data gathering activities. Later in the process, the group contemplated external assurance. Although this was not implemented in 2015, the independent validation of sustainability information is on the company's agenda, because of the additional credibility that assurance could provide, convincing stakeholders that assertions are truthful and trustworthy:

> The next step would be… assurance…, …getting elements of the report assured externally so you can add that extra credibility to what we are saying… and that has the benefit of really testing the assertions that you make. [AA]

The motivation for assurance suggests coercive and normative forms of isomorphism: coercive because of the idea that stakeholders would find it compelling; and normative, because managers appear to increasingly take-for-granted that reports should be assured.

5 Discussion

Our interpretation of our analysis suggested that IR positively impacted on the balance and content of the sustainability disclosures, leading us to conclude that IR is a useful accounting technology (Broadbent 2016). One of the major changes brought on by IR was the emphasis on materiality. The interviewees suggest that all material social and environmental matters are now reported with new content introduced and other content either dropped or scaled down. The 2015 integrated report is now considered to be concise in line with the IR framework (Tweedie & Martinov-Bennie 2015). The integrated report shows how material matters connect with the six capitals. Thus IR has improved sustainability reporting.

It is interesting to note that the reason given for choosing GRI and later IR, was to improve sustainability reporting by serving stakeholders' needs. Therefore, in contrast to criticisms of IR's sustainability credentials (Flower 2015), in this case IR enhanced sustainability reporting (Macnab 2015). NZ Post is also considering external assurance of future IRs, which has the potential to further enhance their sustainability reporting as the assurance processes may require NZ Post to develop more robust processes of sustainability data collection and validation (Farooq & de Villiers 2017). Currently the organisation states that to measure sustainability it does so trough IR, benchmarking their sustainability performance against industry best practice and applying the Enviro-Mark Solutions programme which assesses its performance against agreed standards, legislative compliance, internal processes and continuous improvement practices (NZ Post 2017).

Therefore, based on the evidence in this case, the customisation of IR (Meyrick, 2016) has the potential to enhance sustainability reporting. However, it should be noted that NZ Post was already positively predisposed towards sustainability and had volunteered to participate in the IR pilot programme. This may not be the case in other organisations, but we argue that the benefits of making visible previously unreported social and environmental matters, and concise reporting of material issues in a more balanced way, may persuade even 'reluctant' organisations to develop their sustainability reporting practises. However, Adams (2015) cautions that IR must be accompanied by integrated thinking if there are to be substantive changes in organisational performance.

It is also worth considering how improved sustainability reporting may lead to improved sustainability performance. Prior studies suggest that enhanced reporting could result in coercive pressure from stakeholders demanding evidence of the adherence to earlier promises, questioning the non-improvement in reported metrics, and challenging the report's contents (de Villiers & Alexander 2014). In the case of NZ Post the reported metrics indicated almost universal improvement in the period 2001-2015. However, these metrics did not cover all aspects of sustainability performance. Whilst there remains the possibility that changes in sustainability reporting practices may lead to enhanced sustainability performance in public sector organisations, our research design does not allow us to establish any strong causal connection between the adoption of IR and sustainability performance.

In relation to a central pillar of sustainability, inter-generational equity, there was no evidence that IR promoted the consideration of inter-generational equity in NZ Post. Inter-generational equity could form part of NZ Post's human and social and relational capitals, yet there were no disclosures relating to inter-generational equity, nor did this topic emerge during the interviews. IR's focus on value creation for the providers of financial capital coupled with the materiality requirement may well predicate against the issue of inter-generational equity being actively managed or disclosed. Even though the latest integrated report provides some evidence of long term thinking in statements that relate to future orientation, growth, value creation plans, service and stakeholder relations (New Zealand Post Group 2015), the lack of consideration of inter-generational equity suggests that NZ Post may not yet have fully developed sustainability long term thinking (Guthrie et al. 2017; Reuter & Messner 2015; Tweedie & Martinov-Bennie 2015).

6 Summary and conclusion

The aim of this paper was to examine how IR adoption influenced sustainability reporting in the case of NZ Post and to assess the potential of integrated reporting to enhance sustainability reporting, improving the transparency and accountability of the public sector in order to support a move towards sustainability (Adams 2015; Belal & Owen, 2015; Ferry & Eckersley 2016; Manes Rossi & Cohen 2017). The paper was inspired by the call for case study based research by Hopwood (2009), and contributes to the sustainability reporting and IR literature by providing evidence from the experience of one SOE. The overall contribution of this study was to extend the knowledge of the adaptation of IR in the public sector, specifically in SOEs and to inform other public sector organisations, governments, regulators and researchers interested in promoting sustainability through non-financial reporting. Our analysis revealed that initially coercive, then a combination of coercive, normative, and mimetic isomorphism motivated the disclosure of more sustainability information during the 15 years period analysed. However, this information did not cover all aspects of sustainability, in particular inter-generational equity. The adoption of IR was, in this case, largely driven by normative isomorphism.

The adoption of IR in 2013 led to more concise sustainability reports and a reassessment of the relevance and materiality of the content of NZ Post's sustainability reports. Several previously ignored sustainability matters are now reported, and the representation of those that were already accounted for in previous reports has improved. To mention one example, starting with the 2013-2014 annual report, the company's emissions reduction are externally assured by the CEMARS programme and this is reported, contributing to the natural capital section of the report. Whereas the prior literature was divided and speculated whether IR could enhance sustainability reporting (Adams 2015; Broadbent 2016) or harm sustainability reporting (Flower 2015), this study provides evidence that IR enhanced sustainability reporting at NZ Post.

Sustainability matters are now disclosed in a more balanced way because of materiality assessments and stakeholder engagements. Sustainability disclosures are also organised into the six IR capitals, as previously discussed in the findings (section 4.1). In order to further enhance the credibility of their IR NZ Post plans to appoint a third party assurance provider to assure future IRs. The assurance process is expected to further enhance sustainability reporting, as assurance providers are known to recommend better disclosure practices (Reuter & Messner 2015).

This study is subject to the usual limitations associated with single case investigations, such as a lack of generalisability (Yin 2014). This paper contributes by providing evidence that allows some clarification of previously contested theory, namely the contentious matter of whether IR has the potential to enhance sustainability reporting or whether IR will lead to worse sustainability reporting. Even if cautiously assessed, the findings show that sustainability reporting was enhanced by the adoption of IR at NZ Post and suggest that IR can enhance sustainability reporting in SOEs and the public sector in general. However, the question as to whether IR provides a comprehensive framework for reporting on all aspects of sustainability, e.g. inter-generational equity remains a subject for further research.

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