

Business Administration and Business Economics**An Examination of the Extent and Relationship between Governance and Financial Disclosures by Public Higher Education Institutions in South Africa****Queen Ntombikayise Ambe¹**

Abstract: Greater proportion of Public Higher Education Institutions (PHEIs) income is derived from government; therefore, public accountability is of immense importance. Conversely, prior literature is inconclusive on the efficiency and effectiveness of PHEIs public accountability systems. This paper examines the extent of and relationship between governance and financial disclosures by the South African PHEIs in terms of 2007, 2014 Department of Higher Education, and Training (DHET) Regulations for Reporting by PHEIs. Secondary data were collected for the period 2012 to 2016 employing exploratory research method using multiple case study in two phases. Firstly, qualitative data collection and analysis using content analysis of the DHET Regulations and 115 annual reports of 23 SA PHEIs. Phase two employed quantitative data analysis of the findings obtain from phase one. The results indicate moderately satisfied and satisfied levels of governance and financial disclosure respectively. It establishes a significant difference of and positive relationship between governance and financial disclosures by SA PHEIs. It recommends a Governance and Financial Disclosure Measurement Checklist, Rating Scale and Index to be used by Council, Management, and Stakeholders to measure the governance and financial disclosure level and DHET to ensure that submitted annual reports meet their requirements to ensure public accountability.

Keywords: Public Accountability; Annual Report and Regulation for Reporting.

JEL Classification: M480

1. Introduction

The Constitution of the Republic of South Africa (Act 108 of 1996) provides the foundation for public accountability and oversight for all spheres of government including PHEIs. However, regardless of such provisions, Munzhedzi (2016) highlights existing inefficiency and ineffectiveness of the PHEIs public accountability systems. Institutions within the public sector are constantly confronted with challenges of ethics, transparency and the implementation of good corporate governance. Conversely, the Higher Education Act (No 101 of 1997)

¹ Director: Contract Management and Management Accounting, Finance Administration University of Limpopo, Private Bag x 1106, Sovenga 0727, Tel.: +2715 268 3650, Corresponding author: queen.ambe@ul.ac.za.

indicates the desirability of PHEIs public accountability, academic freedom and autonomy in relation to the State towards the National Skills Development Strategy (Mthembu, 2009). Sebola (2017), citing Adams (2006), argues autonomy in disguise of accountability with PHEIs governance structure in South Africa. Basnan et al., (2016) developed disclosure requirements (financial and non-financial) for the Malaysian public universities to be used to discharge their public accountability mandate through annual reporting. Previous literature, such as Sebola (2017), Munzhedzi (2016) and Du Toit (2014), indicates a strong relationship on the debate of institutional autonomy and public accountability.

In this vein, the Department of Higher Education and Training (DHET) has issued three Regulations for Reporting by PHEIs to date, in 2003, 2007 and 2014, so as to promote public accountability of PHEIs. Therefore, an important objective of reporting (i.e., governance and financial reporting) in annual reports by PHEIs is that of public accountability as it consists of financial and non-financial performance of PHEIs (Coy & Dixon, 2004). Public accountability further improves the quality of performance by influencing PHEIs to examine their operations critically and also subjects them to critical external views. Honu and Gajevszky (2014) assert that good corporate governance has an essential role in ensuring financial reporting quality. PHEIs are extensively considering the implementation of good corporate governance, which has positive influence on the quality of financial reporting. Much of previous literature demonstrates that governance mechanisms positively and significantly influence the financial information of companies. Klai and Omri (2011) support this view by illustrating that corporate governance affects accounting quality. Prior literature, such as Cao, Myers and Omer (2012), found that strong corporate governance could result in high-quality financial reports. Efficient corporate governance does allow auditors to fulfil their responsibilities, thus resulting in quality financial reporting (Hope, Thomas & Vyas, 2011).

Prior South African literature indicates that the PHEIs' environment has become more demanding over the years, resulting in PHEIs facing many leadership, governance and financial challenges. This in turn has given rise to the need for sound management of these institutions and adherence to sound governance practices, which are becoming increasingly aligned with corporate governance practices followed in the business environment (Barac, Marx & Moloi, 2011). Conversely, the PwC (2014) reported that governance and financial disclosures of PHEIs are in line with DHET Regulation but lack consistency with varying levels of disclosure maturity. PwC (2014) further recommended the need for a Disclosure Measurement Index to assess the quality of SA PHEIs governance and financial disclosures.

Given the above background, the main objective of the paper is to investigate the extent of and relationship between governance and financial disclosures by the South

African PHEIs as a vehicle for public accountability. Accordingly, the following questions give effect to the research objective:

What is the extent of governance and financial disclosures by SA PHEIs?

What is the relationship between governance and financial disclosures by the South African PHEIs?

Based on the research question two, the following hypothesis was tested:

There is no relationship between governance and financial disclosures by the South African PHEIs.

The next section of the paper discusses the theoretical framework followed by section three on research methodology employed in this paper. The results obtained in the study are presented and analysed in section four, and section five is devoted to discussing the results. Finally, section six concludes the paper and makes recommendations for improved policy and decision making.

2. Theoretical Framework

Corporate governance has an essential role in ensuring financial reporting quality. The relationship between corporate governance and financial reporting quality has been extensively considered. Prior literatures demonstrate that, governance mechanisms positively and significantly influence the financial information of companies (Honu & Gajevszky, 2014). An important aspect of corporate governance is internal controls and it lowers information risk and enhances the completeness and accuracy of planned information. Strong internal control results in the production of reliable financial reporting (Elbannan, 2009). The stronger the corporate governance regime, the stronger the internal controls and thus higher quality financial reporting is achieved. Effective corporate governance will pave way for effective internal reporting system, as financial reporting at the end of the year is a function of in-year internal reporting. To this regard, internal reporting systems check whether financial information meets the understandability, relevance, reliability, and comparability criteria to ensure the achievement of economic decisions. Effective and efficient internal reporting further facilitate and enhance operational and management level communication and interaction, which in turn have a positive effect on the quality of reported financial information. Greater internal reporting enhances reliability and encourages the production of high-quality disclosures (Sánchez, Domínguez & Álvarez, 2011).

Previous literature indicate association between the existence of a financial expert on an audit committee and a higher level of financial reporting quality (Krishnan & Visvanathan, 2008). Further to internal control and internal reporting systems discussed above, auditing, which is independent verification, enhances financial

statement usefulness and reliability and is a critical component of corporate governance. The overall financial reporting quality is enhanced with the inclusion of auditing as a variable of corporate governance (Tang, Chen & Lin, 2016). Corporate governance also prescribes Board Audit Committees, which is responsible for the hiring, performance evaluation and compensation of external auditors. The Board Audit Committees also supervise and oversee financial reports and disclosures by ensuring that there are adequate accounting policies and procedures, coupled with good internal control and management. Therefore, an effective corporate governance system will ensure efficient and effective Audit Committees which in turn will usher quality financial reporting as the audit committee is better able to identify and request correction of misstatements in financial information. Furthermore, a good Audit Committee will also deter the manipulation of financial reports by management and therefore positively impact financial reporting quality and audit inputs. Eyenubo, Mohammed and Ali (2017) assert that the enhancement of financial reporting quality is associated with changes in governance Audit Committees.

A vital component of corporate governance is the creation of board Information Technology (IT) Committee because of the value of accounting information systems in the production of reliable financial reports (Mamić, Sačer & Oluić, 2013). IT supports accounting information as it enabled increased productivity, operations, presentation and delivery of reliable reported financial information. The qualitative characteristics of financial information are enhanced with the adequate use of information technology hence, better financial reporting quality (Mamić et al., 2013). In addition, Klai and Omri (2011, p. 158) reveal that financial information quality and therefore financial disclosure of the Tunisian companies, are positively affected by governance mechanisms.

Prior literature depicts the importance of annual reporting as an approach to public accountability as it provides comprehensive PHEIs financial and non-financial information (Basnan et al., 2016). PHEIs annual reports are a single document that comprehends a wide range of condensed but sufficient and relevant information that allows stakeholders to gather comprehensive understanding of the university's objectives, financial and non-financial performance on a routine basis (Coy, Fischer & Gordon, 2001; Huisman & Currie, 2004). Prior literature, such as Hope et al., (2011) and Honu and Gajevszky (2014), indicates a relationship between governance and financial disclosures, asserting that good corporate governance has an essential role in ensuring financial reporting quality. Good corporate governance has positive influence on the quality of financial reporting. Governance mechanisms positively and significantly influence the financial information of companies. Klai and Omri (2011) illustrate that corporate governance affects accounting quality. Prior literature found that strong corporate governance could result in high-quality financial reports. Efficient corporate governance does allow auditors to fulfil their responsibilities, thus resulting in quality financial reporting (Hope et al., 2011). Furthermore, Tooley

and Hooks (2010); and Basnan et al., (2016) indicate that annual reporting is a tool for internal and external accountability and allows PHEIs to disclose their actions and performance, and be responsible for such actions. And reported information should meet the needs of these stakeholder groups.

Disclosure measurement methods are accepted as flexible to use when extracting the predetermined information in the annual reports (Moloi, 2016). The study used Disclosure Measurement Index as the approach to examine the extent and nature of governance and financial disclosures in the annual reports of PHEIs. Coy and Dixon (2004) indicate a dichotomous or binary method of scoring can be used for disclosure. The binary approach is preferred to the polychotomous or qualitative scale and it is consistent with previous literature (Ismail & Abu Bakar, 2011). The unweighted approach assumes equal importance for scoring all disclosure items (Ismail & Abu Bakar, 2011). Hassan and Marston (2010) used disclosure measurement instruments and found that, while various proprietary checklists exist that permit researchers to use this as a base, many researchers still choose to construct their own checklists to meet the needs of their own research. It was further observed that, due to the labour-intensive data collection process, self-constructed disclosure index studies generally employ small samples (Moloi, 2016). The governance and financial disclosure measurement instruments for this study benefited from prior literature explained above.

3. Methodology

The study employed an exploratory research method in two phases based on secondary data using a multiple case study of SA PHEIs supported by prior literature such as De Silva and Armstrong (2014); Filatotchev, Jackson and Nakajima (2013); Magalhães et al., (2011); and Barac et al., (2011). Phase one of qualitative data collection and analysis used content analysis of the 2007 and 2014 Regulation for Reporting by PHEIs and annual reports of 23 SA PHEIs for the period 2012 to 2016. Conversely, phase two consists of quantitative data analysis of the qualitative findings obtained from phase one (Samson & Tarila, 2014).

3.1. Phase One: Qualitative Data Collection and Analysis

Table 1 below indicates the four major outcomes of phase one consisting of the following: Stage 1 on a review and identification of mandatory governance and financial disclosure items in terms of 2007 and 2014 DHET Regulation for Reporting by PHEIs and the development of 2007 and 2014 Governance and Financial Disclosure Checklist, Rating Scale and Index as depicted in stages 2, 3 and 4, respectively.

Table 1. Phase One: Content Analysis process flow

Stage	Description	Detail Description																								
1	2007 and 2014 DHET Regulation for Reporting	Review of the 2007 and 2014 DHET Regulation for Reporting by PHEIs, identification and recording all required governance and financial disclosure items that a PHEIs must disclose in its annual report. The required governance and financial disclosure items were used to develop a 2007 and 2014 Governance and Financial Disclosure Measurement Checklist.																								
2	Governance and Financial Disclosure Checklist	Applied the 2007 Governance and Financial Disclosure Measurement Checklist to evaluate the 2012, 2013 and 2014 annual report of the 23 SA PHEIs. Applied the 2014 Governance and Financial Disclosure Measurement Checklist to evaluate the 2015 and 2016 annual report of the 23 SA PHEIs. Each PHEIs annual report was evaluated against the relevant Governance and Financial Disclosure Measurement Checklist if the required item was fully disclosed, obscurely disclosed or not disclosed (detailed explanation in Error! Reference source not found. below) a number 1 was used to indicate what is applicable. The sum of 1 was used to ensure that all required disclosure items were evaluated in the annual report. The sum of obscurely disclosed items were divided by 2 and the answer added to the sum of full disclosed. The sum of 1 of not disclosed items was weighted to zero as indicated in Error! Reference source not found. below.																								
3	Governance and Financial Disclosure Rating Scale	The total of fully disclosed items were used to develop a Governance Disclosure Rating Scale to measure the level of governance disclosure per PHEIs. The Governance and Financial Disclosure Rating Scale introduced a five Likert Governance and Financial Disclosure Rating Scale as depicted below: <table border="1" data-bbox="571 1317 1230 1491"> <thead> <tr> <th>Code</th> <th>Scale</th> <th>Rating</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Blue</td> <td>5</td> <td>≥ 81</td> <td>Very satisfied</td> </tr> <tr> <td>Green</td> <td>4</td> <td>$\geq 61 \leq 80$</td> <td>Satisfied</td> </tr> <tr> <td>Orange</td> <td>3</td> <td>$\geq 41 \leq 60$</td> <td>moderately satisfied</td> </tr> <tr> <td>Yellow</td> <td>2</td> <td>$\geq 21 \leq 40$</td> <td>not satisfied</td> </tr> <tr> <td>Red</td> <td>1</td> <td>≤ 20</td> <td>Not at all satisfied</td> </tr> </tbody> </table>	Code	Scale	Rating	Description	Blue	5	≥ 81	Very satisfied	Green	4	$\geq 61 \leq 80$	Satisfied	Orange	3	$\geq 41 \leq 60$	moderately satisfied	Yellow	2	$\geq 21 \leq 40$	not satisfied	Red	1	≤ 20	Not at all satisfied
Code	Scale	Rating	Description																							
Blue	5	≥ 81	Very satisfied																							
Green	4	$\geq 61 \leq 80$	Satisfied																							
Orange	3	$\geq 41 \leq 60$	moderately satisfied																							
Yellow	2	$\geq 21 \leq 40$	not satisfied																							
Red	1	≤ 20	Not at all satisfied																							
4	Governance and Financial Disclosure Index	The total of fully disclosed items were also used to develop a Governance and Financial Disclosure Index to serve as a benchmark for a PHEI to compare its level of governance disclosure against its peers. The calculated fully disclosed items per PHEI per annual report were also used to statistically calculate the minimum, mean and maximum governance and financial disclosures for the 23 PHEIs per annum and for 5 years.																								

Source: Developed by the researcher¹

Table 2 below provides explanatory notes used in stage two above for the development of the Governance and Financial Disclosure Checklist for items that are fully disclosed, obscurely disclosed and not disclosed.

Table 2. Explanatory notes on fully disclosed, obscurely disclosed and not disclosed

Category	Explanatory Notes	Scale
Fully disclosed (FD)	Required information is disclosed within the PHEI annual report within the category in a paragraph, a few paragraph, page or more and contains all governance and financial information as required by the Regulation for Reporting	1
Obscurely disclosed (OD)	Disclosure of minimum governance and financial information as required by the Regulation for Reporting within a paragraph or page but not within required category and scantily	0.5
Not disclosed (ND)	Complete non-disclose of the minimum required governance and financial information as per the Regulation for Reporting	0

Source: Adapted from Barac et al., (2011)

Based on Table 2 above, Table 6 presents a summary of the Governance and Financial Disclosure Checklist (GFDC) discussed in step two above. The GFDC found to be acceptable because of its flexibility. Furthermore, it has been argued that, the disclosure checklist approach is appropriate since the paper intends to gain insight into the level of internal PHEIs practices through the governance and financial information disclosed in the annual reports. The GFDC was used to extract governance and financial information disclosed in the annual reports of PHEIs, which are deemed the proxy of current disclosure practices (Basnan et al., 2016; Moloi, 2016). Table 3 below presents a summary of the GFDC used for this study consisting of governance and financial disclosure categories, subcategories and sub-subcategories developed from the DHET 2007 and 2017 Regulation for Reporting by PHEIs.

Table 3. Summary Governance and Financial Disclosure Checklists

No	Summary Disclosure Requirements	FD	OD	ND
GOVERNANCE DISCLOSURE				
1	Report and statement on Governance and reports on operations			
2	Performance Assessment Report			
3	Report of the Chairperson of Council			
4	Council's Statement on Corporate Governance			
4.1	Council			
4.2	Remuneration Committee of Council			
4.3	Finance Committee of Council			
4.4	Tender (Bid) Committee of Council			
4.5	Planning and Resource Committee of Council			
4.6	Council Membership (Nomination) Committee of Council			
4.7	Audit Committee of Council			
4.8	Risk Committee of Council			

4.9	IT (ICT) Governance Committee of Council			
4.10	Statement on Conflict Management			
4.11	Statement on workers and student participation			
4.12	Statement on Code of Ethics			
5	Council's Statement on Sustainability			
6	Senate's Report to the Council			
7	Institutional Forum Report to the Council			
8	Vice Chancellor's report on management/administration			
9	Report on Internal Administrative and Controls			
10	Report on Risk Exposure assessment and the management thereof			
11	Report of the Audit Committee			
12	Report on Transformation			
FINANCIAL DISCLOSURE				
1	Annual Financial Review			
2	Consolidated Annual Financial Statement			
2.1	Council Statement of Responsibility for the Financial Statements			
2.2	Report of the External Auditors to the Council			
2.3	Statement on accounting policies			
2.4	Consolidated Statement of Financial Position			
2.5	Consolidated Statement of Surplus or Deficit			
2.6	Consolidated Statement of Changes in Funds			
2.7	Consolidated Statement of Cash Flow			
2.8	Notes to the Consolidated Annual Financial Statements			
2.8.1	Disclosure of remuneration of Senior Management			
2.8.2	Disclosure of remuneration of Council Members			

Source: Developed by the researcher¹

3.2. Phase Two: Quantitative Data Analysis

Following the qualitative process discussed in Table 1 above, the outcome of step 2 on the results of total fully disclosed items of the 2007 and 2014 Governance and Financial Disclosure Measurement Checklist was used as quantitative data and statistically converted using Logistics Regression Model (Hosmer, Lemeshow & Sturdivant, 2013) with the following description used in the study:

The *null model* -2 Log Likelihood is given by $-2 * \ln(L_0)$ where L_0 is the likelihood of obtaining the observations if the independent variables had no effect on the outcome;

The *full model* -2 Log Likelihood is given by $-2 * \ln(L)$ where L is the likelihood of obtaining the observations with all independent variables incorporated in the model; and

The difference of these two yields a Chi-Squared statistic, which is a measure of how well the independent variables affect the outcome or dependent variable.

If the P-value for the overall Logistics Regression Model fit statistic is less than the conventional 0.05, then there is evidence that, at least, one of the independent variables contributes to the prediction of the outcome.

Phases 1 and 2 indicate that the study employs a combination of both qualitative and quantitative research approach for data analysis, including the interpretation and presentation of findings and results. The combination of both qualitative and quantitative research approach in one study is referred to as mixed-method approach (Teddlie & Tashakkori 2009:7-8; and Creswell & Plano Clark, 2011).

4. Results and Analysis

The governance and financial disclosures were measured using the measurement checklists, rating scales and index from annual reports of 23 universities over a period of five years, namely, 2012 to 2016. Figure 1 below indicates the extent of governance disclosure of 44%, 47%, and 53%, for 2012, 2013 and 2014 respectively based on the 2007 DHET Regulation. Conversely, the extent of governance disclosure of 34% and 40% for 2015 and 2016 based on the 2014 DHET Regulation. From the financial disclosure perspective, a compliance rating of 70%, 74% and 82% is recorded for 2012, 2013 and 2014 respectively, based on the 2007 DHET Regulation. On the other hand, financial disclosure compliance for 2015 and 2016 was 61% and 66% respectively. PHEIs compliance with the DHET Regulation declined as a result of the introduction of the 2014 DHET Regulation.

The combined governance and financial disclosures depicted in Figure 2 below indicates compliance of 48%, 51%, 58%, 36%, and 41% for 2012 to 2016. The compliance with the 2007 DHET Regulation is reported as 52% with 39% for the 2014 DHET Regulation and a combined average of 47% for the five-year period. Given that all PHEIs are funded by DHET and are expected to report based on the DHET Regulation for Reporting by PHEIs. Popova et al., (2013) indicate the average mandatory disclosure index for the five-year period of 91.51% (with minimum 69.31% and maximum 100%), consistent with the disclosure indexes reported by Omar and Simon (2011) in Jordan (with a mean of 83.12%). A comparison of the results in this paper, as documented in Figures 1 and 2, is far below the expectations when compared to prior literature, except for financial disclosure that attempts to be within the minimum criterion but falls short of the norm of 91.5%.

Table 4 below on Governance and Financial Disclosure Rating Scale indicates that no PHEIs governance and financial disclosures was *very satisfied*, 2 PHEIs on *satisfied*, 17 on *moderately satisfied*, 3 on *not satisfied* and 1 PHEI on *not at all satisfied*. The minimum, average and maximum disclosure index depicted in Table 5 below also demonstrates the same trend, with the best results recorded for 2012 of 83% and the worst results recorded for 2015 of 7%.

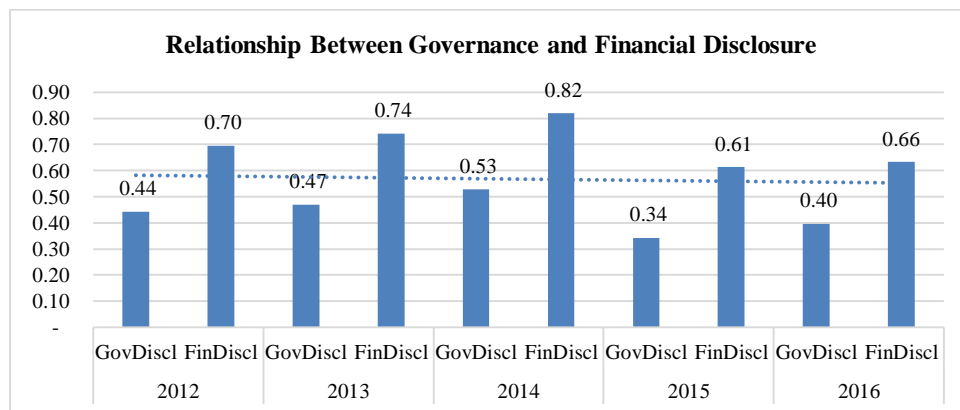


Figure 1. Relationship between Governance and Financial Disclosure

Source: Developed by the researcher¹

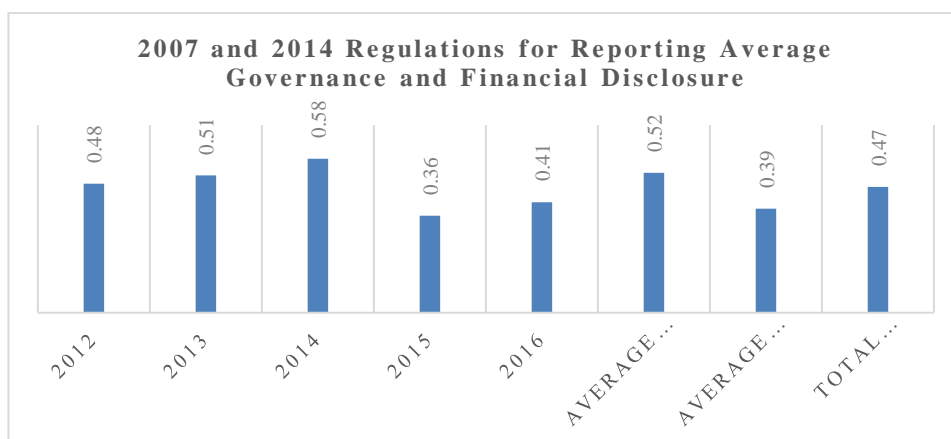


Figure 2. 2007 and 2014 Regulation for Reporting Governance and Financial Disclosures

Source: Developed by the researcher¹

Table 4. PHEIs Governance and Financial Disclosure Rating Scale

Code	Scale	Rating	Description	No Of PHEIs
Blue	5	≥81	Very satisfied	None
Green	4	≥ 61 ≤80	Satisfied	2
Orange	3	≥ 41 ≤60	moderately satisfied	17
Yellow	2	≥ 21 ≤40	not satisfied	3
Red	1	≤20	Not at all satisfied	1

Source: Developed by the researcher¹

Table 5. PHEIs Combined Governance and Financial Disclosure Index

Year	Minimum Index	Average Index	Maximum Index
2012	0.16	0.48	0.83
2013	0.13	0.51	0.77
2014	0.24	0.58	0.82
2015	0.07	0.36	0.64
2016	0.08	0.43	0.62
2012 to 2016	0.19	0.47	0.61

Source: Developed by the researcher¹

The Relationship between Governance and Financial Disclosures

Table 6 below presents a summary of the number reporting items required in the DHET 2014, 2007 and 2003 Regulation for Reporting by PHEIs. It indicates that 15 out of the total 102 disclosure requirements of 2003 Regulation for Reporting; 17 of 106 in the 2007 Regulation for Reporting; and 19 of 249 in the 2014 Regulation for Reporting are Financial Disclosure requirements. This translates to 15%, 16% and 8% of the 2003, 2007 and 2014 Regulations for Reporting, respectively. Both governance and financial reporting items have increased in the same direction over the period 2003 to 2014.

Table 6. Relationship between Governance and Financial Disclosure Requirements in Terms of DHET Regulations for Reporting by PHEIs

Details	2014	2007	2003
Total mandatory governance disclosure item	230	89	87
Total mandatory financial disclosure item	19	17	15
Total mandatory disclosure requirements per Regulation for Reporting	249	106	102
% mandatory governance disclosure item	92%	84%	85%
% mandatory financial disclosure item	8%	16%	15%

Source: Developed by the researcher¹

Further to the above, an assessment of 115 annual reports conducted from 23 SA PHEIs, for the period of 2012 to 2016 indicates a relationship between governance and financial disclosures by the 23 PHEIs in Figure 1 above. Although the ratio of financial disclosure is much higher than the ratio of governance disclosure, both governance and financial disclosures maintained the same trend over the period of 5 years. When the governance disclosure experienced a decline in 2015 to 34% from 53% the same was experienced by the financial disclosure in 2015 it dropped from 82% to 61%. The figure also indicates that, during the period 2012 to 2014, both governance and financial disclosures had an upward trend and a downward trend from 2014 to 2015 and again an upward trend from 2015 to 2016. Therefore, a conclusion can be drawn that there is a direct relationship between governance disclosure and financial disclosures of the 23 SA PHEIs. Figure 2 depicts the same

movement and relationship between governance and financial disclosures captured in Figure 1.

In addition to the descriptive statistics presented in Figures 1 and 2; and Tables 4 to 6 above, the following hypothesis was tested to enable triangulation of the result for this paper.

H0: There is no relationship between governance and financial disclosures by the South African PHEIs.

Results from Tables 6 to 8 below form a logistic regression model show a P-value for one-tail and two-tail tests as follows: P = 0.007 for Logit test; P = 0.006 for Probit test and P = 0.01 for Tobit test. This means that the P-values in all the tests are less than the research alpha of 0.05 ($P < 0.05$). Therefore, the research hypothesis is rejected, which implies that there is a relationship between governance and financial disclosures by the South African PHEIs.

Model 1: Logit: Ordered Logit, using 115 observations with Dependent variable: Financial Disclosure

Table 7. Logit Test of Relationship between Governance and Financial Disclosures in SA PHEIs

Description	Coefficient	Std. Error	Z	P-Value
Governance Disclosure	0.0153923	0.00570813	2.6966	0.00701
Mean dependent variable	12.21739		S.D. dependent variable	4.418428
Log-likelihood	-294.9468		Akaike criterion	625.8936
Schwarz criterion	675.3024		Hannan-Quinn	645.9484

Source: Developed by the researcher¹

Likelihood ratio test: Chi-square (1) = 46.395 [P = 0.001]

Model 2: Probit: Ordered Probit, using 115 observations with Dependent variable: Financial Disclosure

Table 8. Probit Test of Relationship between Governance and Financial Disclosures in SA PHEIs

Description	Coefficient	Std. Error	Z	P-Value
Governance Disclosure	0.00902221	0.0032993	2.7346	0.00625
Mean dependent variable	12.21739		S.D. dependent variable	4.418428
Log-likelihood	-294.8468		Akaike criterion	625.6936
Schwarz criterion	675.1024		Hannan-Quinn	645.7484

Source: Developed by the researcher¹

Model 3: Tobit, using 115 observations with Dependent variable: Financial Disclosure and Standard errors based on Hessian

Table 9. Tobit test of relationship between governance and financial disclosures in SA PHEIs

Description	Coefficient	Std. Error	Z	P-Value
Constant	10.3317	0.87856	11.7599	<0.00001
Governance Disclosure	0.0333055	0.0139202	2.3926	0.01673
Chi-square(1)	5.724565		p-value	0.016729
Log-likelihood	-330.0037		Akaike criterion	666.0075
Schwarz criterion	674.2423		Hannan-Quinn	669.3500

Source: Developed by the researcher¹

Test for normality of residual - Null hypothesis: error is normally distributed test statistic: Chi-square (2) = 4.70408 with p-value = 0.0951749. The above logistics regression was applied to examine the possibility that effective governance disclosure in SA PHEIs may have influenced efficient financial disclosure using three logistics regression techniques (viz., logit, probit and Tobit) as demonstrated in Tables 6 to 9, thereof leading to the rejection of the null hypothesis and acceptance of the alternative hypothesis, namely, that there is a positive relationship between governance and financial disclosures.

5. Discussions

The results in section four above indicate that, although the ratio of financial disclosure is much higher than the governance disclosure, both governance and financial disclosures experienced an increase from 2003 to 2007 DHET Regulation for Reporting by PHEIs. Conversely, both governance and financial disclosures experienced a decline from 2007 to 2014 DHET Regulation for Reporting by PHEIs. Therefore, a conclusion can be drawn that there is a relationship between governance and financial disclosures within the South African PHEIs. The analysis is confirmed through the quantitative analysis that rejects the null hypothesis and accepts the alternative hypothesis that “*there is a relationship between governance and financial disclosures by the South African PHEIs*” depicted through a regression model in Tables 6 to 9. Hope et al., (2011) and Honu and Gajevszky (2014) indicated a positive and strong relationship between governance and quality financial reporting. Samson and Tarila (2014) reported a positive and significant relationship between corporate governance disclosures (in terms of board size, board composition and disclosure index) and financial performance (in terms of return on assets, equity and on investments). Conversely, Zare et al., (2013) indicate a positive and significant effect of profitability on non-financial information disclosure. Both governance and financial disclosures benefited from the learning effect with increased disclosure

from 2012, 2013, 2014, and from 2015 to 2016 based on the 2007 and 2014 Regulation for Reporting by PHEIs respectively.

Councils of PHEIs seem to be failing in their fiduciary duty to ensure compliance with the DHET Regulation for Reporting by public HEIs and to provide public accountability. The DHET seems also to be failing to ensure both adequate monitoring and evaluation, and the enforcement of the regulation (Madison et al., 2016; Madison, 2014). Basnan et al., (2016) developed disclosure requirements for the Malaysian public universities to be used to discharge their public accountability mandate through annual reporting. The findings also confirm prior South African studies such as Barac et al., (2011) and PwC (2014) that governance disclosure of South African HEIs requires significant improvements. The findings in this paper are in line with the assertion by Huisman and Currie (2004) that public accountability is policy rhetoric as government policy simply failed to implement severe policies due to the subversion of accountability mechanism by PHEIs. This is because there has been a wide variety of policies formulated with suggested instruments across countries to implement harsher forms of accountability by PHEIs. Governments argue for accountability measures but fail to act to implement specific policy provisions. It is difficult for governments to monitor whether higher education institutions really account for their governance and financial performance.

6. Conclusion

The main objective of the paper was to investigate the extent of and relationship between governance and financial disclosures by the South African PHEIs as a vehicle for public accountability. The paper depicts a moderately satisfied rating for governance disclosure of 44%, 47%, 53%, 40% for 2012, 2013, 2014 and 2016 respectively, and not satisfied governance disclosure for 2015. Conversely, the results depict a satisfied level of financial disclosure of 70%, 74%, 61% and 66% for 2012, 2013, 2015 and 2016 respectively, and very satisfied financial disclosure rating of 82% for 2014. The paper also found a significant difference in the extent of differences on governance and financial disclosures by the South African PHEIs in terms of DHET 2007 and 2014 Regulations for Reporting by PHEIs. Finally, a significant positive relationship is established between governance and financial disclosures by the South African PHEIs. The study only considered the extent of and relationship between governance and financial disclosures using three disclosure measurement tools, but does not attempt to assess the quality of the information disclosed. A single-sentence description of the requirements by the regulation received the same score as a detailed report of several pages. Despite this limitation, the study provides important insights on determinants of governance and financial disclosures. An examination of the extent of disclosure through positive theory lens has the potential to provide regulators with an increased understanding of what

motivates entities to provide information as part of the financial and non-financial reporting process. This will in turn improve public accountability. It is recommended that the Governance Disclosure Measurement Checklist, rating scale and index for PHEIs be used by Council and Management to self-assess their disclosure level; also for DHET to ensure that the submitted annual reports comply with its Regulation for Reporting by PHEIs. The recommended Governance Disclosure Measurement Checklist, rating scale and index can be utilised by internal and external stakeholders to evaluate the level of governance disclosure so as to ensure public accountability and ask all the relevant information in order to make informed decision, which in turn suggests the level of transparency and accountability discharged by PHEIs.

7. References

- Barac, K.; Marx, B. & Moloi, T. (2011). Corporate Governance Practices at South African PHEIs: An annual report disclosure analysis. *Journal of Economic and Financial Sciences*, 2(4), pp. 317-332.
- Basnan, N.; Md Salleh, M.F.; Ahmad, A. Upawi, I. & Mohd Harun, A. (2016). Information Needs for Accountability Reporting: Perspectives of stakeholders of Malaysian public universities. *Acta Universitatis Danubius (Economica)*, 12(3), pp. 68-82.
- CHE (2016). *South African Higher Education Reviewed: Two decades of democracy*. Pretoria: Council on Higher Education.
- Cao, Y.; Myers, L.A. & Omer, T.C. (2012). Does Company Reputation Matter for Financial Reporting Quality? Evidence from restatements. *Contemporary Accounting Research*, 29(3), pp. 956-990.
- Coy, D. & Dixon, K. (2004). The Public Accountability Index: Crafting a parametric Disclosure Measurement Index for annual reports. *The British Accounting Review*, 36(1), pp. 79-106.
- Coy, D.; Fischer, M. & Gordon, T. (2001). Public Accountability: A new paradigm for college and university annual reports. *Critical Perspectives on Accounting*, (12)1, pp. 1-31.
- Creswell, J.W. & Plano Clark, V.L. (2011). *Designing and Conducting Mixed Methods Research*. 2nd ed. Thousand Oaks, CA: Sage Publications.
- De Silva, C. & Armstrong, A. (2014). Evaluation of Corporate Governance Measures: An application to the Australian higher education sector. *Journal of Business Systems, Governance and Ethics*, 7(1), pp. 76-86.
- Du Toit, A. (2014). *Revisiting Co-operative Governance in Higher Education: A Discussion Document*. Pretoria: Higher Education South Africa.
- Elbannan, M.A. (2009). Quality of Internal Control over Financial Reporting, Corporate Governance and Credit Ratings. *International Journal of Disclosure and Governance*, 6(2), pp. 127-149.
- Eyenubo, S.A.; Mohammed, M. & Ali, M. (2017). Audit Committee Effectiveness of Financial Reporting Quality in Listed companies in Nigeria Stock Exchange. *International Journal of Academic Research in Business and Social Sciences*, 7(6), pp. 487-505.
- Filatotchev, I.; Jackson, G. & Nakajima, C. (2013). Corporate Governance and National Institutions: A review and emerging research agenda. *Asia Pacific Journal of Management*, 30(4), pp. 965-986.

Hassan, O. & Marston, C. (2010). *Disclosure Measurement in the Empirical Accounting Literature A review article*. Available at: <https://www.thefreelibrary.com/What+users+want+in+government+financial+reports.-a08792220>. Accessed on 23 October 2017.

Honu, M.V. & Gajevszky, A. (2014). The Quality of Financial Reporting and Corporate Governance: Evidence from Romanian's Aeronautic Industry. *Economic and Social Development: Book of Proceedings*, p. 517.

Hope, O.K.; Thomas, W. & Vyas, D. (2011). Financial credibility, ownership and financing constraints in private firms. *Journal of International Business Studies*, 42(7), pp. 935-957.

Hosmer, D.W.; Lemeshow, S. & Sturdivant R.X. (2013). *Applied Logistic Regression*. 3rd Ed. New Jersey: John Wiley & Sons.

Huisman, J. & Currie, J. (2004). Accountability in Higher Education: Bridge over troubled water? *Higher Education*, 48(4), pp. 529-551.

Ismail, S. & Abu Bakar, N.B. (2011). Reporting Practices of Malaysian Public Universities: The extent of accountability disclosure. *African Journal of Business Management*, 51(5), pp. 6366-6376.

Klai, N. & Omri, A. (2011). Corporate Governance and Financial Reporting Quality: The case of Tunisian firms. *International Business Research*, 4(1), pp. 158-166.

Krishnan, G.V. & Visvanathan, G. (2008). Does the SOX Definition of an Accounting Expert Matter? The association between audit committee directors' accounting expertise and accounting conservatism. *Contemporary Accounting Research*, 25(3), pp. 827-858.

Madison, K.; Holt, D.T.; Kellermanns, F.W. & Ranft, A.L. (2016). Viewing Family Firm Behaviour and Governance through the Lens of Agency and Stewardship Theories. *Family Business Review*. 29(1), pp. 65-93.

Madison, K.J. (2014). Agency Theory and Stewardship Theory Integrated, Expanded, and Bounded by Context: An Empirical Investigation of Structure, Behaviour, and Performance within Family Firms. *Unpublished doctoral thesis*, University of Tennessee, Knoxville.

Magalhães, A.; Veiga, A.; Amaral, A.; Sousa, S.; Ribeiro Mahadeo, J.D.; Oogarah-Hanuman, V. & Soobaroyen, T. (2011). September. Changes in Social and Environmental Reporting Practices in an Emerging Economy 2004–2007: Exploring the relevance of stakeholder and legitimacy theories. *Accounting Forum*, 35(3), pp. 158-175.

Mamić, Sačer, I. & Oluić, A. (2013). Information Technology and Accounting Information Systems' Quality in Croatian Middle and Large Companies. *Journal of Information and Organisational Sciences*, 37(2), pp. 117-126.

Moloi, T. (2016). Exploring Risks Identified, Managed and Disclosed by South Africa's PHEIs. *Journal of Accounting and Management*, 6(2), pp. 55-70.

Mthembu, T. (2009). *University Governance and the Knowledge Economy: Reconditioning the engine of development*. Development Planning Division Working Paper Series, 3.

Munzhedzi, P.H. (2016). Fostering Public Accountability in South Africa: A reflection on challenges and successes. *TD: The Journal for Transdisciplinary Research in Southern Africa*, 12(1), pp. 1-7.

Omar, B. & Simon, J. (2011). Corporate Aggregate Disclosure Practices in Jordan. *Advances in Accounting*, 27(1), pp. 166-186.

Popova, T.T.; Georgakopoulos, G.; Sotiropoulos, I. & Vasileiou, K.Z. (2013). Mandatory Disclosure and its Impact on the Company Value. *International Business Research*, 6(5), pp. 1-16.

- PwC (2014). *Perspectives in Higher Education*. New York: PricewaterhouseCoopers LLP. Available at: <http://www.pwc.com>. Accessed on 11 March 2016.
- RSA. (1996). *The Constitution of the Republic of South Africa*. Pretoria: Government Printers.
- RSA. (1997). *Higher Education Act, 1997 Act No. 101 of 1997* Pretoria: Government Printers.
- RSA. (2003). *Higher Education Act, 1997 Act No. 101 of 1997 Regulations for Reporting by Higher Education Institutions*. Pretoria: Government Printers.
- RSA. (2007). *Higher Education Act, 1997 Act No. 101 of 1997 Regulations for Reporting by Higher Education Institutions*. Pretoria: Government Printers.
- RSA. (2014). *Higher Education Act, 1997 Act No. 101 of 1997 Regulations for Reporting by Higher Education Institutions*. Pretoria: Government Printers.
- Samson, O. & Tarila, B. (2014). Corporate Governance and Financial Performance of Banks: Evidence from Nigeria. *Acta Universitatis Danubius. Œconomica*, 10(3), pp. 44-58.
- Sánchez, I.M.G.; Domínguez, L.R. & Álvarez, I.G. (2011). Corporate Governance and Strategic Information on the Internet: A study of Spanish listed companies. *Accounting, Auditing and Accountability Journal*, 24(4), pp. 471-501.
- Sebola, M.P. (2017). Governance of South Africa's Higher Learning Institutions – Complexities of internal stakeholder engagement in universities. *African Journal of Public Affairs*, 9(5), pp. 179-189.
- Tang, Q.; Chen, H. & Lin, Z. (2016). How to Measure Country-Level Financial Reporting Quality? *Journal of Financial Reporting and Accounting*, 14(2), pp. 230-265.
- Teddlie, C. & Tashakkori, A. (2009). *Foundations of Mixed Methods Research: Integrating quantitative and qualitative approaches in the social and behavioral sciences*. Thousand Oaks, CA: Sage Publications.
- Tooley, S. & Hooks, J. (2010). Public Accountability: The perceived usefulness of school annual reports. *Australasian Accounting Business and Finance Journal*, 4(2), pp. 39-59.
- Zare, R.; Kiafar, H.; Rasouli, F.; Sadeghi, L. & Behbahani, S. (2013). Examining Financial Leverage, Profitability and Firm Life Influencing Nonfinancial Information Disclosure Quality. *Acta Universitatis Danubius. Œconomica*, 9(6), pp. 163-175.