

Original Research Article

Corporate Social and Environmental Reporting (CSER) and Financial Performance: The Mediating Role of Competitive Advantage.

ABSTRACT

The paper examined the mediating effect of competitive advantage on the relationship between CSER and financial performance in Nigeria. The study adopted the ex-post causal research design because it seeks to examine the causality between CSER and financial performance within a mediation context. A sample size of 100 companies from all sectors listed on the Nigerian Stock exchange (NSE) between 2007 and 2016 was used. Panel regression analysis was used in the estimation of the data. The mediation model was tested based on Baron and Kenny's (1986) conditions for mediation. Results from the study revealed that competitive advantage mediates in the relationship between CSER and financial performance. This result confirms the Resource Based Theory (RBT) that engaging in social and environmental reporting activities can enhance a company's competitive advantage which will ultimately improve the financial performance in Nigeria. The study recommends that corporations in developing and emerging markets should begin to think differently about CSER as a proactive and strategic tool towards enhancing competitive advantage and consequently financial performance rather than just in response to the demand for CSER globally.

Keywords: corporate social and environmental reporting; competitive advantage; financial performance, mediation

35 1. INTRODUCTION

36 Over the past decades, CSER has become a significant issue in developing
37 countries following the increasing effects of corporate activities on social and environmental
38 sustainability. To retain public confidence and expectations and to boost global
39 competitiveness, many firms have increased their communication with internal and external
40 stakeholder groups through the disclosure of social and environmental effects of their
41 business actions in the annual reports [1, 2].

42 Following the Resource Based Theory (RBT), CSER is used to draw critical and
43 invaluable resources from the natural environment hence CSER can play a substantial role
44 in boosting a firm's competitiveness and financial performance in the long-run [3, 4] . These
45 resources which comprise physical and financial including intangible assets such as
46 employees' skills, superior management, social and environmental sensitive suppliers,
47 cooperative partners, organisational processes and intellectual capital should be such that
48 can give the company a competitive edge over its rivals [5]. Furthermore, a growing body of
49 the CSER literature suggest that firms can gain sustainable competitive advantages by
50 reducing its social and environmental impacts of business actions on society through
51 pollution control, product stewardship, product and market place differentiation, research and
52 development and innovation, employee motivation and ability to increase competitors' cost
53 by controlling future industry standards which may eventually enhance future financial
54 performance [3,6].

55 Contrary to this view, some scholars argue that the disclosure of social and
56 environmental information would hamper opportunities for developing critical resources in
57 order to maximize financial performance in terms of profitability and market value. However,
58 the study argues that a firm's financial performance can be enhanced in the long run if it
59 acquires specific capabilities in developing valuable social and environmental resources
60 through cost and differentiation based competitive advantage. Despite the number of
61 substantial evidence on the relationship between social and environmental reporting and firm
62 financial performance, mixed and inconclusive results from empirical studies have emerged

Comment [a1]: Provide evidence of these scholars.

Comment [a2]: This point is not clear. Explain, how social and environmental information develops critical resources?

63 [7]. While some studies reveal a positive relationship between the variables for example
64 [1,8], some others [9] reveal negative results. Furthermore, some other studies have
65 reported neutral results [10] while some others such as [4] reported no significant
66 relationship.

67 One of the fundamental reasons adduced for the mixed and inconclusive results is
68 the failure of most of previous studies to consider the significance of an intermediary process
69 in the relationship between CSER and financial performance. [11] stated that there are a
70 number of variables which play an important role in explaining the relationship between the
71 CSER and financial performance hence the exclusive examination of the direct effect of
72 CSER on financial performance may not suffice. [12] noted that including a mediating
73 variable such as competitive advantage into the relationship could help to elucidate the
74 inconsistencies in prior results and obtain empirical inferences from such results.

Comment [a3]: Has this study proved the mediating relationship of competitive advantage between CSER and financial performance?

75 It is against the aforementioned methodological limitations from previous studies that this
76 study advanced a more robust perspective in estimating the relationship between CSER and
77 financial performance by the introduction of a mediating variable. The study addressed this
78 gap in knowledge by developing a mediating model supported by the Resource Based
79 Theory (RBT) which posits that CSER enhances competitive advantage which consequently
80 improves a firm's financial performance. This study thus examines the mediating role of
81 competitive advantage in the relationship between CSER and financial performance in
82 Nigeria which very few empirical studies have done. The rest of the paper is structured into
83 the following sections; Literature review and hypothesis, theoretical framework and model
84 specification, methodology, results and discussion and finally the conclusion and
85 recommendation.

Comment [a4]: It is required to explain why this study used Nigerian companies?

90 2. LITERATURE REVIEW AND HYPOTHESIS

91 The study hinged on the resource based theory of a firm which posits that a firm that has the
92 ability to develop invaluable, costly to replicate resources and capability is more likely to
93 create a key source of sustainable competitive advantage [13]. A firm may consider its inner
94 potentials and outer environmental aspects capable of creating valuable, rare, non-imitable,
95 non substitutable assets and resources in order to gain a competitive edge in form of
96 manufacturing and production efficiency and reputation which in turn influences its long-run
97 financial performance [13]. Furthermore, the competitive advantage of a firm can be reliable
98 and sustained if it is aware of uncertain environmental (and subsequently social) factors
99 which can make competitors outwit it or reduce its worth to consumers [5]. However, [14]
100 argued that not all firms may realise the benefits of competitive advantage in the same
101 manner because these social and environmental strategies capable of creating competitive
102 advantage require substantial investment, continuous improvement, long term commitment
103 to the environment and a significant organisational capability.

104 From empirical studies, [12] explored the mediating role of competitive advantage
105 and resources of a firm in the relationship between environmental management practices
106 and financial performance using the resource based theory. Data on environmental
107 management practices and financial performance were collected using questionnaire design
108 from 350 Spanish hotels. The structural equation modelling technique was employed and the
109 study revealed that a firm's unique resource and competitive advantage through
110 differentiation are valid mediators in the relationship between proactive environmental
111 management practices and financial performance.

112 [3] explored the relationship between environmental disclosure practices measured by a
113 firm's environmental performance and economic performance among 243 firms within the
114 period 1991 to 1992. The relationship was also moderated by the ability of the industry to
115 create a competitive advantage focused on the resource based theory. The environmental
116 performance ratings were obtained from Franklin Research and Development Corporation's

Comment [a5]: What is the different between asset and resource?

117

118 database and the economic performance measured by ROTA was obtained by
119 COMPUSTAT. The study employed the OLS regression technique and revealed a positive
120 and significant relationship between environmental and economic performances and was
121 further enhanced by industry competitive advantage.

122 [11] examined the mediating role of intellectual capital and industry type as a
123 moderating variable on the relationship between corporate social responsibility reporting and
124 financial performance. The study consisted of 500 largest companies in the US stock market
125 and secondary data was collected from Kinder Lydenberg Dommini rating system and
126 Compustat databases from 1998 to 2008. The sample data consisted of 1144 firm-year
127 observations. Regression analysis was used to test the mediation hypothesis based on [15].
128 Results indicated that corporate social responsibility reporting positively affects intellectual
129 capital which in turn enhances financial performance. [6] examined the mediating effect of
130 competitive advantage on the impact of environmental activities on firm financial
131 performance in Spanish wineries. A sample size of 142 wineries out of population of 1598
132 wineries were employed in Nov, 2015. The study revealed that positive environmental
133 activities can be obtained through cost based and differentiated based competitive
134 advantage. However, the results revealed that there was no significant evidence of impact of
135 cost based competitive advantage on financial performance and revealed a negative impact
136 of differentiated competitive advantage on financial performance.

137 [16] examined the mediating role of Intellectual capital (IC) in the relationship
138 between CSR reporting and corporate financial performance using the resource based
139 theory. The measures of financial performance used in the study were return on equity and
140 return on assets and intellectual capital was measured using Value Added Intellectual
141 Coefficient. The study used a sample of 120 non-financial Karachi Stock Exchange (KSE)
142 listed companies covering 8 non-financial sector of Pakistan within the period of 2009-2014.

The results of this study showed that intellectual capital partially mediates the relationship between CSR reporting and corporate financial performance.

[17] study aims at exploring the intervening variables (social capital) which may mediate the relationship between CSR reporting and CFP in Taiwan. The sample companies were essentially environmentally sensitive firms selected from high-technology and traditional manufacturing industries. A sample of 43 corporate social responsible firms and 43 non-corporate social responsible firms were selected for the study. Social capital was employed as the mediating variable and was measured using interlocking directorates. The result from the regression analysis showed that social capital plays a mediating role in connecting CSR reporting and corporate financial performance (CFP). This implied that CSR reporting had a positive impact on the social capital and social capital subsequently produced a positive effect on financial performance.

Unlike earlier studies, [18] used multiple mediating variables namely; sustainable competitive advantage, reputation, and customer satisfaction as three probable mediators in the relationship between CSR reporting and firm performance. The study was conducted using 205 Iranian manufacturing and consumer product firms. The findings reveal that the link between CSR reporting and firm performance is perfectly mediated by reputation and competitive advantage. The positive effect of CSR reporting on firm performance is due to the positive effect CSR reporting had on competitive advantage, reputation, and customer satisfaction. The study recommended a role for CSR reporting in indirectly promoting firm performance through enhancing reputation and competitive advantage while improving the level of customer satisfaction.

However, there is paucity of studies in Nigeria that have specifically examined the mediating role of competitive advantage in the relationship between corporate social and environmental reporting and financial performance.

Following the discussions from this section, we hypothesize that there is an integrated link between CSER, competitive advantage and firm financial performance such

Comment [a6]: This is not a strong argument to indicate the significance of the present study. The study needs to emphasize why it is useful to identify the relationship among CSER, competitive advantage and financial performance in Nigeria.

that CSER improved the competitive advantage of a firm and in turn led to an enhanced firm's financial performance. We, therefore, theorize that competitive advantage has a significant mediating role in the association between CSER and firm financial performance.

H₀1 Competitive advantage has no significant mediating effect on the relationship between CSER and financial performance.

3. RESEARCH DESIGN

3.1 THEORETICAL FRAMEWORK AND MODEL SPECIFICATION

The Resource Based Theory (RBT) is similar to the Resource Dependency Theory as propounded by [19]. It is concerned with the approach organisations use in gathering resources from the environment. The theory portrays a firm as an open system which depends on the events and possibilities derivable from the outer environment.

According to [14], the resource based theory claimed that companies may be inevitably compelled to develop intangible resources or structurally adjust their operations to ensure compliance with social and environmental protection policy from the society, hence enhancing their resource use efficiency. Such resources developed or created by the firm are expected to be rare, unique, non-imitable and non-substitutable to secure a competitive advantage for it [20]. A company may also be compelled to enhance the value and brand image of the products and services which will serve as an incentive to employees to remain, boost customers' trust and consequently, bring about competitive advantage and an overall enhanced economic and financial performance of the firm. The firm's ability to create a connection with the environment that ensures access to such unique and distinguishable resources provides benefits such as an enhanced brand name and public reputation of the firm [21], greater employee affinity, enhances customer loyalty, and accordingly, boost competitive advantage and financial performance [22]. Following the resource based theory,

we expect that higher reporting of social and environmental information would boost the competitive advantage of a firm and ultimately enhance financial performance. Hence, we develop a research framework for this study;

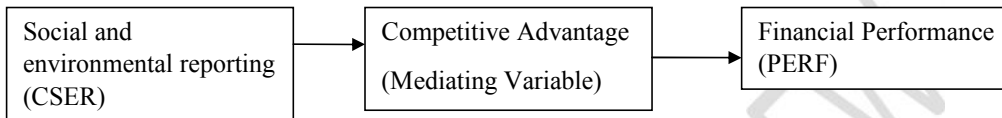


Figure 1: Schematic framework

Source: Researcher's compilation (2019)

Based on the resource based theory, the model of the study is specified below;

Model 1: Corporate Social Environmental Reporting – Financial Performance Model

$$PERF = \beta_0 + \beta_1 CSER + \beta_2 Fsize + \varepsilon_1 \text{-----}(1)$$

Model 2:– Mediation Model – mediating equation (1) with Competitive advantage, we have

$$PERF = \beta_0 + \beta_1 CSER + \beta_2 Cadv + \beta_3 Fsize + \varepsilon_1 \text{-----}(2)$$

Following [15], to establish a mediation,

i. CSER must affect PERF (ROTA, ROE) in model 1

ii. CSER must affect COMPETITIVE ADV in

$$COMPETITIVE ADV = \beta_0 + \beta_1 CSER + \beta_2 Fsize + \varepsilon_1 \text{-----}(3), \text{ and}$$

iii. When PERF (ROTA, ROE) is regressed on both CSER and COMPETITIVE ADV in model 2, COMPETITIVE ADV must affect PERF (ROTA, ROE)

Partial mediation existed where the effect of CSER on PERF (ROTA, ROE) was less in model 2 than in model 1, while perfect mediation existed where CSER had no effect on PERF (ROTA, ROE) in model 2.

3.2 METHODOLOGY

The study adopted the ex-post causal research design because the study seeks to examine the direct and indirect (with respect to the mediation model) relationship between the reporting of social and environmental information and PERF among listed firms (both financial and non financial) over a period of ten (10) years. The total population of this study consists of the total number of one hundred and seventy eight (178) listed companies (both financial and non-financial) on the Nigerian Stock Exchange (NSE) as at 31st December,

2016 (NSE website, 2016). A sample size of 100 companies from all sectors listed on the Nigerian Stock exchange (NSE) between 2007 and 2016 was used. The study employed the Content Analysis Disclosure Index technique to generate data for CSER constructed using the annual reports of the sampled companies based on the GRI framework. The return on assets (ROTA) measured by Net profit to total asset ratio and return on equity (ROE) measured by Net profit to total equity ratio (accounting-based measures) were used to generate a proxy for financial performance. The mediating variable –competitive advantage was measured by Value added from internal operations divided by total assets and the firm size was measured by firm's total assets. The Panel regression analysis was employed in the data estimation. The mediation model would be tested based on the conditions for mediation as espoused by [15]. The econometric software used for data importation and analysis is STATA 13.

Comment [a7]: What is the technique utilized to select these 100 companies?

Comment [a8]: How this measurement scale was developed? Is it adopt from prior studies?

4. RESULTS AND DISCUSSION

Comment [a9]: The study is suggested to provide sample profile of the 100 companies.

Table 4.1: Descriptive statistics

		CSER	ROA	ROE	FSIZE	C.adv
Mean	0.43357	4.198609	25.24541	7.211272	0.274956	
Median	0.357143	3.462141	11.56186	7.077112	0.226031	
Maximum	1	232.6198	102.72	9.637756	2.175454	
Minimum	0	-88.9854	-2087.7	4.937655	-0.31792	
Std. Dev.	0.199556	13.40564	357.9041	0.909296	0.230858	
Skewness	0.797486	4.536814	24.24384	0.419118	2.289048	
Kurtosis	2.982601	94.59274	687.072	2.867026	13.18274	
Jarque-Bera	104.5259	348040	19321718	29.59318	5120.92	
Probability	0.00	0.00	0.00	0.00	0.00	
Observations	986	986	986	986	986	

Source: Researcher's Compilation (2019)

Table 4.1 above provided the descriptive statistics of the data. From the table, we observed that CSER has a mean of 0.43357 with maximum and minimum values of 1 and 0 respectively. The mean value of CSER suggested that the average CSER score from the sampled companies which communicated information on social and environmental issues was quite low. The findings were consistent with those of [4, 23, 24]. The standard deviation of 0.1999 suggested that there was low variability of the firm specific scores away from the mean. Hence, there was the need for companies to improve their reporting on CSER related issues. The accounting based measure (ROTA) had a positive mean value of 4.19 with maximum and minimum values of 232.6198 and -88.985 respectively. It suggested that the

283

284 average ROTA value of sampled companies was quite low. The standard deviation of
285 13.4056 revealed the dispersion of the firm specific values from the distribution mean. The
286 mean for ROE was 25.245 with maximum and minimum values being 102.72 and -2087.7
287 respectively with a standard deviation of 357.9041 which suggested a significant variability in
288 the ROE values away from the mean.

289 The mean value for FSIZE was 7.2113 with maximum and minimum values of
290 9.6377 and 4.937 respectively and a standard deviation of 0.9092. The mean value for
291 C.adv was 0.274 with a maximum value of 2.175 and a minimum value of -0.317
292 respectively. The standard deviation showing the dispersion of the data about the mean was
293 quite low at 0.231. The Jacque-bera (J.B) statistics which accounted for the degree of
294 skewness, kurtosis and normality of the data revealed that the series was normally
295 distributed over the period of time covered given that the J.B values had p-values less than
296 0.05. It implied the absence of significant outliers in the data.

Comment [a10]: Keep the consistency of abbreviation.

297 **Table 4.2: Multicollinearity Test**

298	Variable	VIF
299	C	NA
300	CSER	1.634559
301	C-Adv	1.046876
302	FSIZE	1.199036

Comment [a11]: Keep the consistency of abbreviation.

303 Source: Researcher's compilation (2019)

304

305 The variance inflation factor (VIF) explained how much of the variance of a coefficient
306 estimate of a regressor was inflated as a result of collinearity with the other regressors.
307 Essentially, VIF values above 10 were seen as a cause for concern because they indicated
308 the presence of multicollinearity. From the table above, none of the variables had VIF values
309 more than 10, hence there was no indication of multicollinearity.

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311
312

Table 4.3: CSER → Financial performance Results

		ROTA	ROE
314	C	9.445*	74.0668
315		(4.499)	(5.5799)
316		{0.035}	{0.000}
317	CSER	7.8031*	8.5228
318		(2.1925)	{2.359}
319	FSIZE	{0.000}	{0.000}
320		-1.2021*-	7.3215
321		(0.5695)	{0.8640}
322		{0.0350}	{0.0000}
323			
324	R2	0.0092	0.4907
325	Adj R2	0.007	0.4334
326	F-Stat	4.609	8.5674
327	P(f-stat)	0.010	0.000
328	D.W	1.535	1.6

329 Source: Researcher's compilation (2019), () are standard errors; { } are P-values, * sig at 5%

330

331 As shown in the results, the R^2 for the ROTA model is 0.0092 which implies that the
332 model explains about 0.9% of the systematic variations in the dependent variable. The F-stat
333 was 4.609 with ($P = 0.00$) indicating that the hypothesis of a significant linear relationship
334 between the dependent and independent variables was accepted at 5% level of significance.
335 It is also indicative of the joint statistical significance of the model. The beta for *CSER* is
336 positive (7.8031) and significant ($P = 0.00$) at 5%. The beta for *FSIZE* is negative (-1.2021)
337 but significant ($P = 0.03$) at 5% and Durbin-Watson statistics of 1.535. The R^2 for the ROE
338 model is 0.491. The F-stat was 8.5674 with ($P = 0.00$) indicating that the hypothesis of the

existence of a significant linear relationship between the dependent and independent variables was accepted at 5% level of significance. It is also indicative of the joint statistical significance of the model. The beta for CSER is positive (8.5228) and significant ($P = 0.00$) at 5%. The beta for FSIZE is negative (-7.3215) and significant ($P = 0.000$) at 5%. The Durbin-Watson statistics is 1.6 suggesting no significant serial correlation challenges.

344

345 **Table 4.4: Competitive advantage → CSER & Financial Performance Results**

346

347		ROTA	ROE	C-adv
348	C	-12.5234	*79.9809	0.8636
349		(1.8562)	(9.3274)	(0.0430)
350		{0.000}	{0.000}	{0.000}
351				
352	C-adv	24.059*	12.6760	
353		(1.1297)	(2.904)	
354	CSER	{0.000}	{0.000}	
355		-0.6482	6.4695	0.0720
356		(0.7258)	(2.7340)	{0.0143}
357		{0.3721}	{0.1082}	{0.000}
358	FSIZE	1.4257*	-8.1999*	-0.0855*
359		(0.2624)	(1.3174)	{0.006}
360		{0.000}	{0.000}	{0.000}
361	R2	0.750	0.542	0.859
362	Adj R2	0.718	0.483	0.841
363	F-Stat	23.233	9.55	47.824
364	P(f-stat)	0.000	0.000	0.000
365	D.W	1.7	1.9	2.04

366 Source: Researcher's compilation (2019), () are standard errors; { } are p-values, * sig at 5%

367

368

369 The results in table 4.3 and table 4.4 were estimated to test the [13] conditions for
370 mediation. The mediation of competitive advantage in the relationship between CSER and
371 financial performance was tested based on the method proposed by [13]. They posited that
372 the following conditions must hold to establish mediation: CSER must affect financial
373 performance, CSER must affect competitive advantage and when financial performance is
374 regressed on both CSER and competitive advantage, competitive advantage must affect
375 financial performance. Perfect mediation holds if CSER has no effect on financial
376 performance.

377 Accordingly, the results from table 4.3 showed that CSER affects financial
378 performance (ROTA & ROE) in the first model which satisfies the first condition.
379 Furthermore, from table 4.4 CSER has a positive and significant impact on competitive
380 advantage (0.0720, $P = 0.00$) which satisfies the second condition. Finally, when financial
381 performance is regressed on both CSER and competitive advantage, competitive advantage
382 must affect financial performance and perfect mediation holds if CSER has no effect on
383 financial performance to satisfy the third condition. From table 4.4, we observed that C-adv
384 had a positive and significant impact on ROA (24.059, $P = (0.00)$) and C-adv had a positive
385 and significant impact on ROE (12.6760, $P = 0.00$). Again, it was observed that CSER is not
386 significant in the regression of financial performance on C-adv and CSER. Hence, as seen
387 from the results and in line with [13], conditions to establish a perfect mediation were all
388 satisfied. Consequently, competitive advantage is a valid mediating variable in the
389 relationship between CSER and financial performance (PERF).

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396 **Table 4.5: CSER, Competitive advantage and ROA Results**

397		FE	RE
398	C	-13.568*	-12.588
399		(1.9051)	[4.654]
400		{0.000}	{0.007}
401	CSER	0.1336	5.4195*
402		(0.4649)	{2.4299}
403		{0.7738}	{0.0259}
404	CAdv	24.0554*	21.4087
405		(1.767)	{2.3499}
406		{0.000}	{0.000}
407	FSIZE	1.6872*	1.1462
408		(0.2386)	(0.6238)
409		{0.000}	{0.000}
410	R2	0.7191	0.132
411	Adj R2	0.6865	0.128
412	F-stat	22.013	30.265
413	P (f-stat)	0.000	0.000
414	D.w	1.8	1.9
415	Hausman		0.279

416 Source: Researcher's compilation (2019), () are standard errors; { } are p-values, * sig at 5%
 417

418 Table 4.5 shows the mediating regression results of Competitive advantage on the
 419 relationship between CSER and Financial performance (ROTA). The Hausman test for
 420 choosing the FE model over the RE model with a *P* value of 0.279 at 5% significance level
 421 indicated that the FE method may give a biased and an inconsistent estimator when

422 compared to RE model which confirmed the preference for the RE. As shown in the results,
 423 the R^2 for the RE model is 0.132 which implies that the model explains about 13.2 % of the
 424
 425
 426 systematic variations in the dependent variable. The F-stat is 30.265 (P -value = 0.00) is
 427 significant at 5% and suggest that the hypothesis of the existence of a significant linear
 428 relationship between the dependent and independent variables cannot be rejected. The
 429 Durbin-Watson statistics value of 1.6 indicates the absence of serial correlation. The
 430 performance of the variables reveals that CSER has a significant impact (5.4195, P =
 431 0.0259) on ROTA when competitive advantage is introduced as a mediating variable.
 432 Competitive advantage has a positive (21.4087) and significant (P =0.00) effect on ROTA.
 433 Firm size used as control variable is positive with a value of 1.1462 though not significant at
 434 5%.

435 **Table 4.6: CSER, Competitive advantage and ROE Results**

436		FE	RE
437	C	-9.3035*	104.6802
438		(9.674)	{68.9577}
439		{0.336}	{0.1293}
440	CSER	5.3149*	-11.2294
441		(2.2819)	(43.165)
442		{0.0201}	{0.7948}
443	CAsv	18.4095*	1.3946
444		(4.9333)	(70.659)
445		{0.000}	(0.9843)
446	FSIZE	0.7304*	-9.5245
447		(1.314)	(7.151)
448		{0.5786}	{0.2106}
449	Adj R2	0.386	0.0016
450	F-stat	0.3146	-0.003
451	P (f-stat)	5.406	0.326

452	D.w	1.7	2.00
453	Hausman		0.029

454 Source: Researcher's compilation (2019), () are standard errors; { } are p-values, * sig at 5%
455

456

457 Table 4.6 shows the mediating regression results of Competitive Advantage on the
458 relationship between CSER and Financial performance (ROE). The Hausman test for
459 choosing the FE model over the RE model with *P*-value of 0.029 at 5% significance level
460 indicated that the RE method may give a biased and an inconsistent estimator when
461 compared to FE model thus confirming the preference for the FE. As shown in the results,
462 the R^2 for the FE model is 0.386 which implies that the model explains about 38.6% of the
463 systematic variations in the dependent variable. The F-stat value of 5.406 (*P* -value = 0.00)
464 was significant at 5% and suggested that the hypothesis of a significant linear relationship
465 between the dependent and independent variables could not be rejected. It was also
466 indicative of the joint statistical significance of the model with a Durbin-Watson statistics
467 value of 1.7. The performance of the variables reveals that CSER has a significant impact
468 (5.3149, *P* =0.020) on ROE when competitive advantage is introduced as a mediating
469 variable. However, competitive advantage has a positive (18.4095) and significant (*P*=0.00)
470 effect on ROA. Firm size used as control variable is positive though not significant at 5%.

471 On the overall, from the analysis of the results, it is observed that competitive
472 advantage mediates the relationship between CSER and financial performance. The effect
473 of CSER on financial performance using ROTA and ROE is significant and positive in the
474 context of the mediating role of competitive advantage. The study also showed that CSER
475 significantly influences competitive advantage. Furthermore, the study showed that
476 competitive advantage in turn affects financial performance in terms of ROTA and ROE.
477 Consequently, following the findings of the result on the mediating role of competitive
478 advantage in the relationship between CSER and PERF (in terms of ROTA, ROE **we fail to**

479 **accept the null hypothesis that the mediating role of competitive advantage has no**
480 **significant effect on the relationship between CSER and PERF.**

481 The finding is in tandem with the work of [3, 12] which revealed that an improved CSER
482 allows firms to enhance their competitiveness in terms of cost reduction, attract customers
483 leading to increased sales, and build a strong reputation, therefore, positively impacting on a

484
485 firm's overall financial performance. Also, the study is in tandem with [18] whose findings
486 reveal that the link between CSR and firm performance is a perfectly mediated by
487 competitive advantage and the reputation of the firm. However, the findings of this study
488 deviate from the findings of [6, 25] which did not give a substantive evidence of the
489 mediating effect of competitive advantage on financial performance.

490

491 **5. CONCLUSION AND RECOMMENDATION**

492 In a world of growing competitiveness in the business and capital markets, CSER is
493 increasingly being embraced as a strategic management tool in drawing critical and
494 invaluable resources from key stakeholders and the environment in order to increase
495 shareholder's wealth and as a source of competitive advantage. The instrumental
496 stakeholder theory posits that an increased reporting of social and environmental information
497 by companies attracts key investors, cooperative partners, and social and environmentally
498 sensible customers which leads to increased patronage and marketability of equities
499 (shareholder's funds), improved reputation and competitive advantage and in turn boosts the
500 financial performance of the firm.

501 Following the resource based theory, companies who create valuable resources and
502 firm-specific assets such as skilled manpower and organizational processes supported by
503 unique social and environmental strategies such as emission reduction, product

differentiation, improved manufacturing efficiency, increased employee motivation and influenced future industry standards which increased their competitor's cost, improved the firm's market productivity and financial performance. However, extant literature has shown mixed results from the empirical evaluation on the relationship between social and environmental reporting and financial performance. While some studies have revealed a positive and significant relationship, others have revealed a negative and no significant relationship. [11] argued that the non inclusion of intervening variables such as mediating variables in the relationship between the two variables account for the inconsistency in the results. They opined that many factors indirectly affect the relationship and introducing a mediating variable specified in the model would better explain the resulting effect of the independent variable on the dependent variable.

Consequently, this study advances an integrated approach by the introduction of competitive advantage in the relationship between CSER and financial performance. A number of studies have examined the mediating role of competitive advantage in the correlation between corporate social responsibility and financial performance, for instance, [18] and corporate environmental variables and financial performance [12], but there is paucity of study which have examined the mediating role of competitive advantage in the relationship between CSER and financial performance in Nigeria. The study adopted the ex-post causal research design using sample size of 100 listed companies from 2007 to 2016. The mediating role of competitive advantage in the relationship of CSER and financial performance was tested using the mediation model suggested by [13]. The results showed that the introduction of the mediating variable had a positive and significant effect on the relationship between CSER and financial performance, and could not be ignored. This situation confirms the RBT that higher reporting of social and environmental information can enhance competitive advantage which will ultimately improve the financial performance. The finding also suggests that the effect of CSER on financial performance was dependent on a

532 firm's unique ability to create resources and capabilities required to contribute to a
 533 distinguished competitive advantage in order to improve financial performance. The study
 534 recommends that corporations in developing and emerging markets should pay attention to
 535 resource constraints and management capabilities that can facilitate well defined
 536 environmental and social objectives towards achieving sustainability development policies in
 537 order to gain competitive advantage over its rivals and consequently, enhance their financial
 538 performance.

Comment [a12]: The analysis performed in this study did not provide enough evidence to make this argument. This study did not analyse the resource and capabilities of the sample companies. It only examined the mediating role of competitive advantage in the relationship between CSER and financial performance.

Comment [a13]: Your analysis is not enough to make that recommendation.

539 **COMPETING INTERESTS**

540
 541 **Authors declare that they have no potential conflicts of interest regarding the**
 542 **research, authorship, and/or publication of this article.**
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548 **REFERENCES**

- 549 1. Khelif H, Guidara A, Souissi, M. Corporate social and environmental disclosure and
 550 corporate performance. *Journal of Accounting in Emerging Economies*. 2015; 5
 551 (1):51– 69.
- 552 2. Pizzi S. The Relationship between Non-financial Reporting, Environmental Strategies
 553 and Financial Performance. *Empirical Evidence from Milano Stock Exchange*.
 554 *Administrative Sciences*. 2018; 8 (76): 1-9.
- 555
 556 3. Russo MV, Fouts PA. A resource-based perspective on corporate environmental
 557 performance and profitability. *Academy of Management Journal*. 1995; 40 (3):534
 558 – 559.
- 559 4. Dibia NO, Onwuchekwa JC. Determinants of environmental disclosures in Nigeria: A
 560 case study of oil and gas companies. *International Journal of Finance and*
 561 *Accounting*. 2015; 4(3):145-152.
- 562
 563 5. Clarkson PM, Li Y, Richardson GD, Vasvari FP. Does it really pay to be green.
 564 Determinants and consequences of proactive environmental strategies. *Journal of*
 565 *Accounting and Public Policy*. 2011; 30 (2): 122–144.
- 566

6. Junquera B, Barba-Sánchez V. Environmental proactivity and firms' performance: mediation effect of competitive advantages in spanish wineries. *Sustainability*. 2018; 10 (7): 1-18.
7. Qiu Y, Shaukat A, Tharyan R. Environmental and social disclosures: Link with corporate financial performance. *British Accounting Review*. 2014; 1 (1): 1-41.
8. Ahmed M N, Zakaree S, Kolawole OO. Corporate social responsibility disclosure and financial performance of listed manufacturing firms in Nigeria. *Research Journal of Finance and Accounting*. 2016;7(4): 47-58
9. Jia W, Linxiao L, Adam S. Environmental disclosure, firm performance, and firm characteristics: An analysis of S&P 100 firms. *Journal of Academy of Business and Economics*. 2010; 10 (4): 73-83.
10. Schaltegger S, Figge F. Environmental shareholder value: Economic success with corporate environmental management. *Eco-Management and Auditing*.2000; 7(1):29-42.
11. Lin C, Chang R, Dang VT. An integrated model to explain how corporate social responsibility affects corporate financial performance. *Journal of Sustainability*. 2015; 7 (1):8292-8311
12. Lopez-Gamero MD, Molina-Azorín J F, Claver-Cortés E. The whole relationship between environmental variables and firm performance: competitive advantage and firm resources as mediator variables. *Journal of Environmental Management*. 2009; 90 (10):3110- 3121.
13. Barney JB, Arikan A. The resource-based view: Origins and implications. In Hitt Michael A, Freeman R. Edward, & Harrison Jeffrey, S. (Eds.), *The Blackwell Handbook of Strategic Management*. Malden, USA: Blackwell Publishing.2005.
14. Hart SL. A natural-resource based view of the firm. *Academy of Management Review*. 1995; 20 (4): 986-1014.
15. Baron RM, Kenny DA. The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and social psychology*. 1986; 51(6): 1173.
16. Muhammad H, Hammad S, Nadeem N, Muhammad K, Impact of corporate social responsibility on financial performance: the role of intellectual capital. 2017.

- 607 17. Peng Y, Huang C, Dashdeleg A. Corporate social responsibility and corporate
608 financial performance: the intervening effect of social capital. *Journal of Advanced*
609 *Management Science*. 2015; 3(4): 19-35.
- 610 18. Saeidi SP, Sofian S, Saeidi P, Saeidi SP, Saeidi A S. How does corporate social
611 responsibility contribute to firm financial performance. The mediating role of
612 competitive advantage, reputation, and customer satisfaction. *Journal of Business*
613 *Research*. 2015; 68 (2): 341-350.
- 614 19. Pfeffer J, Salancik GR. The external control of organisations: A resource dependence
615 perspective. New York, NY: Harper and Row. 1978.
- 616 20. Barney JB, Firm resources and sustained competitive advantage. *Journal of*
617 *Management*. 1991; 17(1): 99-120.
- 618
- 619 21. Brown TJ, Dacin PA. The company and the product: corporate associations and
620 consumer product responses. *Journal of marketing*. 1997; 61 (1): 68–85
- 621
- 622 22. Bird R, Hall A, Momente F, Reggiani F. What corporate responsibility activities are
623 valued by the market. *Journal of Business Ethics*. 2007; 76 (1): 189–206.
- 624
- 625 23. Orakwue AC, Okoye, A C. A content analysis of social and environmental disclosures
626 practices of ten ngse 30 index companies. *The Official Journal of Nigerian*
627 *Accounting Association*. 2014; 5 (3): 279-294.
- 628
- 629 24. Uwuigbe U, Egbide B. Corporate social responsibility disclosures in Nigeria: A
630 study of listed financial and non-financial firms. *Journal of Management and*
631 *Sustainability*. 2012; 2 (1): 160- 169
- 632
- 633 25. Jain P. Exploring the mediating role of Intellectual capital and competitive advantage
634 on the relationship between corporate social responsibility and financial performance
in SMEs. *Social Responsibility Journal*. 2017; 13 (1): 1-23