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HUMAN CAPITAL REPORTING AND MARKET CAPITALIZATION OF PHARMACEUTICAL FIRMS IN NIGERIA

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A B S T R A C T

This study examined the relationship between Human Capital Reporting and Stock Market Performance of Quoted Pharmaceutical Companies in Nigeria for a period of 10 years (2012-2021). Purposive sampling technique was used to collect secondary data for the study from Annual Reports and Accounts of Seven (7) quoted Pharmaceutical companies in the Nigerian Exchange Group (NGX). Ordinary least square and multiple linear regression statistical tools were used to analyze the data with the aid of E-view version 10. The proxies for the independent variable; Human Capital Reporting are; reporting salaries and wages of employees, reporting retirement benefit cost, reporting other employee cost, while market capitalization for the dependent variable Stock Market Performance. The stationarity test shows that the variables are stationary at first difference. The co-integration test proved the presence of a long run relationship. The granger causality test proved no causality between the variables and in testing the hypotheses the independent variables; Reporting salaries and wages of employees, Reporting retirement benefit cost and reporting other employee cost, were statistically significant at 5% level of significance. The study revealed that human capital reporting have positive and statistically significant relationship with the dependent variables; Market capitalization (EPS), The study therefore recommends that adequate reporting and suitable remuneration/ compensation plans should be devised to encourage the acquisition, motivation and retention of valuable, unique, inimitable and well organized human assets who have the greatest potential to drive the performance of pharmaceutical firms in the stock market.

K E Y W O R D S

Human capital reporting. Market capitalization. Pharmaceutical.

Introduction

Human resources are viewed as vital assets of an organization considering their significance in contributing to organizational performance, market competitiveness and long-term sustainability. In the increasingly globalized human society, there is increased competition among firms and this accentuates the need for firms to strategically develop lasting competitive advantage. This is further re-affirmed by the fact that global economies are gradually moving from being industry based to knowledge based and this shift to a knowledge based economy has elevated human resources to an elevated plain since humans are the subject for knowledge creation and advancement (Collinge & Staines, 2009). Human resource entails an individual who possesses skills, talents, knowledge, time, and knowledge with which he adds value to an organization (Osibanjo & Adeniji, 2012).

The importance of human resources emphasizes the increased popularization of human resource management in several organizations. The organizational acts that are targeted towards providing for and coordinating the human resources of a firm is what human resource management entails (Bakator, Petrovic, Boric, & Dalic, 2019). The pertinence of human resource management has become essential to effectively harness the human resource of a firm and this is guided by four major models: encouraging employees to demonstrate a high level of commitment to assigned organizational tasks, ensuring that only quality employees that could offer quality services are employed to enhance the production of quality goods and services, ensuring employee flexibility to effectively embrace organizational changes, and integrating organizational goals into the key policies of a firm to enhance its perceptibility among employees (Osibanjo & Adeniji, 2012). The objective of this paper is to determine the relationship between Human capital reporting and Market capitalization of Pharmaceutical firms in Nigeria.

Theoretical Framework

The fact that companies do not disclose all information about their human capital show that insider information probably exist which means there is a change that the Nigeria Exchange Group is not completely efficient. This is in line with the adaptive market hypothesis which suggests that humans are not completely rational in their behavior and do not always choose the most optimal investment decisions, which changes the conditions on the market. If the market conditions on the Nigeria Exchange Group (NGX) points at information asymmetry and the adaptive market hypothesis, it means that it is possible to identify and find empirically evidence for a pattern that says that prices on stock are partly affected by the human capital in the company, which makes it possible for rational investors to gain abnormal return and outperform the market, for instance by utilizing such pattern as an investment strategy. From the shareholder perspective, voluntary human resource disclosures are based on the agency and signaling theories.

Agency theory

The agency theory of corporate governance was put forward by Alchian and Demsetz (1972) and Jensen and Meckling (1976). They argued that firms can be regarded as a nexus for a set of contracting relationships among individuals, whereas classical economics regards firms as single-product entities with the purpose of maximizing profit. Learmount (2004) suggests that firms can be explained as contracts that are repeatedly negotiated by different individuals wishing to maximize their own profit.

Agency theory explains the behaviour of a firm from the perspectives of various contracts between different parties. Shareholders who contribute funds for a firm to operate are not regarded as the owners of the firms; they are the risk takers of the firm.

Signaling theory

Signaling theory explains how signals management success or failure is communicated to the owner. Signal theory related to information asymmetry. The positive thing in signaling theory is where companies that provide good information will set them apart with companies that do not have "good news" by informing the market about their condition, a signal of good future performance the future provided by companies whose past financial performance is not good will not be trusted by the market (Wolk and Tearney in Dwiyanti, 2010).

Signaling theory is one of the pillar theories in understanding financial management. In general, the signal is interpreted as a signal made by the company (manager) to outside parties (investors). These signals can take the form of various forms, both those that can be directly observed, or which must be studied more deeply to be able to find out. Regardless of the form or type of signals issued, they are all intended to imply something in the hope that the market or external parties will make a change in the valuation of the company.

Human capital Accounting

Human capital or Human Resources Accounting (HRA) was introduced in the accounting literature in the 1960s (Flamholtz, 1985), though support for the idea of accounting for human resource values can be found before this period (Sackmann, Flamholtz & Bullen, 1989; Grojer & Johanson, 1996). Hermanson (1964) published his pioneer work concerning the valuation of human assets, and the term "human resource accounting" was used for the first time by Brummet, Flamholtz and Pyle in 1968. From this period, numerous articles have been published in this area. The American Accounting Association's Committee (1973) on Human Resource Accounting defined HRA as "the process of identifying and measuring data about human resources and communicating this information to interested parties". It provides information about human resource costs and values, serves to facilitate decision-making, and motivates decision-makers to adopt a human resource perspective (Sackmann et al.,1989). Grojer and Johanson (1996) express the management orientation of HRA even more clearly in the assertion that HRA concerns the management of human resources.

Market capitalization and IC disclosure

Research on the influence of disclosure and corporate value has received considerable attention among academia and some notable practitioners in recent times. The signaling theory explains the relationship since it assumed the information contents of IC would change the opinion of the market participants regarding the present as well as the future performance of the business organizations (Gamerschlag, 2013; Ousama, Fatima, & Hafiz, 2011; Sang & Taylor, 2014; Vafaei, Taylor, & Ahmed, 2011).

Recently, Sang and Taylor (2014) examined IC value relevance and its components in the share price of 160 companies listed in the Australian capital market within five years. Data collected from the sampled firm was analyzed using fixed-effects (FEs) Panel regression analysis. The study finds that IC (structural capital and human) and the sampled companies' share prices are significantly related. Also, Gamerschlag (2013) investigates the impact of human capital disclosure on the corporate value of the

130 largest quoted German companies from 2005 to 2009 using content analysis. The study utilizes a disclosure index to estimate HCD. It employs share price and equity return as proxies for market value. Also, it introduces year and industry dummies as control variables. The study surrogates HCD by four items, which include: HCRTOT refers to the amount of human capital disclosed, HCRQC refers to the quantity of "qualification/competence" information disclosed, HCRMC refers to the quantity of "motivation/commitment" information disclosed, while HCRPS refers to the quantity of "personnel" issues (the number of keywords available in the report analyzed) disclosure.

Hypotheses Development

Hermanson et al., (1992), argue that the present accounting systems have failed to recognize humans as assets with the resultant effect of workforce downsizing with the main objective of increasing short-term profits which may be dangerous in the long run and for the general economic welfare of organizations. Despite the uncertainty in the professional and academic mainstream, human capital accounting still occupies a place of accounting thought (Thompson, 1999) and therefore there is the need to broaden the scope of existing knowledge in this area.

Human capital is now an important factor for a national economic growth in the modern economy. Intellectual capital assets has become an important resource for performance due to change from manufacturing-based economy to a knowledge-based economy (Firer and Williams, 2003; Orens et al., 2009). The stock market is an example of knowledge-based enterprise or sector.

Because financial statements exclude valuable assets there has been an increasing gap between market value and book value in companies (Chen et al., 2005). According to Chen et al., (2005), market-to-book values in US companies has increased from slightly above 1 to over 5 between the years 1977 to 2001. This gap is widening in the pharmaceutical companies in Nigeria. More than 90% of corporate market value is missing in financial statements. From the foregoing, the following hypotheses were formulated.

HO_1: There is no significant relationship between reporting of salaries and wages and market capitalization of pharmaceutical firms in Nigeria

HO_2: There is no significant relationship between reporting of retirement benefit cost and market capitalization of pharmaceutical firms in Nigeria.

HO_3: There is no significant relationship between reporting of other employees cost and market capitalization of pharmaceutical firms in Nigeria.

Methodology

To investigate human capital reporting and its impact on the market value of the company, a purposive sampling method were employed to collect data from seven (7) Pharmaceutical companies listed on the Nigeria Exchange Group (NGX). (Independent) variables examined were salaries and wages, retirement benefit cost, other employees cost and its relationship to the (dependent) variable, market capitalization of the company.

Annual reports and all required data for seven companies in the Nigeria Exchange Group were utilized from 2012 - 2021.

This work used the ordinary least square, multiple regression analysis on E-view 10 to determine the relationship between the independent variables and the dependent variables.

Model Specification

Using dependent variables; Market Capitalization and three independent variables; reporting salaries and wages of employees, reporting retirement benefit cost, reporting other employee cost, a model was formulated thus; Model specification showing the functional relationship is expressed as follows:

EPS= ∫(RSWE, RRBC, ROEC)……...1

Expanding the functional relationship in mathematical terms:

$$EPS = ß_o + ß_1RSWE + ß_2RRBC + ß_3ROEC \quad \ldots\ldots\ldots\ldots\ldots\ldots 2$$

Adding error terms to the econometric form:

$$EPS = ß_o + ß_1RSWE + ß_2RRBC + ß_3ROEC + \mu \ldots\ldots\ldots\ldots 3$$

Where:

EPS = Earnings per share

RSWE = Reporting Salaries and Wages of Employees

RRBC = Reporting Retirement Benefit Cost

ROEC= Reporting other Employees Cost

β0 = Intercept

β1-3 = Coefficient of the independent variables

μ = Error Term

Results and Discussions

Regression Test

Ordinary Least Square was employed to measure the relationship between Human Capital Reporting and Stock Market Performance of Quoted Pharmaceutical Companies in Nigeria. The results obtained are presented in the tables below.

Table 1: $EPS = ß_o + ß_1RSWE + ß_2RRBC + ß_3ROEC + \mu$

Dependent Variable: EPS
Method: Least Squares
Date: 04/29/23 Time: 21:53
Sample: 1 70
Included observations: 67

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RSWE	48.700008	69.900008	0.695793	0.0051
RRBC	13.500007	40.800008	3.299422	0.0038
ROEC	30.000008	27.100008	1.126045	0.0075

R-squared	0.327216	Mean dependent var	8.558636
Adjusted R-squared	0.466923	S.D. dependent var	5.081559
S.E. of regression	6.154610	Akaike info criterion	6.598404
Sum squared resid	719.7053	Schwarz criterion	6.747182
Log likelihood	-69.58244	Hannan-Quinn criter.	6.633451
Durbin-Watson stat	1.226672		

Source: Extracts from E-view print out Version 10 and author's compilation

ß Coefficient

The result shows that the coefficient of RSWE, RRBC and ROEC all have a positive relationship with EPS to the extent that a percentage increase or a unit change in RSWE, RRBC, ROEC, RTA and RTL will result to a 49%, 14%, 30%, increase in EPS of the seven Quoted Pharmaceutical Companies in Nigeria for the period under investigation.

Coefficient of Determination (R^2)

This shows the value of changes in the dependent variables attributable to changes in the explanatory variables. R^2 is the ratio that explains the variation in the model. From the result, 33% and 47% of the total variable of EPS can be explained by the independent variables; RSWE, RRBC and ROEC in a multiple relationship. The remaining the 67 and 53 of the total variation were not fully included in the model but have been taken care of by the error term.

The variable representing human capital is the most interesting result from the multiple regression analysis. The results from this study show that there is empirical support between human capital and market capitalization**.** The result shows that the coefficient of RSWE, RRBC and ROEC all have a positive relationship with EPS (proxy for market capitalization) to the extent that a percentage increase or a unit change in RSWE, RRBC, ROEC, RTA and RTL result to a 49%, 14%, 30%, increase in EPS of the seven Quoted Pharmaceutical Companies in Nigeria for the period under investigation.

The Pooled OLS regression was conducted to examine the influence of major determinants of human capital reporting on market capitalization of listed pharmaceutical companies in Nigeria. Each econometric methodology was used to estimate the pooled OLS for the individual firms and then collectively.

Looking at the results of this study the null hypotheses of $H0_1$, $H0_2$ and $H0_3$, are rejected and the alternative hypotheses are accepted. It means that the study provides empirical evidence for a statistical significant relationship between reporting human capital costs and stock market performance.. The coefficient for RSWE, RRBC, and ROEC are 48.7, 13.5 and 30.0 which shows that the human capital is positively connected to market capitalization . It implies that an increase in human capital tends to lead to an increase in stock market performance, and a decrease in human capital tends to provide a decreased in stock market value. This result corroborates the findings of other studies that human capital reporting has a positive effect on market capitalization. That is, the difference between the market and book values can be attributed to human resources, which agrees with the study of Husin et al. (2011). This is also in line with Zambrano et al. (2018) who sought to analyze the impact of investing in intangible resources, specifically training, and advertising, on the market value of companies. The study revealed that both the investments in training and advertising separately have a positive relationship with the ratio of book value/market value of firms in the coming year.

The cumulative benefits derived from training are added in the form of larger total assets in the long term, and this is seen by investors as an indication of future growth. Investors tend to invest in the shares of companies that have an increase in market value of shares. Again, the contribution of Wang and Chang (2005) and Chen et al. (2005) provide a support for our results. According to them, the human capital is the basis for the intellectual capital as well as the value creation. They opined that the

knowledge, the skills and the experiences of the employees improve managerial strategies and make creation to strengthen the relationships with customers.

Conclusion

In accordance with the research findings of the study, we can therefore conclude that Human Capital Reporting has a relationship with the market capitalization of Pharmaceutical Companies in Nigeria. From the analysis carried out, reporting salaries and wages of employees, reporting retirement benefit cost, reporting other employee cost were significant in explaining the Stock Market Performance of Pharmaceutical Companies in Nigeria.

Recommendations

1. Adequate reporting and suitable remuneration/ compensation plans should be devised to encourage the acquisition, motivation and retention of valuable, unique, inimitable and well organized human assets who have the greatest potential to drive performance of pharmaceutical firms in the stock market.
2. Despite complexities reportedly associated with the application of human capital reporting in the financial reporting environment, the International Accounting Standards Board as a global standard-setter should build on and devise means to improve on the already existing platforms of standards like IAS 38 (Intangible Assets) so that new standards which directly and adequately address HC issues in the Financial Reporting setting can come to the fore.

Contribution to knowledge

This study contributes to the existing body of knowledge as follows:
Reporting salaries and wages of employees, Reporting retirement benefit cost and reporting other employee cost, enhances market capitalization of pharmaceutical companies in Nigeria.

References

1. Abeysekera, I. (2013). A template for integrated reporting. Journal of Intellectual Capital, 14(2), 227-245.
2. Abdolmohammadi, M. (2005). Intellectual capital disclosure and market capitalization. Journal of Intellectual Capital, 6(3), 397-416.
3. Adelowotan, M. O., Cronjé, C. J., & Wingard, C. H. (2013). The significance of human capital disclosures in corporate annual reports of top south african listed companies: Evidence from the financial directors and managers. African Journal of Business Management, 7(34), 3248-3258.
4. Adetokunbo, A. M. & Edioye, O. P. (2021). Response of economic growth to the dynamics of service sector in Nigeria. Future Business Journal, 6(1), 1-10.
5. Afolabi, S. O. (2014). Human Resources Accounting and Disclosure in Financial Statement: Literature Review. Research Journal of Finance and Accounting, 5(22), 64-75.
6. American Accounting Association (1973). Report of the committee on human resource accounting. The Accounting Review, 48(Supplement), 169–185.
7. Armstrong, C. S., Barth, M. E., Jagolinzer, A. D., and Riedl, E. J. (2010). Market reaction to the adoption of ifrs in europe. The Accounting Review, 85(1):31–61.

8. Arvidsson, S. (2011). Disclosure of non-financial information in the annual report; A management-team perspective. Journal of Intellectual Capital, 12(2), 277-300.
9. Bassey, B. E. & Tapang, A. T. (2012). Expensed human resources cost and its influence on corporate productivity: A study of selected companies in Nigeria. Global Journal of Management and Business Research, 12(5), 3-8.
10. Bassi, L., Creelman, D., & Lambert, A. (2015). Advancing the HR Profession: Consistent Standards in Reporting Sustainable Human Capital Outcomes. People & Strategy, 38(2), 71-75.
11. Bassi, L., Harrison, P., Ludwig, J. & McMurrer, D. (2004). The Impact of U.S. Firms´ Investments in Human Capital on Stock Prices. http://www.mtdiabloastd.org/Resources/Documents/Meetings/2010 07%20Gina%20Jesse%20Impact%20on%20Stock%202004%20research-Bassi.pdf. [Retrieved 2015-06-04]
12. Ballester, M., Livnat, J., and Sinha, N. (2002). Labor costs and investments in human capital. Journal of Accounting, Auditing & Finance, 17(4):351–373.
13. Banker, R. D., Huang, R., Natarajan, R., and Zhao, S. (2019). Market valuation of intangible asset: Evidence on sg&a expenditure. The Accounting Review, 94(6):61–90.
14. Boedker, C., Mouristan, J. & Guthrie, J. (2008). Enhanced business reporting: international trends and possible policy directions. Journal of Human Resource Costing & Accounting, 12(1), 14.
15. Bontis, N., Keow, W.C. & Richardson, S. (2000). Intellectual capital and business performance in Malaysian industries. Journal of Intellectual Capital, 1(1), 85-100.
16. Bontis, N. (2001). Assessing knowledge assets: a review of the models used to measure intellectual capital. International Journal of Management Reviews, 3(1), 41-60.
17. Chen, M-C., Cheng, S-J. & Hwang, Y. (2005). An empirical investigation of the relationship between intellectual capital and firms´ market value and financial performance. Journal of Intellectual Capital, 6(2), 159-176.
18. Chen, N.F., Roll, R. & Ross, S.A. (1986). Economic Forces and the Stock Market. Journal of Business, 59(3), 383-403.
19. Collins, D., Edward, M. & Weiss, I. (1997). Changes in the value-relevance of earnings and book values over the past forty years. Journal of Accounting and Economics, 24, 39-67.
20. Cormier, D., Aerts, W., Ledoux, M-J. & Magnan, M. (2009). Attributes of Social and Human Capital Disclosure and Information Asymmetry between Managers and Investors. Canadian Journal of Administrative Sciences, 26(1), 71-88.
21. Cornell, B. (1999). The Equity Risk Premium: The Long-Run Future of the Stock Market. 1st edition. New York: Wiley
22. Edmans, A. (2011). Does the stock market fully value intangibles? employee satisfaction and equity prices. Journal of Financial Economics, 101(3):621–640.
23. Edom, G. O., Inah, E. U. & Adanma, E. S. (2015). The impact of human resource accounting on the profitability of a firm: Empirical Evidence from Access Bank of Nigeria PLC. European Journal of Accounting, Auditing and Finance Research, 3 (7): 76-94.
24. Edvinsson, L., & Malone, M. S. (1997). "Intellectual Capital - The Proven Way to Establish Your Company's Real Value by Measuring its Hidden Brainpower". London: Piatkus Publishers Ltd

25. Enofe, A. O., Mgbame, C. & Otuya, S. (2013). Human resource accounting disclosure in Nigerian quoted Firms. Research Journal of Finance and Account, 4 (13), 222-1697.
26. Enache, L. and Srivastava, A. (2017). Should intangible investments be reported separately or commingled with operating expenses? new evidence. Management Science, 64(7):3446–3468.
27. Hansson, B. (2004). Human Capital and Stock Returns: Is the Value Premium an Approximation for Return on Human Capital? Journal of Business Finance & Accounting, 31(3-4), 333-357.
28. Haugen, R.A. & Baker, N.L. (1991). The efficient market inefficiency of capitalization– weighted stock portfolios. The Journal of Portfolio Management, 17(3), 35-40.
29. Human Capital Investment and Reporting Council. (2021). The State of Human Capital Disclosure - Mid 2021. An Annual Publication of the Human Capital Investment and Reporting Council, 1-15.
30. Huang. C. C., Luther, R., Tayles, M., & Haniffa, R. (2013). Human Capital Disclosures in Developing Countries: Figureheads and Value Creators. Journal of Applied Accounting Research, 14(2), 180-196.
31. Hörisch, J., Freeman, R-E., & Schaltegger, S. (2014). Applying Stakeholder Theory in Sustainability Management: Links, Similarities, Dissimilarities, and a Conceptual Framework. Organization & Environment, 27(4), 328-346.
32. Huselid, M.A. (1995). The Impact of Human Resource Management Practices On Turnover, Productivity, and Corporate Financial Performance. The Academy of Management Journal, 38(3), 635-672.
33. Khanna, A., Papadavid, P., Tyson, J. & te Velde, W. (2016) The role of services in economic transformation with an application to Kenya. Supporting Economic Transformation (SET), ODI and UK aid, 1-5.
34. Kiker, B.F. (1966). The Historical Roots of the Concept Human Capital. Journal of Political Economy, 74(5), 481-499.
35. Kothari, S.P. (2001). Capital markets research in accounting. Journal of Accounting and Economics, 31, 105-231.
36. Lajili, K. & Zeghal, D. (2006). Market performance impacts of human capital disclosures. Journal of Accounting and Public Policy, 25(2), 171–194.
37. Samudhrama, A., Stewart, E., Wickramanayake, J. & Sinnakkannu, J. (2014). Value relevance of human capital based disclosures: Moderating impacts of labour productivity, investor sentiment, analyst coverage and audit quality. Advances in International Accounting, 30, (2014), 338–353.
38. Saunders, M., Lewis, P. & Thornhill, A. (2009). Research Methods for Business Students. 5th edition. Harlow: Financial Times Prentice Hall.
39. Shiller, R.J. (1981). Do Stock Prices Move Too Much to be Justified by Subsequent Changes in Dividends? American Economic Review, 71(3), 421-436.
40. Spiess, D.K. & Affleck-Graves, J. (1995). Underperformance in long-run stock returns following seasoned equity offerings. Journal of Financial Economics, 38(3), 243 267.
41. Syed, A. M. (2009). Human resource accounting disclosure of Bangladeshi companies and its association corporate characteristics. BRAC University Journal, (1) 1, 35-43.
42. Valenti, A. & Horner, S. (2019). The Human Capital of Boards of Directors and Innovation: An Empirical Examination of the Pharmaceutical. International Journal of Innovation Management, 24(6), 2019.

43. Van Rooij M, Lusardi A, Alessie R (2011). “Financial literacy and stock market participation”, Journal of Financial Economics 101(2):449472.
44. Winful EC, Kumi-Koranteng P, Owusu-Mensah M (2013). “Investment Education” on Stock Market Performance: Case of GSE, Journal of Contemporary Management, ID: 1929-0128-2013-04-29-17
45. Woodhall M (2001). Human capital: educational aspects, International Encyclopedia of the Social and Behavioral Sciences.
46. Wright, P.M., Dunford, B.B. & Snell, S.A. (2001). Human resources and the resource based view of the firm. Journal of Management, 27(6), 701-721
47. Yartey CA (2008). Determinants of Stock Market Development in Emerging Economies: Is South Africa Different? IMF Working PaperWP/08/32 Washington, International Monetary Fund.
48. Youndt MA, Subramaniam M, Snell SA (2004). Intellectual Capital Profiles: An Examination of Investments and Returns. Journal of Management Studies 41(2):335-361.