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INTEGRATED REPORTING AND FINANCIAL PERFORMANCE OF SOUTH AFRICAN LISTED BANKS

Abstract

The recent development of integrated reporting intends to address the limitations associated with corporate reporting practices. This paper aims to examine whether a statistically significant relationship exists between integrated reporting quality and financial performance. Secondary data was used, namely the integrated reports and annual financial statements of South African banks listed on the Johannesburg Stock Exchange (JSE) for 2010–2014. For the period 2005–2009, only the financial statements were used, since integrated reporting was not yet mandatory. The research design was longitudinal and it combined qualitative and quantitative methods. Descriptive statistics and Feasible Generalized Least Square (FGLS) were used to explore the relationships between financial performance and integrated reporting quality. The results indicate that there is a positive relationship between integrated reporting quality (IRQ) and earnings per share (EPS). However, there is no significant relationship between IRQ and Tobin's q (Q-Ratio), IRQ and return on equity (ROE), IRQ and return on assets (ROA) as well as IRQ and economic value added (EVA). Moreover, there are no significant differences on the financial performance of the listed banks before and after the introduction of integrated reporting.

INTRODUCTION

Integrated reporting makes both the financial and non-financial information easily accessible to the company stakeholders, whilst it also focuses on the future prospects of the company (Bernardi & Stark, 2018; Cohen et al., 2012). It is "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, 2013).

In the literature, it is claimed that there might be benefits accruing to the companies that have embraced integrated reporting such as lower cost of capital and improved financial performance in general (Baboukardos & Rimmel, 2016; Barth, Cahan, Chen, & Venter, 2017; Zhou, Simnett, & Green, 2017). However, there is limited knowledge on whether such an improvement has occurred because of the mandatory requirements in publishing integrated reports. This is because most studies only looked at the financial performance post the introduction of integrated reporting, largely in jurisdictions where it is not mandatory to issue integrated reports. Whilst studies such as Dube (2018) and Barth et al. (2017) attempted to look at the financial performance also before the introduction of integrated reporting, they only included one year which cannot provide a comprehensive view

and a clear picture of the performance prior to the introduction of integrated reporting. The current study aims to bridge this gap by looking at the financial performance at least five years before (pre) and after (post) the introduction of integrated reporting in a mandatory setting. Both accounting based and market value based measures were correlated to the integrated reporting scores of the reporting entities.

By developing integrated reporting quality disclosure index or a checklist that measures the quality of the integrated reporting, it is possible to measure the integrated reporting quality objectively. This is different from the studies in the literature, which suffer from the following flaws. Firstly, they either used third party assessments of integrated reporting (Buitendag, Fortuin, & De Laan, 2017; Du Toit, 2017). Secondly, they merely assessed the companies' performance without using the mandatory introduction of integrated reporting as an exogenous shock to the company's financial performance (Baboukardos & Rimmel, 2016). Lastly, they assess the quality of the integrated reporting without relating such quality to the actual performance (Pistoni, Songini, & Bavagnoli, 2018).

1. LITERATURE

1.1. Overview

There is a growing body of extant literature on reporting frameworks such as corporate social reporting (CSR), environmental, social and governance (ESG) (Dhaliwal, Li, Tsang, & Yang, 2014). These are the frameworks that predated integrated reporting. Research on integrated reporting is sparse and more empirical work is still needed for understanding its implementation and its utility to stakeholders (Watson, 2015). In this review, the focus is on the literature related to the benefits of integrated reporting and the impact on organizational performance.

The theoretical framework underpinning this study is legitimacy theory, which posits that an organization always aspires to function within the norms and the ethos of the societies within which they operate (Pfeffer & Salancik, 1978). Because integrated reporting has become mandatory to all the JSE listed companies in South Africa, such companies would aspire to abide by their listing requirements to publish the integrated reports, which in turn should assist the stakeholder to assess the financial performance of the company and evaluate their future prospects better.

1.2. Studies on integrated reporting

Limited research conducted around integrated reporting focused on the consequences of integrated reporting in different settings (Barth et al., 2017; Bernardi & Stark, 2018; Lee & Yeo, 2016; Serafeim, 2015; Zhou et al., 2017), overview and background of integrated reporting (De Villiers, Rinaldi, & Unerman, 2014; Dumay, Bernardi, Guthrie, & Demartini, 2016; Marx & Mohammadali-Haji, 2014).

The studies that looked at the consequences of integrated reporting investigated the following. Firstly, the relationship between the level of alignment of integrated reporting to the international integrated reporting framework and the level of accuracy in analytical forecasts. Secondly, the relationship between the integrated reporting quality and the kind of investors associated with such companies (whether short-term or long-term investors). Lately other studies have also begun to look at the relationship between integrated reporting and financial performance measures such as Tobin's q and share performance. This latter group includes Barth, Cahan, Chen, and Venter (2016) and Dube (2018).

Other studies also attempted to look at the pre and post integrated reporting era. However, one of the shortcomings of such studies is that the quality of the integrated reports was not taken into account. Instead, only the performance metrics before and after the integrated reporting became mandatory at the JSE listed companies. For example, Baboukardos and Rimmel (2016) only looked at the earnings valuation and net assets of the JSE listed companies before and after the introduction of integrated reporting without correlating those metrics to the quality of integrated reports of the underlying companies. Most of the previous studies used different measures of performance such

as Net assets value (NAV), earnings based valuation (Baboukardos & Rimmel, 2016), stock liquidity, Q-ratio, cash flow, cost of capital (Barth et al., 2016; Lee & Yeo, 2016; Zhou et al., 2017) and on the whole they found a positive relationship between integrated reporting and firm performance. However, when looking at the individual metrics, the results are mixed. For example, Baboukardos and Rimmel (2016) found that the integrated reporting resulted in decline in value relevance of net assets, whilst there was an increase with regard to earnings valuation coefficients.

The aforesaid studies mostly used quantitative methodology and secondary data from third party sources such as Ernest and Young annual integrated reporting rankings. Some even used the Bloomberg environmental, social and governance (ESG) scores as a proxy for integrated reporting. The problem with such approaches is that the researchers in question do not evaluate the integrated reports objectively, but rely on the rankings provided by others. In the current study, the authors developed a checklist through which the actual integrated reports were graded based on the International Integrated Reporting Framework's content elements.

Although integrated report has become a global phenomenon, it is not isomorphic across countries. Heterogeneity in political, economic, social and environmental climate in different countries causes reporting to differ from country to country (Elzahar, Hussainey, Mazzi, & Tsalavoutas, 2015; Iannou & Serafeim, 2014). In addition to country level differences, there is some research to suggest that sectorial differences may also affect the nature of integrated reporting. Industry dynamics are different from one sector to the other (Haji & Anifowose, 2017). For example, natural and manufacturing capital would be more important in mining sector, whilst in the banking sector, financial and intellectual capital might be more important. This is why, when investigating subjects such as integrated reporting, it is important to go down to the sector level and not focus only on generic assessments. As opposed to prior studies that assessed the integrated reporting based on market capitalization and lumping companies from different sectors together, the current study focuses on banking sector.

South Africa is a special case when it comes to integrated reporting. First of all, the country is regarded as a leader and a pioneer when it comes to corporate governance and reporting (De Villiers, Venter, & Hsiao, 2017; Steyn, 2014). It is the only country in the world that has mandated the integrated reporting for the public listed companies (Barth et al., 2016; De Villiers et al., 2014; Eccles, Krzus, & Ribot, 2015; Serafeim, 2015). Be that as it may, the research in integrated reporting from South African perspective is lower compared to the countries such as those in the global North (Dumay et al., 2016).

Whilst some South African studies such as Marx and Mohammadali-Haji (2014), Haji and Anifowose (2016) looked at the companies listed on JSE based on market capitalization, few have looked at the integrated reporting at a sector level. In fact, to the authors' knowledge, the only sector specific study is that of Carels, Maroun, and Padia (2013) who investigated how the developments in corporate governance have impacted the environmental, social and governance disclosures in integrated reports of South African mining companies. Within the banking sector, the authors are not aware of any study in South African context that investigated the relationship between the quality of integrated reporting and financial performance. Studies that focused on banking sector have been conducted in other jurisdictions dealing with other reporting frameworks such CSR (Alqallaf & Alareeni, 2018; Krasodomska, 2015). Although Smit and Zyl (2016)'s units of analysis were the South African listed banks, the objective was different. They investigated the level of compliance to the Global Reporting Guidelines with regards to the executive compensation.

Financial services sector in general and banking in particular, is an important sector because what happened in the global financial crisis in 2008–2009 emanated from this sector as a result of too much risk being taken within very little transparency and reporting climate (Cerasi & Oliviero, 2015). Although South African banking sector was largely insulated from the global financial crisis (Erasmus & Makina, 2014), the sector remains an important player in the economy.

1.3. Hypothesis development

Research has shown that the employees, customers, investors and all the other stakeholders would reward companies that exhibit transparency and accountability by reporting on pertinent financial and non-financial information (Dam & Scholtens, 2015; Eccles, Ioannou, & Serafeim, 2014; Li, Gong, Zhang, & Koh, 2018). Thus, if there is such a reward, good quality integrated reports should translate into better financial performance as measured by ratios such as earnings per share (EPS), return on assets (ROA), return on equity (ROE), economic value added (EVA), and Tobin's q (Q-ratio). In line with this train of thought, the objective of this study is to establish whether a statistically significant relationship exists between the quality of integrated reports of the banks listed on the JSE and their financial performance. Following the literature, the researcher anticipated that a positive relationship would indeed be identified. That is, companies that had incorporated high-quality integrated reporting are expected to display improved financial performance. Therefore, the study hypotheses are as follows:

H1: *Companies that prepare better quality integrated reports experience increased earnings per share.*

H2: *Companies that prepare better quality integrated reports experience increased return on assets.*

H3: *Companies that prepare better quality integrated reports experience increased return on equity.*

H4: *Companies that prepare better quality integrated reports experience an increased Q-ratio.*

H5: *Companies that prepare better quality integrated reports experience increased economic value added.*

2. METHODOLOGY

Non-probability and purposive sampling methods were used where judgment was applied in selecting the sample (Blumberg, Cooper, & Schindler,

2014). The study specifically focused on the banking sector in a developing economy, South Africa. The sample is made up of seven banks that are listed on the Johannesburg Stock Exchange. These banks are Barclays Africa Group LTD (B-Africa), Capitec Bank Holdings LTD (Capitec), Finbond Group LTD (Finbond), Firstrand LTD (Firstrand), Nedbank Group LTD (Nedbank), RMB Holdings LTD (RMB) and Standard Bank Group LTD (Standard Bank). The sample, therefore, comprises a total of 70 observations, 35 for five years prior to the introduction of integrated reporting (2005 to 2009) and 35 for five years subsequent to the introduction of integrated reporting (2010 to 2014). For the period prior to the introduction of integrated reporting, only the financial statements were used to obtain the information on financial performance through IRESS financial database. For the period subsequent to integrated reporting, both the financial information from IRESS financial database and the actual integrated reports from the companies' websites were used for the financial information and integrated reporting scores respectively.

To examine the quality of integrated reports, a checklist was developed based on the content elements of the integrated reporting framework (IIRC, 2013) and following the previous research such as Joubert (2014) and Stent and Dowler (2015). The authors then read and re-read the integrated reports and assessed them based on the checklist. As per the integrated reporting framework, the checklist covers eight topics, namely:

1) organizational overview and external environment;
2) governance;
3) business model;
4) risk and opportunities;
5) strategy and resource allocation;
6) performance;
7) outlook; and
8) basis of preparation and presentation.

The checklist was in turn used to measure the quality of the integrated reports. Thus, a content analysis of integrated reports of the banks was conducted to establish how well they adhere to the integrated reporting framework's content elements. A score to each bank was allocated based

on total of 180 items. The checklist is available on request from the corresponding author. The scores ranged from a low of 16% to a high of 81%.

Thus, out of a total of 180 items, the scores were converted into a percentage and correlated with the financial performance of the bank for five years, 2010 until 2014. Additionally, the financial performance of the banks was analyzed for a period that spanned five years before the listing requirements for issuing an integrated report, 2005 until 2009. In total, the study period was 10 years (2005 until 2014). This approach allowed the researcher to examine the longitudinal effect of the introduction of integrated reporting. To measure financial performance, various performance measures were retrieved from secondary data available from IRESS financial database. These measures include EPS, ROE, ROA, EVA and the Q ratio.

The hypothesis of this study is that financial performance (dependent variable) is positively associated with the integrated reporting quality (independent variable).

The descriptive statistics of the dataset that are reported include means and standard deviations. These statistics profile the longitudinal data and provide the insights about the financial performance as well as integrated reporting quality of the banks over the periods of interest. After that, two assumptions of the regression were evaluated, which are extreme outliers and normality of the data. Cook's distance was used to estimate the influence of the data point when performing regression, as it is one of the most common approaches to detect the outliers (Cook, 1977).

To determine the model specification, four core tests were conducted, namely, tests for poolability, heteroscedasticity, cross-sectional dependence and autocorrelation. Pool test was used to determine the poolability of the data. Meanwhile, Breush-Pagan test was also used to test the presence of heteroscedasticity. The cross-sectional dependence was performed to understand the interaction between cross-sectional units (De Hoyos & Sarafidis, 2006), with the Wooldridge test used to test for autocorrelation in panel data. To test the hypothesis, a Feasible Generalized Least Square (FGLS) was used as it is a preferred estimator compared to Ordinal

Least Square for data with heteroscedasticity (Miller & Startz, 2018). In addition, an independent t-test was used to determine if there were differences in the financial performance of the banks before (2005–2009) and after (2010–2014) the introduction of integrated reporting. The significance of the relationship and the differences was determined at the 95% confidence level ($p < 0.05$) but also reported at higher levels for the model.

3. RESULTS

3.1. Descriptive statistics of the bank performance and integrated reporting quality

3.1.1. Financial performance of the banks

The descriptive statistics presented reports the overall means and standard deviation for the panel data (Table 1). The overall and within statistics are calculated over 70 observations ($N = 70$). The between statistics is calculated over seven banks ($n = 7$), this is done over a ten-year period ($T = 10$) from 2005 to 2014.

The performance of the banks using the EPS varied from –17.8 to 2,127. There was a difference for within and overall together with between. This means that if we were to draw two banks randomly from the data, the difference in performance based on EPS is expected to be different. The results show that B-Africa performed better than most banks over the period except for Nedbank, which was better especially in the later years, 2013 and 2014 (Figure 1). FinBond was one of the worst performers during the period under investigation.

Return on Assets (ROA) and Return on Equity (ROE) were also evaluated as the internal bank performance measures. ROA varied from –53.16 to 13.21. These are generally close, meaning that if we were to draw two banks randomly from the data, the difference in performance based on ROA is expected to not substantially differ. The performance of the banks based on ROA shows minimal difference in the performance between the banks. Despite this, it was noteworthy that Capitec started very low and moved closer to the other banks from 2004 to 2014, and was still lower in compar-
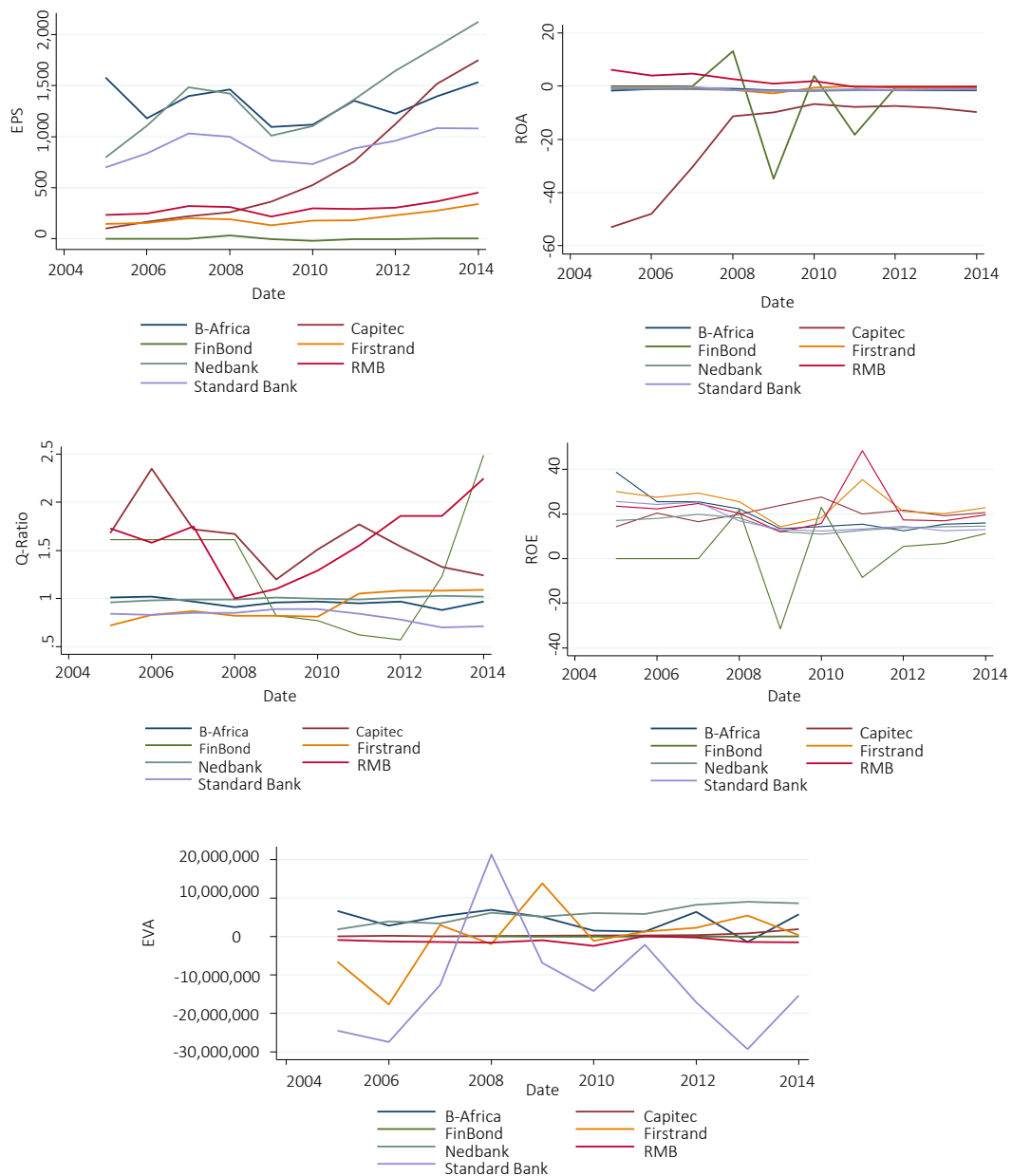
Table 1. Descriptive statistics of the panel data for financial performance of the banks

Variables		Mean	Std. dev.	Min	Max	Observations
EPS	Overall	690.5	582.7	−17.80	2,127	N = 70
	Between	–	551.0	1.93	1,395	n = 7
	Within	–	274.9	92.46	1,763	T = 10
ROA	Overall	−3.63	10.49	−53.16	13.21	N = 70
	Between	–	7.10	−19.28	2.05	n = 7
	Within	–	8.13	−37.50	13.29	T = 10
ROE	Overall	17.46	10.50	−31.47	48.38	N = 70
	Between	–	7.14	2.831	24.50	n = 7
	Within	–	8.11	−16.84	43.73	T = 10
Q-Ratio	Overall	1.1694	0.422	0.570	2.490	N = 70
	Between	–	0.328	0.818	1.601	n = 7
	Within	–	0.291	0.445486	2.365	T = 10
EVA	Overall	−563,209.7	8,556,725	−2.93·10⁷	2.13·10⁷	N = 67
	Between	–	5,976,575	−1.28·10⁷	5,848,004	n = 7
	Within	–	6,384,235	−1.81·10⁷	3.36·10⁷	T-bar = 9.57

Figure 1. Line plots for financial performance of the banks over the period 2004–2014

Table 2. Descriptive statistics of the integrated reporting quality of the banks

Variable		Mean	Std. deviation	Min	Max	Observations
IRQ	Overall	52.38086	20.08987	15.91	80.82	$N = 35$
	Between		19.90691	17.238	71.722	$n = 7$
	Within		7.344355	37.79686	71.20686	$T = 5$

ison with the other banks. Furthermore, FinBond showed the highest variation in performance especially between 2007 to 2012.

The performance of the banks using ROE varied from –31.47 to 48.38. These are generally close, meaning that if we were to draw two banks randomly from the data, the difference in performance based on ROE is expected to not substantially differ. The performance of the banks based on ROE shows that FinBond had a poor performance compared to the other banks throughout the years, while RMB performed better than the other banks from 2010 to 2012, with Firstrand showing a high performance in 2014.

The performance of the banks using the Q-Ratio varied from 0.57 to 2.49. These are generally close, meaning that if we were to draw two banks randomly from the data, the difference in performance based on Q-Ratio is expected to not substantially differ. Despite this, as the variation is not zero this means that there is variation in Q-Ratio over time (SD = 0.291). Figure 1 presents the line plot of the performance of the banks based on Q-Ratio. RMB and Capitec performed better compared to the other banks for the ten-year period, with Nedbank showing very good performance in

the last two years (2013 and 2014).

The performance of the bank was also evaluated using the EVA, and this performance varied from $-2.93 \cdot 10^7$ to $2.13 \cdot 10^7$. The performance of the bank based on EVA shows that Standard Bank had the worst performance and highest variation compared to the other banks. Firstrand showed a very poor performance in the period of 2004 to 2006 then normalized to within the range of the other banks.

3.1.2. Quality of integrated reporting

In addition to the descriptive statistics of the financial performance, the descriptive statistics of the integrated reporting quality (IRQ) is also presented (Table 2). The results show that the mean score for the integrated reporting was 52.38, with a minimum of 15.91 and a maximum of 80.82. The variation in quality of integrated reporting was 19.91 between the banks, while it was 7.344 within the bank over time.

Figure 2 presents the line plots of the integrated reporting quality of the banks over the period of 2010–2014. The results show that Standard Bank had the best score on integrated reporting, while RMB had the worst score across the banks.
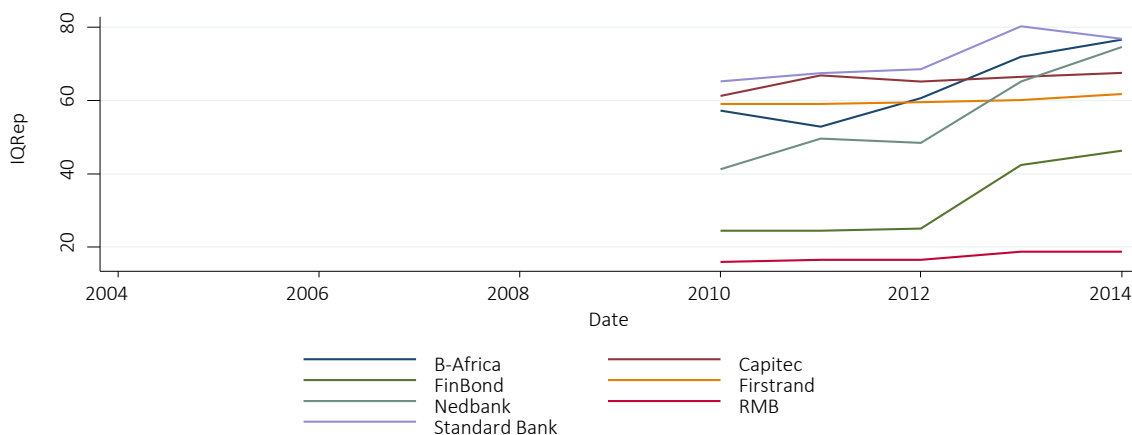
Figure 2. Line plots for integrated reporting quality of the banks over the period 2010–2014

3.2. Influence of integrated reporting quality on banks' performance

3.2.1. Model specification

The evaluation of the extreme outliers was conducted using Cook's D, where the guideline of $Di > 1$ (Cook & Weisberg, 1982) was used and the range for data was $Di = 9.72 \cdot 10^{-7} - 0.617$, meaning that there were no extreme outliers in the dataset. In addition to the extreme outliers and normality, four other core tests were conducted so as to determine the optimum model specification in this study. These were tests for poolability, heteroscedasticity, cross-sectional dependence and autocorrelation.

Pool test was conducted on the dataset and it returned an observed distributed F-statistics, $F(1, 33) = 4.75$, Prob > F = 0.0366. The associated p-value was significant implying that the model parameters, which include its constant and slope vary across the individual banks and therefore the individual effects need to be considered during the model estimation.

Breush-Pagan test was used to test the presence of heteroscedasticity. The results of the Breush-Pagan test shows Chi square Chi2(1) = 0.96 with Prob(chi2) = 0.3271, that for EPS which confirms that the data was homoscedastic. However, for EVA with chi2(1) = 13.82, Prob(chi2) = 0.0002, ROA with chi2(1) = 7.20, Prob(chi2) = 0.0073, the Q-Ratio, the chi2(1) = 6.48 with Prob(chi2) = 0.0109 and for ROE with chi2(1) = 17.51, Prob > chi2 = 0.00000 confirms the presence of heteroscedasticity.

Analysis of cross-sectional dependence indicated that there was no cross-sectional dependence across all the variables. Wooldridge test for autocorrelation in panel data was used to analyze the autocorrelation and for EPS there was presence of autocorrelation (F (1, 6) = 10.920, Prob > F = 0.0163), Q-Ratio (F (1, 6) = 7.004, Prob > F = 0.0382), ROA (F (1, 6) = 10.382, Prob > F = 0.0181. However, there was no autocorrelation for ROE (F (1, 6) = 1.916, Prob (F) = 0.256) and EVA, F (1, 6) = 0.451, Prob > F = 0.5268).

Based on these results, it is evident that although there were no extreme outliers on the data, there were individual effects, which needed to be considered during the model estimation, and there were heteroscedasticity and autocorrelation in the dataset. Heteroscedastic errors such as those found in Q-Ratio and ROE rendered the Ordinary Least Square (OLS) estimators inefficient, as it is likely to induce bias in the standard errors. To overcome this challenge, a different form of estimator is selected, with the common form being Feasible Generalized Least Square (FGLS) if the form of heteroscedasticity is estimated (Miller & Startz, 2018). As such, Feasible Generalized Least Square (FGLS) estimator is the preferred model.

3.2.2. Feasible Generalized Least Square

Feasible Generalized Least Square (FGLS) was used to analyze the panel data to understand whether there was a relationship between the integrated reporting quality and bank's performance using EPS, ROA, ROE, Q-Ratio and EVA. Optimum error structure was used to estimate these relationships.

For EPS model, homoscedasticity and autocorrelation were used. GLS panels(iid) and corr(psar1) were estimated with panels (idd) which specifies homoscedastic error structure, with the model comprising of 35 observations in total and two estimated coefficients. These estimate coefficients are the constant and Integrated Reporting Quality (IRQ). The Wald chi2(1) = 13.56 with Prob(chi2) = 0.0002, which indicates a feasible model as the p-value is smaller than 5% (Table 3). The results show that the IRQ had a $p < 0.0001$, as such it is statistically significant in explaining the performance of the banks using EPS. The associated coefficient has positive magnitude ($\beta = 12.82$) with the t statistics = 3.68, which indicates that IRQ positively influences the EPS of the banks.

The model structure (panels(hetero) corr(psar1)) for ROA was estimated, with panels (hetero) which specify a heteroscedastic error structure with autocorrelation. In this model, the regress or results show that IRQ was not statistical to IRQ. For Q-Ratio, the same model structure was computed. The Wald chi2(1) = 0.10 with Prob(chi2) = 0.749, indicating that model had an associated p-value that was larger than 5%, meaning that the mod-

Table 3. Parameter estimates of the FGLS models

	EPS	ROA	ROE	Q-Ratio	EVA
IRQ	12.82***	−.00004	.0075	−.0006	32,382
	(3.68)	(−0.00)	(0.12)	(−0.32)	(1.33)
_constant	112.16	−1.641	14.53***	1.056***	−1,038,582
	(0.50)	(−1.92)	(3.72)	(8.68)	(−0.99)
N	35	35	35	35	35
Wald chi2(1)	13.56	0.00	0.02	0.10	1.78
Prob > chi2	0.0002	0.9985	0.902	0.749	0.1823

Note: t statistics are in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 4. Descriptive statistics of the banks' performance before and after integrated reporting

	EPS	ROA	ROE	Q-Ratio	EVA
Before	577.5 (523.6)	−5.075 (14.23)	18.07 (11.97)	1.176 (0.4012)	−552,724 (9,535,685)
After	803.4 (623.5)	−2.191 (3.98)	16.85 (8.92)	1.163 (0.447)	−572,796.7 (7,695,573)
Combined	690.5 (582.7)	−3.633 (10.49)	17.46 (10.498)	1.169 (0.422)	−563,209.7 (8,556,725)
N	70	70	70	70	67
t	−1.642	−1.153	0.482	0.129	0.010
df	68	68	63	68	65
Pr (/T/ > /t/)	0.1053	0.2528	0.631	0.8975	0.9924

Note: Standard deviation is in parentheses.

el did not fit well. There was no statistical significant relationship between IRQ and the Q-Ratio, $\beta = -0006$, $p > 0.05$.

The model for ROE was computed using the GLS model, which specifies a heteroscedastic error structure with no cross-sectional correlation from the data with a total of 35 observations, and two estimated coefficients. The model did not fit well (chi2(1) = 0.02 with Prob(chi2) = 0.902 with non-significant IRQ estimate ($\beta = -0.0075$). This means that there was no statistical significant relationship between IRQ and bank performance using ROE. For EVA, the same structure was used as there were similar characteristics with ROE (GLS model). The results indicate that the GLS model did not fit well (chi2(1) = 1.78 with Prob(chi2) = 0.1823 and there was no significant relationship between IRQ and EVA($\beta = -32,382$; $p > 0.05$).

In summary, the results indicate that there was a positive relationship between IRQ and EPS, while there was no significant relationship between IRQ and Q-Ratio, IRQ and ROE, IRQ and ROA as well as IRQ and EVA over the period under study.

3.3. Difference in banks' performance before and after integrated reporting

Table 4 presents the descriptive statistics of the banks' performance before and after integrated reporting. Means across all five measures of performance show mixed results. There is an improvement of EPS (39.1%) as well as EVA (3.6%) from the five-year period (2005–2009) before IRQ to after IRQ (2010–2014). There was, however, a decrease of 56% for ROA, 6.7% for ROE and 1.1% for Q-Ratio. The results from the independent sample t-test show that there is no statistical difference between EPS before and after IRQ, $t(68) = -1.642$, $p > 0.05$. The same pattern was evident for the other financial measures, with ROA, $t(68) = -1.153$, $p > 0.05$; Q-Ratio, $t(68) = 0.129$, $p > 0.05$, ROE, $t(63) = 0.482$, $p > 0.05$ and EVA, $t(65) = 0.01$, $p > 0.992$. All the measures have high p-values ($p > 0.05$), which were indicative that there was no statistically significant differences between the financial performance of the banks before (2004–2009) and after (2010–2014) the introduction of integrated reporting.

CONCLUSION

Banks play a pivotal role in the international economy. Improved integrated reporting quality should improve bank financial performance. Given the limited research on the quantitative benefits of integrated reporting, the main objective of this study was to determine whether a statistically significant relationship exists between the integrated reporting quality and the company's financial performance.

The findings of this study provide evidence that there was a positive relationship between IRQ and EPS, while there was no significant relationship between IRQ and Q-Ratio, IRQ and ROE, IRQ and ROA as well as IRQ and EVA over the period under review. These findings suggest that South African listed banks have not yet progressed to a long-term view of value creation, but rather adopt a short-term view by focusing more on EPS.

Whilst it is important to increase earnings in the short term as represented by EPS, it is equally important that the banks do not do so at the expense of long-term value maximization and ignoring to improve on measures such as EVA, Q-ratio and ROE. Corporate scandals such as Enron (Gillan & Martin, 2002; Healy & Palepu, 2003; Stewart, 2002; Tonge, Greer, & Lawton, 2003), global financial crisis which largely originated in the banking sector (Flannery, Kwan, & Nimalendran, 2013) and recently, Steinhoff (Rossouw & Styan, 2019), all emanated from management greed, and obsession in "laser focus" on earnings (EPS). These corporate failures and scandals make it necessary for South African banks and their contemporaries all over the world to be cautious of not overly focusing on earnings and neglecting the more robust measures of performance such as EVA, and Tobin's q.

Integrated reporting makes an entity to be more aware of its value drivers (Eccles et al., 2014), and value maximization involves not only the interests of shareholders in financial terms but the interests of other stakeholders as well (De Villiers & Sharma, 2017). Therefore, future studies could be built on the current study by including non-financial performance measures and in an attempt to establish the extent to which the introduction of integrated reporting has helped the banks to consider value creation broadly and to the benefit of all stakeholders, not only shareholders.

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