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SUSTAINABILITY REPORTING AND FINANCIAL PERFORMANCE IN LISTED CONSUMER GOODS FIRMS IN NIGERIA: MODERATING EFFECT OF MANAGERIAL OWNERSHIP STRUCTURE

***S. ABDURRAZAQ ; **DR M. N. AHMED; & ***DR L. O. MUSTAPHA**
**Department of Accountancy, Kaduna Polytechnic, Kaduna. **Department of Accounting, Nigerian Defence Academy, Kaduna. ***Department of Accounting, Nigerian Defence Academy, Kaduna*

ABSTRACT
This study examined the effect of sustainability reporting on profitability of listed consumer goods firms in Nigeria, with moderating effect of managerial ownership structure. Profitability margins are noted to be dwindled owing to social and environmental responsibility demands in listed consumer goods firms in Nigeria. Related party transactions among directors of companies are known to be promoting information asymmetry. Correlational research design was adopted. Secondary data were sourced from annual reports and sustainability reports of companies for content analysis. The population size was 21 listed consumer goods firms on the Nigerian Exchange. The sample size was 17, using convenience sampling technique. The panel data generated was run on STATA 13 with random effects GLS regression. The descriptive statistics adopted were mean and standard deviation. The inferential statistics employed include multiple regression analysis, t-test and chi-square. The findings reveal that sustainability reporting, with moderating effect of managerial ownership structure, has positive and insignificant effect on profitability of listed consumer goods firms in Nigeria. Specifically, economic disclosure and environmental disclosure have insignificant effect while social disclosure has insignificant negative effect on profitability with moderating effect of managerial ownership structure. The major recommendation holds that regulatory authorities in Nigeria should not make sustainability disclosure mandatory on companies in the consumer goods sector of the economy.

Keywords: *sustainability reporting, economic disclosure, social disclosure, environmental disclosure, profitability and managerial ownership structure.*

Introduction
Sustainability reporting obtains prominence from managements of companies notably after the United Nations' rolled over framework from Millennium Development Goals

(MDGs) to Sustainable Development Goals (SDGs, 2015 -2030). Few companies which have hitherto given attention to sustainability reporting in their financial reporting and stewardship accounting in Nigeria are mostly found in the oil and gas sector. Consumer goods firms have since been reported to be having less than 2% disclosure practices on their products, human rights and environmental activities (Folashade, et al., 2016). One of the factors which accounts for less practices hinges on the non-availability of guidelines from the national regulatory authorities and so, sustainability reporting has not been made mandatory (Ezeagba, et al., 2017). The Financial
Reporting Council of Nigeria (FRC, 2011) outlines its Rule 7 as "Other National Disclosures" to be included in the annual reports of listed companies. These Disclosures are Statement of Value Added and Statement of Five-Year Financial Summary.
Thus, sustainability reporting has been made to remain a voluntary disclosure despite pressure from various demands of stakeholders in their economic, social and environmental relations with companies. Directors have been urged to run the affairs of companies in the best interest of shareholders and assure them foreseeable continuity and robust performances. Corporate governance has called for separation of ownership from management of companies but International Financial Standard (IFRS 2) on has practically enabled directors and senior managers to be paid for their services either by cash or by issuance of ordinary shares for them to become shareholders (Institute of Chartered Accountants of Nigeria [ICAN, 2019]; Finch, 2011). Managerial ownership structure is then acknowledged when board members of directors have up to 5% and above of the total issued and paid up ordinary shares (Dangote Sugar Annual Report, 2020; Madiwe, 2014). Companies in the consumer goods sector with directors as shareholders are seen in better position of balancing the pressure of interests between shareholders and stakeholders in terms of financial reporting and sustainability reporting. Thus, this scenario precipitates a research question as follows: what is the effect of managerial ownership structure on the relationship between sustainability reporting and financial performance in listed consumer goods firms in Nigeria?
The specific objectives of the study are to:

i. examine the effect of managerial ownership structure on the relationship between economic disclosure and profitability of listed consumer goods firms in Nigeria;
ii. assess the effect of managerial ownership structure on the relationship between social disclosure and profitability of listed consumer goods firms in Nigeria; and
iii. x-ray the effect of managerial ownership structure on the relationship between environmental disclosure and profitability of listed consumer goods firms in Nigeria.

Hypothesis

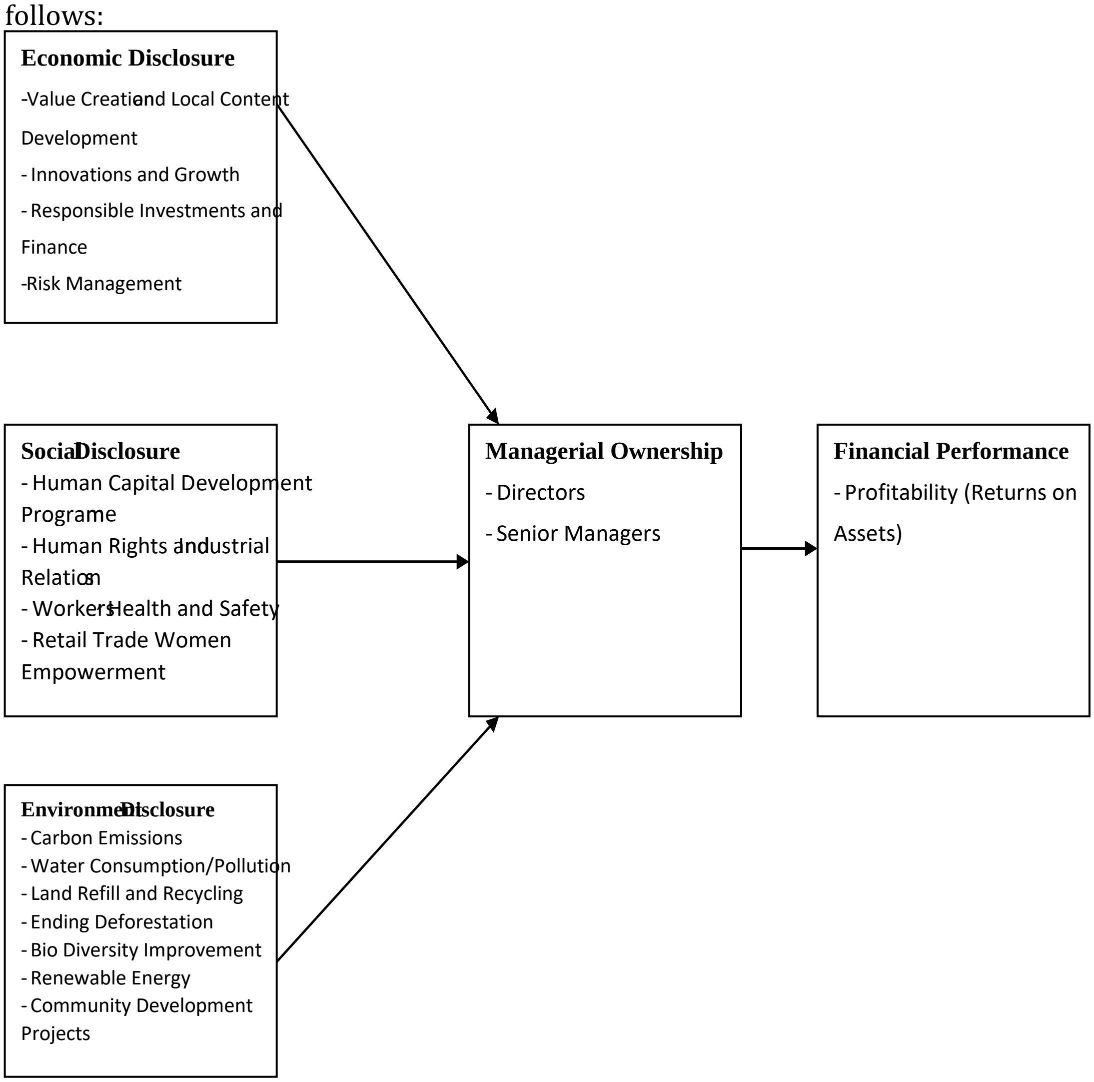
H_{01}: There is no significant effect of managerial ownership structure on the relationship between economic disclosure and profitability in listed consumer goods firms in Nigeria.

H_{02}: There is no significant effect of managerial ownership structure on the relationship between social disclosure and profitability in listed consumer goods in Nigeria.
H_{03}: There is no significant effect of managerial ownership structure on the relationship between environmental disclosure and profitability in listed consumer goods firms in Nigeria.

Literature Review

Conceptual literature

This subsection entails concise discussions of the understanding of the variables used in the study. These variables include economic disclosure, social disclosure and environmental disclosure in sustainability reporting. Other variables are managerial ownership structure and financial performance. They are represented in the Figure I as follows:



Sustainability Reporting

Several authors have defined sustainability reporting. According to Deloitee (2020), sustainability reporting produces a "report published by an organization on its material nonfinancial performance information, incorporating Environmental, Social and Governance (ESG) concerns." Dworczak (2020) identifies the role of sustainability accounting to involve harmonization of linkages among performance management, internal control system and corporate reporting. Suncor Report (2020) in Global Reporting Initiative and Sustainability Accounting Standards Board (GRI-SASB, 2021) joint publication emphasizes material sustainability priorities to include safety and reliability of workplace, reduction of carbon emission causing climate change, indigenous relations with host communities and water stewardship for aquatic lives and domestic uses.

From these definitions, it is deducible that sustainability reporting is concerned with how social and environment matters affect product performance in consumer goods firms and other listed companies in Nigeria. Thus, it is understood as economic disclosure, social disclosure and environmental disclosure.

Economic Disclosure

Economic disclosure, as a segment in sustainability reporting, refers to information disclosure on product and performance which leads to value creation and growth of the company size through its innovation strategies from one reporting year to another. Dangote Sugar (2020) records its economic disclosure for sustainability reporting vis-à-vis inclusiveness promotion, economic growth, self-reliance, self-sufficiency and industrialization in the different markets of its operations. Seplat (2020) views economic disclosure from the angles of job creation, local content development and youth and women empowerment. Coca-cola (2018) presents its economic disclosure in terms of volume growth and value share across all category clusters – sparkling soft drinks, juice, diary, water, tea, coffee and energy in over 200 countries and territories. Norm (2018) in cement industry holds economic disclosure of its sustainability reporting in transport and logistics, economic stability, industry symbiosis and circular economy.

Social Disclosure

Information about company's relations with people around its business activities is to be furnished so as to ascertain the extent to which they have influenced product performance in the company. Widok (2009) sees fair responsibilities in social sustainability to four categories of people: those who are directly connected with the organizational activities and products such as employees, suppliers and customers. Another set of people the company is to be responsible to are people who are existing within the location of company's plant, head office and branches. Thirdly, company's activities should not affect animal husbandry in scarcity and expensiveness for human consumption. Lastly, companies are called upon for their commitment to regeneration and replenishment of depleting natural resources in their day to day operations.

Companies are thus required to provide such pieces information in their annual and sustainability reports (Miles, 2019).

Environmental Disclosure

Environmental disclosure has been understood and presented in other nomenclatures such as green accounting, environmental accounting and planet reporting. Companies in manufacturing activities have been made to be handling environmental issues in their corporate reporting. These issues bother around pollution, gas emission and environmental degradation of host communities
(Joyce, 2020). Such companies are required to provide information on their technical and financial commitments towards reduction in degradation effects and conditions. Tata Consumer Product Limited (TCPL, 2021) reports that its land fill waste had drastically reduced to zero within last four years while its water and energy consumptions have also progressively reduced within the periods. Its Green House Gas emission recorded 44.29% increase in financial commitment. Unilever Annual Report and Accounts (2019) records 29% reduction in its carbon emission in comparison with 2018 annual reports. Its grid electricity has replaced fossil fuel as a source of renewable energy across five continents of the world.

Managerial Ownership Structure

Managerial ownership structure is a component of ownership structure in company ordinary share capital. Directors of companies in both executive and non-executive capacities have been necessitated to have interest in the ordinary share capital of the companies they are managing. IFRS 2 on Share-based Payment has provided ground on which directors of listed companies can legally acquire ordinary shares; either they choose to be paid in ordinary shares for the services rendered or to be paid in cash (ICAN, 2014). As the weight of the shareholdings by the board of directors reaches 5% and above of the issued and paid up share capital, such shareholdings are described as managerial ownership structure of the share capital (Dangote Sugar Annual Report,
2020). Furthermore, these directors acquire ordinary shares of ailing companies through Management Buy-In and Management Buy-Out (BIMBO) in corporate restructuring and financial reengineering while such companies temporarily go private pending the financial performance recovery and relisting on the stock exchange (ICAN, 2014).

Financial Performance

Financial performance is a measure of the extent to which returns have been realized on assets and liabilities that occupy capital structure of companies. Several yardsticks are being used to assess such returns. Return on Equity (ROE), Return on Capital Employed (ROCE) or Return on Assets (ROA), and Net Profit Margin (NPM) are being employed to appraise financial performance (Emmanuel & Ifeanyichukwu, 2020; Blessed & Fodio, 2019; Agu and Amedu, 2018; Augusta et al., 2018). Turnover growth in sales volume between the current year and the last four years are being used in the assessment financial performance (Adegbie et al., 2021). Cash value added in terms of cash flow analysis and cash balances in the five year financial summary is another measure of financial performance (Nzekwe et al., 2021). Other proxies include price book value, stock returns, growth in earnings and dividends payout and liquidity of working capital ((Indriawati et. al, 2021; Kinyua, 2020; Uwuigbe et al., 2018).

Theoretical Framework

The study is anchored on two theories: Elkington's Triple Bottom Line Reporting Theory hinges sustainability reporting while Friedman's Stockholder Theory of Corporate Moral Responsibility is tied to financial performance and managerial ownership structure.

Elkington's Triple Bottom Line Reporting Theory

Elkington (1994) establishes that mutual consideration must be given to both shareholders' and stakeholders' interests in companies. Thus, there must be interplay among profit, people and planet (3Ps). The balancing attention in turn promotes corporate image, loyalty to company products and continuity of its foreseeable future. The profit is realizable from economic activities disclosed and the products being sold. The people around the economic activities include workers, customers, suppliers, lenders and general public among others. They need to be ethically related. The planet refers to environment in terms of host community, water consumption, gas emission, land refill, pollution and degradation. So, company is under moral duty to improve environmental conditions of its locality wherein its business activities are carried on.

Friedman's Stockholder Theory of Corporate Moral Responsibility

Friedman (1970) postulated that corporate organizations are artificial persons whose interests are to be protected solely to meet shareholders' expectations (Mc Aleer, 2002). Directors and managements of companies with or without interest in the ordinary share capital are expected to use their expertise to act in the best interest of shareholders towards profit maximization and wealth maximization from company activities. After all, the business environment is a free society for economic activities having been duly paying taxes to the government.

Review of Empirical Studies

This is concerned with review of the previous studies quantitatively conducted on the field in relation to the current study. It is organized according to newest year of study as related to the variables in the study.

Nzekwe (2021) assessed the effect of sustainability reporting on cash value added in quoted industrial goods companies in Nigeria. The research design was ex-post facto research design. The population size was 15 industrial goods companies out of which 11 were made as sample size, using purposive sampling. The descriptive statistics employed were mean and standard deviation while the inferential statistics included least square regression analysis. The findings reveal that economic reporting, social reporting and environmental reporting are each positive and significant to cash value added at 0.05 level of significance. Indriawati et al. (2021) examined the impact of sustainability reports on price book value in non-financial companies in Indonesia. The research design was casual research design. The population size was 273 companies listed on the Indonesian Stock Exchange. The descriptive statistics used included mean and standard deviation while the inferential statistics included regression analysis, t-test and ANOVA. The findings show that sustainability reports have positive but insignificant on price book value in non-financial companies in Indonesia.

Ighosewe (2021) studied the effect of corporate social responsibility disclosure on firm performance in the listed industrial and consumer goods firms in Nigeria. The research designed adoption was ex-post facto research design. The population of the study was all the firms listed on the Nigerian Stock Exchange up to 2010. The sample size was 10 firms, using purposive sampling technique. The data were run electronically on GRETL software. The findings show that corporate social responsibility disclosure reduces Tobin Q insignificantly. Etale et al. (2021) assessed the effect of social cost accounting on profitability of Glaxo-Smith pharmaceutical consumer products. The research design was a case study design. The trend of the study was nine years (2011 – 2018). The descriptive and inferential statistics were run on E-view 10 software. The findings establish that social cost accounting, through the R-Square, has 94% effect on profitability in Glaxo-Smith pharmaceutical consumer products.

Emmanuel and Ifeanyichukwu (2021) examined the effect of environmental accounting disclosure on assets, return on equity and share price of manufacturing firms in Nigeria. The research design adopted was ex-post facto research design. The population of the study was all the manufacturing companies quoted on the Nigerian Stock Exchange as at 31st December,
2019. The sample size was 40 manufacturing firms, using convenience sampling technique. The findings reveal that environmental accounting disclosure has positive and significant effect on each of return on equity, return on assets and share price in manufacturing firms in Nigeria.

Kinyua (2020) assessed the impact of corporate sustainability reporting on stock returns of Nairobi Stock Exchange (NSE) listed firms. The research design was a descriptive crosssectional design. The population of the study was all 63 listed firms in the NSE. The descriptive statistics employed included percentages, frequency counts, mean, standard deviation, graphs and tables. Multiple regression analysis, Pearson correlation coefficient of determination, t-test and ANOVA were used as inferential statistics. The findings reveal corporate sustainability reporting, size of the firm, leverage and management efficiency contribute a joint impact of 39.3% (R-Square value of 0.393) on stock returns of the firms listed in the NSE while the 60.7% of the impact are attributable to other variables which are outside the study. The F-statistic at 0.05% significant level established significant impact of corporate sustainability reporting on stock returns of the listed firms in the NSE.

Ikechukwu and Blessing (2020) assessed the effect of sustainability reporting on economic value added of manufacturing firms quoted on the Nigeria Stock Exchange. The research design employed was ex-post facto research design. The population of the study was 59 listed manufacturing companies in Nigeria. The sample size was 21, using purposive sampling technique. The descriptive and inferential statistics employed included mean, standard deviation and panel least square regression analysis run on E-views 10 software. The findings reveal that economic sustainability reporting, social sustainability reporting, environmental sustainability reporting and sustainability governance reporting each have positive and significant effect on economic value added of listed manufacturing firms in Nigeria, at 0.05 level of significance.

Menike (2020) carried out a study on the impact of environmental disclosure on firm performance: an empirical analysis of food, beverage and tobacco sector companies listed in Colombo stock exchange. The research design adopted was correlational research design. The population of the studywas 50 companies listed in the food, beverage and tobacco sector out of

26 were sampled, using purposive sampling technique. The trend of the study was eight years (2012 – 2019) and the total observations were 208. The technique of data analysis employed was regression using fixed and random effect models. The result from fixed effect model established that environmental accounting disclosure has significant impact positively on firm performance.

The firm size is established to have significant impact positively on ROA (firm performance). Liquidity was found to be insignificant in firm performance in the food, beverage and tobacco companies in Sri Lanka.

Sanusi and Sanusi (2019) assessed the effect of environmental sustainability reporting on financial performance of quoted manufacturing firms in Nigeria. The proxies used for financial performance were earning per share, revenue growth, and return on assets. The research design was survey research design, using panel data by content analysis. The population of the study was 68 quoted manufacturing firms across five sectors of the Nigerian economy. Purposive sampling technique was used to select 33 firms in existence before the year 2010. The techniques of data analysis adopted include descriptive statistics and inferential statistics. The findings reveal that environmental sustainability reporting has positive and significant effect each on revenue growth and return on assets but such positive effect is insignificant on earnings per share in the quoted manufacturing firms selected in Nigeria.

Ohaka and Ogaluzor (2018) studied corporate social responsibility accounting and the effect of donations on profitability of oil and gas companies in Nigeria. The research design employed was cross sectional survey research design. The population of the study was 137 staff from three oil and gas companies. The sample size was 102 by the use of

Yamane formula. The research instrument was designed on a 5-point Likert scale to obtain data from respondents. Descriptive and inferential statistics were run on the Statistical Package for Social Science (SPSS). The hypotheses were tested at 0.05 level of significance. The results show that donations have positive and significant effect on return on equity and net profit in oil and gas companies. Agu and Amedu (2018) assessed the effect of sustainability reporting on profitability of listed pharmaceutical firms in Nigeria. The research design adopted was ex-post facto research design.
The sample size of the study was seven randomly selected pharmaceutical firms listed on the Nigerian Stock Exchange. The descriptive statistics adopted were mean and standard deviation while the inferential statistics employed were multiple regression analysis and t-test run on SPSS 22.0 software. The major findings reveal that sustainability reporting, with economic disclosure, social disclosure and environmental disclosure used as proxies separately and jointly, has positive and insignificant effect on each of Return on Assets (ROA), Return on Equity (ROE) and Net Profit Margin (NPM), used as proxies for profitability, in listed pharmaceutical firms in Nigeria.
Uwuigbe et al. (2018) examined the influence of sustainability reporting on firm performance and the influence of firm performance on sustainability reporting. The research design adopted was ex-post facto research design. The population of the study was 16 quoted money deposit banks, out of which 10 banks were judgmentally selected as sample size. The major findings include market price per share of the sampled firms has negative and significant influence on sustainability reporting. But sustainability reporting, on the other hand, has positive and significant influence on revenue generation of sampled firms in the banking industry.

Methodology

The research design adopted was correlational research design. The population size was 21 listed consumer goods firms on the Nigerian Exchange. The sample size was 17 listed consumer goods firms. Convenience sampling technique was used to pick the listed consumer goods firms which have their published annual /sustainability reports between 2011 and 2020. The population and sample sizes were presented in the Table 1 as follows.

Table 1
Population of Consumer Goods Firms Listed on the Nigerian Exchange

Name	Ticker	Date of Listing/	Company	Relisting	Sampled
1.	BUA	Foods PLC	BUAFOODS	December,2021	No
2.	Cadbury	Nigeria PLC	CADBURY	1976	Yes
3.	Champion	Breweries PLC	CHAMPION	September,1983	Yes
4.	Dangote	Sugar Refinery PLC	DANGSUGAR	March, 2007	Yes
5.	DN	Tyre & Rubber PLC	DUNLOP	1978	No
6.	Flour Mills Nigeria PLC		FLOURMILL	November, 1978	Yes

7.	Golden Guinea Breweries PLC	GOLDBREW	February, 2019 - R	No
8.	Guinness Nigeria PLC	GUINNESS	January, 1965	Yes
9.	Honeywell Flour Mill PLC	HONYFLOUR	October, 2009	Yes
10.	International Breweries PLC	INTBREW	April, 1994	Yes
11.	MC Nichols PLC	MCNICHOLS	December, 2009	Yes
12.	Multi Trex Integrated Foods PLC	MULTI-TREX	November,2010	No
13.	Northern Nigeria Flour Mills PLC	NNFM	1978	Yes
14.	Nascon Allied Industries PLC	NASCON	October, 1992	Yes
15.	Nestle Nigeria PLC	NESTLE	April, 1979	Yes
16.	Nigerian Breweries PLC	NB	September, 1973	Yes
17.	Nigerian Enamelware PLC	ENAMELWA	December, 1979	Yes
18.	PZ Cussions Nigeria PLC	PZ	July, 1972	Yes
19.	Unilever Nigeria PLC	UNILEVER	April, 1973	Yes
20.	Union Dicon Salt PLC	UNIONDICON	September, 1993	Yes
21.	Vitafoam Nigeria PLC	VITAFOAM	1978	Yes

Source: Nigerian Stock Exchange Live, April 14, 2022

Content analysis was conducted in the sampled annual / sustainability reports. Total observations stood at 170. Descriptive and inferential statistics of the study were run on STATA 13 alongside the post estimation tests. The model of the study was presented in the regression equation as follows:
$PROF = \alpha0it + \beta1ECD^{*}MGOit + \beta2SCD^{*}MGOit + \beta3END^{*}MGOit$
$+\varepsilon it$ Where:
PROF = Profitability (Return on Assets; measured as Profit after Tax divided by Total Assets) α_0 = Intercept of the models (constant)
β_{1-3} = Coefficients of the models.
ECD = Economic Disclosure (1 was used to represent its disclosure in the annual / sustainability reports or 0 for its non-disclosure in the reports)
SCD = Social Disclosure (1 was used to represent its disclosure in the annual / sustainability reports or 0 for its non-disclosure in the reports)
END = Environmental Disclosure (1 was used to represent its disclosure in the annual / sustainability reports or 0 for its non-disclosure in the reports)
MGO = Managerial Ownership Structure (minimum of 5% of ordinary share capital held by board of directors of the listed consumer goods firms sampled)
ε = standard error i = number of firm observation (17) t = period of annual reports, 2011 - 2020 (10 years).

Results and Discussion

Table 2
Descriptive Statistics

Variables	Obs.	Mean	Std. Dev.	Min.	Max.
PROF	170	0.0343	0.3643	-2.3599	3.2371
ECDMGO	170	0.1765	0.3823	0	1

SCDMGO	170	0.2235	0.4178	0	1
ENDMGO	170	0.1765	0.3823	0	1

Source: STATA 13 Outputs

From the Table 2, profitability has minimum value of -2.3599 and maximum value of 3.2371.

The minimum value implies 236% loss to a least company among the sampled firms in the study. This loss could be attributed to low practice of sustainability reporting by such least company which might invest public confidence and high patronage of the company's products. The maximum value indicates gain of a top company to the tune of 324%. The maximum gain could be understood from the sustained corporate image which in turn influences augmentation of market-shares, sales and innovation of the company's more new products.

Table 3

Results of Normality Test

Variables	Obs.	W	V	t-value	p-value
PROF	170	0.4075	76.783	9.905	0.0000
ECDMGO	170	0.9565	5.643	3.949	0.0000
SCDMGO	170	0.9712	3.726	3.002	0.0013
ENDMGO	170	0.9565	5.643	3.949	0.0000

Source: STATA 13 Outputs

From the Table 3, the data for the economic disclosure, social disclosure and environmental disclosure, moderated each managerial ownership structure, are described not to be normally distributed. The justification for this hinges their respective probability values (p-values) which are each lower than 0.05 significant level for their null hypotheses.

Table 4

Multi-co-linearity Test

Variable	VIF	1/VIF
ENDMGO	3.45	0.289773
SCDMGO	4.91	0.203619
ENDMGO	4.30	0.232818
Mean VIF	4.22	

Source: STATA 13 Outputs

The Variance Inflation Factors (VIFs) in the Table 4 for each of the variables are within the range of tolerance value, as the rule for VIF holds that 1 or less than 1 indicates absence of multico-linearity. VIF which is greater than 1 but less than 5 is considered tolerable. The mean VIF is also tolerable.

Table 5 ***Imtest Heteroskedasticity Test***

Source	Chi^2	df	p-value
Heteroskedasticity	0.99	5	0.9637
Skewness	0.22	3	0.9747
Kurtosis	1.78	1	0.1827
Total	**2.98**	**9**	**0.9651**

Source: STATA 13 Outputs

From the table 5, heteroskedasticity shows a chi-square of 0.99 and a p-value of 0.9637. This means that the p-value tabulated is greater than 0.05 level of significance. So, there is absence of the heteroskedasticity in the panel data. Rather, the data are described to be homoskedastic.

Table 6: GLS *Regression Coefficients for PROF*

Variables	Coefficient	Std. Err.	t-value	P-value	0.05	Interval
Constant	0.0302	0.0339	0.89	0.374	-0.0363	0.0967
ECDMGO	0.0520	0.1388	0.37	0.708	-0.2201	0.3242
SCDMGO	-0.0435	0.1540	-0.28	0.778	-0.3452	0.2583
ENDMGO	0.0261	0.1560	0.17	0.867	-0.2796	0.3318
R^2	**Within**	**Between**	**Overall**	**Chi 2**	**Prob. > Chi 2**	
	0.0000	0.0304	0.0019	0.27	0.9649	

Source: STATA 13 Outputs

PROF = 0.0302 + 0.0520ECDMGO – 0.0435SCDMGO + 0.0261ENDMGO + 0.0339

From the Table 6, the coefficent for the intercept which is constant is 0.0302. The coefficient for the ECDMGO is 0.0520 and its p-value is 0.708. The coefficient means that economic disclosure moderated by managerial ownership has a contribution of 5.20% in every ₦1 increase in the profit. The p-value means the positive effect is not significant. The coefficient for the SCDMGO is -0.4348 and its p-value is 0.778. The coefficient hints that social disclosure moderated by managerial ownership decreases profit by 4.35 %. This means SCDMGO has a contribution of 4.35% in every ₦1 loss suffered in the company accounts. The p-value, since it is greater than the 0.05 level of significance, means the negative effect is insignificant. The coefficient for the ENDMGO is 0.0261 and its p-value is 0.867. The coefficient means that environmental disclosure moderated by managerial ownership has increase of 2.61% in profitability while the pvalue establishes that the positive effect is not significant.

The random effect regression results in the table 6 show that sustainability reporting moderated by managerial ownership structure has positive effect but insignifinant on profitability. The coefficient of determination in the random effects GLS regression holds 00.19% effect on profitability to infer that 99.81% of the effect is attributable to other factors which are outside the current study. The p-value for the chi-square test of significance (0.9649) further attests the acceptance of null hypothesis due to its greatness over the level of significance. The Triple Bottom Line Reporting Theory on which sustainability reporting and financial peformance are anchored is then not strongly supported by the findings, even though earlier findings do in part as presented in the proxies used for sustainability reporting. This scenario does not fold the circumstances when general public is not fed in company annual reports with several innovations, investments, value creations, workers' welfares, donations to community projects and scholarships, before such companies colud perpectuate realisation of annual profits without significant drops from prior years. The Stockholder Theory of Corporate Moral Responsibility mandating directors of companies to be operating and acting in the best interest of shareholders for profitability and forseeable continuity is supported by the findings but not as strongly as expected. The situation may not be unconnected with rising costs of operations and low interest of directors in the shareholdings in the industry and business environment within which listed consumer goods firms carry on their activities. Agu and Amedu (2018) perfectly agree with the findings that sustainability reporting is economically, socially and environmentally positive and insignificant to each of return on assets, return on equity and net profit margin in firms listed in Nigeria while Ikechukwu and Blessing (2020) and Sanusi and Sanusi (2019) insist that sustainability reporting, as a whole, is not only positive but also significant on financial peformance. Indriawati et. al (2021) establish that sustainability reports have positive and insignificant impact on price book value of firms while price book value and profitability have strong connection as measures of financial performance. Specifically, economic disclosure moderated by managerial ownership strucuture alludes positive and insignificant effect on profitability. These findings partially agree with Nzekwe et al. (2021), Kinyua (2020) and Uwuigbe et al. (2018) that the effect of economic sustainability reporting on financial performance is positive but disagree with them that the effect is not signicant. Uwuigbe et al. (2018) invert that market price has negative effect on sustainability reporting. Social disclosure moderated by managerial ownership structure is consolidated to have negative and insignificant effect on profitability. These findings are in corroboration with Ighosewe (2021) that social responsibility disclosure reduces financial performance insignificantly. Conversely, the findings are in divergence with Etale et al. (2021) and Ohaka and Ogaluzor (2018), who establish that social sustainability reporting has positive and significant effect on profitability and financial performance of companies in Nigeria. Environmental disclosure moderated by managerial ownership strucuture establishes positive and insignificant effect on profitability. These findings partially agree with Emmanuel and Ifeanyichukwu (2020) and Menike (2020) who uphold that environmental disclosure is not only positive but also significant on financial performance of companies.

Conclusion and Recommendations

From the study, the findings reveal that managerial ownership structure has effect on the relationship between between sustainability reporting and financial performance but such effect is further established to be insignificant. Economic disclosure and environmetal disclosure each moderated by managerial ownership structure have insignificant positive effect on profiytability while the social disclosure moderated by managerial ownership structure has insignifcant negative effect on profitability. Therefore, recommendations are provided as follows.

i. As the management intensifies efforts on growth capability of the company's economic activities in line with its corporate objectives and strategies, voluntary disclosure of company's going-concern should be sustained by the FRCN and other regulatory authorities in their issuance of codes of corporate governance and guidelines to listed consumer goods companies in Nigeria.
ii. The managements of listed consumer goods companies are urged to step up their efforts at moderating expenses on workers' welfare, donations and scholarships to people and report accordingly in their CSR voluntary disclosure.
iii. Alternative sources of energy and waste disposals should be obtained by the management with a view to lowering costs of correcting pollution, environmental degradation and footprint attributable to factory operations in listed consumer goods firms in Nigeria.
iv. Lastly, the managements of listed consumer goods firms are enjoined to sustain their practices of acting in the best interest and subscribe more to ordinary shares of the companies in which they are directing the corporate affairs.

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Appendix I

Panel Data Set for the Study

ID	year	Company	PROF	ECD	SCD	END	MGO	ECDMGO	SCDMGO	ENDMGO
1	2011	Cadbury Nig	0.1091	0	0	0	0	0	0	0
1	2012	Cadbury Nig	0.086	1	1	1	0	0	0	0
1	2013	Cadbury Nig	0.1395	0	1	1	0	0	0	0
1	2014	Cadbury Nig	0.0652	1	1	1	0	0	0	0
1	2015	Cadbury Nig	0.0406	0	1	1	0	0	0	0
1	2016	Cadbury Nig	-0.0104	0	1	1	0	0	0	0
1	2017	Cadbury Nig	0.0106	0	1	1	0	0	0	0
1	2018	Cadbury Nig	0.0158	1	1	1	0	0	0	0
1	2019	Cadbury Nig	0.0254	1	1	1	0	0	0	0
1	2020	Cadbury Nig	0.0261	1	1	1	0	0	0	
	0									
2	2011	Champion Bre	-0.9565	1	1	0	0	0	0	
	0 2	2012	Champion Bre	-.01967	1	1	1	0	0	
	0	0								
2	2013	Champion Bre	-0.129	1	1	1	0	0	0	0
2	2014	Champion Bre	-0.0828	1	1	1	0	0	0	0
2	2015	Champion Bre	0.0092	1	1	1	0	0	0	0
2	2016	Champion Bre	0.0551	1	1	1	0	0	0	0
2	2017	Champion Bre	0.0513	1	1	1	0	0	0	0
2	2018	Champion Bre	-0.157	1	1	1	0	0	0	0
2	2019	Champion Bre	0.0088	1	1	1	0	0	0	0
	2	2020	Champion Bre	0.001	1	1	0	0	0	0
	0									
	3	2011	Dangote Sugar 0.1029		1	0	0	0	0	0
	0									

3	2012	Dangote Sugar	0.1301	1	1	0	1	1	1	0
3	2013	Dangote Sugar	0.1554	1	1	1	1	1	1	1
3	2014	Dangote Sugar	0.1224	1	1	0	1	1	1	0
3	2015	Dangote Sugar	0.1187	1	0	0	1	1	0	0
3	2016	Dangote Sugar	0.0807	1	1	1	1	1	1	1
3	2017	Dangote Sugar	0.1929	1	1	1	1	1	1	1
3	2018	Dangote Sugar	0.1447	1	1	1	1	1	1	1
3	2019	Dangote Sugar	0.1217	1	1	1	1	1	1	1
3	2020	Dangote Sugar	0.121		1	1	1	1	1	1
1										
4	2011	FMN	0.081	0	0	0	0	0	0	0
4	2012	FMN	0.0486	1	1	1	0	0	0	0
4	2013	FMN	0.0392	1	1	1	0	0	0	0
4	2014	FMN	0.0505	1	1	1	0	0	0	0
4	2015	FMN	0.0117	1	1	1	0	0	0	0
4	2016	FMN	0.0427	0	1	1	0	0	0	0
4	2017	FMN	0.0305	0	1	1				
4	2018	FMN	0.0272	0	1	1				

4 2019 FMN N0.0622 0 1 1 1 1 1

4 2020 FMN 0.0389 1 1 1 1 1 1 1

5 2011 Guiness Nig 0.1945 1 1 1 1 1 1 1

5 2012 Guiness Nig 0.1431 1 1 1 1 1 1 1

5 2013 Guiness Nig 0.098 1 1 1 1 1 1 1

5 2014 Guiness Nig 0.0723 1 1 1 1 1 1 1

5 2015 Guiness Nig 0.0638 1 1 1 1 1 1 1

5 2016 Guiness Nig -0.0147 1 1 1 1 1 1 1

5 2017 Guiness Nig 0.0132 1 1 1 1 1 1 1

5 2018 Guiness Nig 0.0438 1 1 1 1 1 1 1

5 2019 Guiness Nig 0.0341 1 1 1 1 1 1 1

5 2020 Guiness Nig -0.0873 1 1 1 1 1 1 1

Honeywell
6 2011 flour 0.0756 1 1 1 1 1 1 1

Honeywell
6 2012 flour 0.0531 1 1 1 1 1 1 1

Honeywell
6 2013 flour 0.0513 1 1 1 1 1 1 1

Honeywell
6 2014 flour 0.0525 1 1 1 1 1 1 1

Honeywell
6 2015 flour 0.0165 0 0 0 1 0 0 0

Honeywell
6 2016 flour -0.0398 0 1 1 1 0 1 1

Honeywell
6 2017 flour 0.038 0 1 1 1 0 1 1

Honeywell
6 2018 flour 0.0355 0 0 0 1 0 0 0

Honeywell
6 2019 flour 0.0003 1 1 1 1 1 1 1

Honeywell
6 2020 flour 0.0046 0 1 1 1 0 1 1

7 2011 Int'l Breweries -0.1489 0 0 0 0 0 0 0

7 2012 Int'l Breweries 0.0027 0 0 0 0 0 0 0

7 2013 Int'l Breweries 0.101 0 1 0 0 0 0 0

7 2014 Int'l Breweries 0.0864 1 1 1 0 0 0 0

7 2015 Int'l Breweries 0.0645 1 1 1 0 0 0 0

7 2016 Int'l Breweries 0.0792 1 1 1 0 0 0 0

7 2017 Int'l Breweries 0.023 0 1 1 0 0 0 0
7 2018 Int'l Breweries -0.0166 1 1 1 0 0 0 0
7 2019 Int'l Breweries -0.0757 0 0 0 0 0 0 0
7 2020 Int'l Breweries -0.0497 1 1 1 1 1 1 1
8 2011 Mc Nichols 0.0213 0 0 0
8 2012 Mc Nichols 0.0351 0 0 0
8 2013 Mc Nichols 0.0729 0 0 0 0 0 0
8 2014 Mc Nichols 0.1072 0 0 0 0 0 0
8 2015 Mc Nichols 0.1173 0 0 0 0 0 0 0
8 2016 Mc Nichols 0.1177 0 0 0 0 0 0 0
8 2017 Mc Nichols 0.0631 0 0 0 0 0 0 0
8 2018 Mc Nichols 0.0495 0 0 0 1 0 0 0
8 2019 Mc Nichols 0.028 1 1 1 1 1 1 1
8 2020 Mc Nichols 0.0227 1 1 1 1 1 1
1
NN Flour
9 2011 Mills 0.2201 0 0 0 0 0 0 0
NN Flour
9 2012 Mills -0.0126 0 0 0 0 0 0 0
NN Flour
9 2013 Mills 0.0697 0 0 0 0 0 0 0
NN Flour
9 2014 Mills 0.0733 0 1 0 1 0 1 0
NN Flour
9 2015 Mills -0.0823 1 1 0 1 1 1 0
NN Flour
9 2016 Mills -0.101 0 1 0 1 0 1 0
NN Flour
9 2017 Mills -0.0026 0 1 0 1 0 1 0
NN Flour
9 2018 Mills -0.011 1 1 0 1 1 1 0
NN Flour
9 2019 Mills 0.0615 0 1 0 1 0 1 0
NN Flour
9 2020 Mills 0.04 0 1 1 1 0 1 1
10 2011 NASCON 0.2144 1 1 0 0 0 0 0
10 2012 NASCON 0.2588 1 1 0 0 0 0 0
10 2013 NASCON 0.2362 1 1 1 0 0 0 0
10 2014 NASCON 0.1487 1 0 0 0 0 0 0
10 2015 NASCON 0.1292 1 0 0 0 0 0 0
10 2016 NASCON 0.0982 0 0 0 0 0 0 0
10 2017 NASCON 0.1774 0 0 0 0 0 0 0
10 2018 NASCON 0.146 1 1 1 0 0 0 0
10 2019 NASCON 0.0477 0 0 0 0 0 0 0
10 2020 NASCON 0.0607 1 1 1 0 0 0 0
11 2011 Nestle Nigeria 0.2649 1 1 1 0 0 0 0
11 2012 Nestle Nigeria 0.2363 1 1 1 0 0 0 0
11 2013 Nestle Nigeria 0.0467 1 1 1 0 0 0 0
11 2014 Nestle Nigeria 0.2297 1 1 1 0 0 0 0
11 2015 Nestle Nigeria 0.1593 1 1 1
11 2016 Nestle Nigeria 0.2376 1 1 1

11 2017 Nestle Nigeria 0.2122 1 1 1 0 0 0
11 2018 Nestle Nigeria 0.2096 1 0 0 0 0 0
11 2019 Nestle Nigeria 0.2057 1 1 1 0 0 0 0

11 2020 Nestle Nigeria 0.1991 1 1 1 0 0 0 0
Nigerian
12 2011 Breweries 0.195 1 1 1 0 0 0 0
Nigerian
12 2012 Breweries 0.145 1 1 1 0 0 0 0
Nigerian
12 2013 Breweries 0.1704 1 1 1 0 0 0 0
Nigerian
12 2014 Breweries 0.1216 1 1 1 0 0 0 0
Nigerian
12 2015 Breweries 0.1067 0 0 0 0 0 0 0
Nigerian
12 2016 Breweries 0.0772 1 1 1 0 0 0 0
Nigerian
12 2017 Breweries 0.0825 1 1 1 0 0 0 0
Nigerian
12 2018 Breweries 0.0461 1 1 1 0 0 0 0
Nigerian
12 2019 Breweries 0.0502 1 1 1 0 0 0 0
Nigerian
12 2020 Breweries 0.0155 1 1 1 0 0 0 0
Nigerian
13 2011 Enamelware 0.2964 0 0 0 0 0 0 0
Nigerian
13 2012 Enamelware 0.0295 0 0 0 0 0 0 0
Nigerian
13 2013 Enamelware 0.0336 0 0 0 0 0 0 0
Nigerian
13 2014 Enamelware 0.0279 1 0 0 0 0 0 0
Nigerian
13 2015 Enamelware 0.0148 0 0 0 0 0 0 0
Nigerian
13 2016 Enamelware 0.0294 0 0 0 0 0 0 0
Nigerian
13 2017 Enamelware 0.0077 0 0 0 0 0 0 0
Nigerian
13 2018 Enamelware -0.0007 0 0 0 0 0 0 0
Nigerian
13 2019 Enamelware -0.0551 0 0 0 0 0 0 0
Nigerian
13 2020 Enamelware -0.0703 0 0 0 0 0 0 0
PZ Cusson
14 2011 Nigeria 0.0948 1 1 1
PZ Cusson
14 2012 Nigeria 0.0204 1 1 1 0 0 0
PZ Cusson
14 2013 Nigeria 0.0442 1 1 1 0 0 0 0
PZ Cusson
14 2014 Nigeria 0.0772 1 1 1 0 0 0 0
PZ Cusson
14 2015 Nigeria 0.0451 1 1 1 0 0 0 0
PZ Cusson
14 2016 Nigeria 0.0069 1 1 1 0 0 0 0
PZ Cusson
14 2017 Nigeria 0.0306 0 1 1 0 0 0 0
PZ Cusson
14 2018 Nigeria 0.0219 1 1 1 0 0 0 0

PZ Cusson
14 2019 Nigeria 0.009 1 1 1 0 0 0 0
PZ Cusson
14 2020 Nigeria -0.1003 0 1 1 0 0 0 0
Unilever
15 2011 Nigeria -0.0433 1 1 1 0 0 0 0
Unilever
15 2012 Nigeria -0.0737 1 1 1 0 0 0 0
Unilever
15 2013 Nigeria 0.0809 1 1 1 0 0 0 0
Unilever
15 2014 Nigeria 0.0559 1 1 1 0 0 0 0
Unilever
15 2015 Nigeria 0.0526 1 1 1 0 0 0 0
Unilever
15 2016 Nigeria 0.0152 1 1 1 0 0 0 0
Unilever
15 2017 Nigeria 0.0625 1 1 1 0 0 0 0
Unilever
15 2018 Nigeria 0.1086 1 1 1 0 0 0 0
Unilever
15 2019 Nigeria 0.1563 1 1 1 0 0 0 0
Unilever
15 2020 Nigeria 0.1703 1 1 1 0 0 0 0
Union Dicon
16 2011 Salt -0.6124 0 0 0 0 0 0 0
Union Dicon
16 2012 Salt -0.2295 0 0 0 0 0 0 0
Union Dicon
16 2013 Salt 0.1367 0 0 0 0 0 0 0
Union Dicon
16 2014 Salt -0.9326 0 0 0 0 0 0 0 Union Dicon
16 2015 Salt -0.0384 0 0 0 0 0 0
Union Dicon
16 2016 Salt 3.2371 0 0 0 0 0 0 0
Union Dicon
16 2017 Salt -0.9864 0 0 0 0 0 0 0
Union Dicon
16 2018 Salt -2.3599 0 0 0 0 0 0 0
Union Dicon
16 2019 Salt -1.2753 0 0 0 0 0 0 0
Union Dicon
16 2020 Salt -0.1733 0 0 0 0 0 0 0
Vitafoam
17 2011 Nigeria 0.0712 0 0 0 0 0 0 0
Vitafoam
17 2012 Nigeria 0.0534 1 1 0 0 0 0 0
Vitafoam
17 2013 Nigeria 0.0441 0 0 0 0 0 0 0
Vitafoam
17 2014 Nigeria 0.0658 1 1 1 0 0 0 0
Vitafoam
17 2015 Nigeria 0.0525 1 1 1 0 0 0 0
Vitafoam
17 2016 Nigeria 0.0315 0 0 0 0 0 0 0
Vitafoam
17 2017 Nigeria 0.0132 0 0 0 0 0 0 0

Vitafoam
17 2018 Nigeria 0.0321 1 1 1 0 0 0 0
Vitafoam
17 2019 Nigeria 0.1274 0 0 0 0 0 0 0
Vitafoam
17 2020 Nigeria 0.1746 1 1 1 0 0 0 0

PPENDIX II

Data Analysis on the STATA 13

. sum PROF ECDMGO SCDMGO ENDMGO

Variable	Obs	Mean	Std. Dev.	Min	Max
PROF	170	.034259	.3643198	-2.3599	3.2371
ECDMGO	170	.1764706	.3823462	0	1
SCDMGO	170	.2235294	.4178409	0	1
ENDMGO	170	.1764706	.3823462	0	1

. swilk PROF ECDMGO SCDMGO ENDMGO

Shapiro-Wilk W test for normal data

Variable	Obs	W	V	z	Prob>z
PROF	170	0.40745	76.783	9.905	0.00000
ECDMGO	170	0.95645	5.643	3.949	0.00004
SCDMGO	170	0.97124	3.726	3.002	0.00134
ENDMGO	170	0.95645	5.643	3.949	0.00004

. reg PROF ECDMGO SCDMGO ENDMGO

Source	SS	df	MS	
				Number of obs = 170
				F(3, 166) = 0.11
Model	.043646487	3	.014548829	Prob > F = 0.9554
Residual	22.3875416	166	.134864708	R-squared = 0.0019
				Adj R-squared = -0.0161
Total	22.4311881	169	.132728924	Root MSE = .36724

PROF	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
ECDMGO	.0560043	.1372525	0.41	0.684	.2149812	.3269898
SCDMGO	.0423963	.1498256	0.28	0.778	.3382057	.2534131
ENDMGO	.0234236	.1531232	0.15	0.879	.2788964	.3257436
_cons	.0297191	.031981	0.93	0.354	.0334228	.092861

.
. vif

Variable	VIF	1/VIF
SCDMGO	4.91	0.203619
ENDMGO	4.30	0.232818
ECDMGO	3.45	0.289773
Mean VIF	4.22	

. imtest, white
White's test for Ho: homoskedasticity against Ha: unrestricted heteroskedasticity
chi2(5) = 0.99 Prob > chi2 = 0.9637
Cameron & Trivedi's decomposition of IM-test

Source	chi2	df	p
Heteroskedasticity	0.99	5	0.9637
Skewness	0.22	3	0.9747
Kurtosis	1.78	1	0.1827
Total	2.98	9	0.9651

Ramsey RESET test using powers of the fitted values of PROF
Ho: model has no omitted variables
F(3, 162) = 0.27
Prob > F = 0.8477

.
. xtset ID year panel variable: ID (strongly balanced) time variable: year, 2011 to 2020
delta: 1 unit

. xtreg PROF ECDMGO SCDMGO ENDMGO
Random-effects GLS regression Number of obs = 170
Group variable: ID Number of groups = 17
R-sq: within = 0.0000 Obs per group: min = 10 between = 0.0304 avg = 10.0 overall = 0.0019 max = 10
Wald chi2(3) = 0.27 corr(u_i, X) = 0 (assumed) Prob > chi2 = 0.9649

PROF	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
ECDMGO	.0520463	.1388376	0.37	0.708	.2200703	.324163
SCDMGO	.0434793	.1539535	0.28	0.778	.3452226	.2582641
ENDMGO	.0261092	.155983	0.17	0.867	.2796118	.3318303
_cons	.0301857	.0339282	0.89	0.374	.0363123	.0966837

sigma_u .04514829 sigma_e .36785586
rho .01484 (fraction of variance due to u_i)

. xttest0
Breusch and Pagan Lagrangian multiplier test for random effects
PROF[ID,t] = Xb + u[ID] + e[ID,t]
Estimated results:

	Var	sd = sqrt(Var)
PROF	.1327289	.3643198
e	.1353179	.3678559
u	.0020384	.0451483

Test: Var(u) = 0
chibar2(01) = 0.06 Prob > chibar2 = 0.4028