The Relationship of the Balanced Scorecard Perspectives on Business Performance of Private Pathology Laboratories in Nigeria

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ABSTRACT

The objectives of this research work address the relationship between the financial, the customer, the internal business process, and the learning and growth perspectives respectively on business performance. The approach that was employed in satisfying the objectives of this research was to first and foremost come up with hypotheses, directed at testing to see if there is any association between the perspectives of the balanced scorecard and the business performance within private pathology practice. A quantitative method using a structured questionnaire was adopted for data collection from a cross section of private pathology laboratories operating within Nigeria. The feedback from respondents were analysed statistically using the linear regression analysis model. The results obtained from this analysis revealed the standpoint of the financials, the customers, the internal business processes, and the learning and growth perspectives of the balanced scorecard in relation to the business performance in a developing economy. The study showed that whilst the financial and the internal business process perspectives have a direct relationship with business performance, there exists an inverse association between the customer and the learning and growth perspectives on business performance of private pathology laboratories in Nigeria.

Keywords: Balanced scorecard; Business Performance; Pathology laboratory

COMMENTARY

The balanced scorecard (BSC) as a performance management tool, projects the performance objectives and measures of an organization from the standpoint of strategy. Considering the research work of Saraiva [1], it is stated that the balanced scorecard is a global performance management tool. In England for instance, the BSC is used in the evaluation of small and medium sized enterprises. It is a preferred performance management tool over the last two decades and has been adopted by most companies because of its robustness and its ability to communicate organizational strategy as well as measure business performance. Also, most organizations do have intangible assets that impacts positively on their bottom line but demonstrating the how could be difficult. Organizations with lots of these intangible assets are more likely to adopt the balanced scorecard as a preferred management tool in measuring performance [2]. From the studies of Etim and Agara [3], the business strategy of a firm which is largely anchored on the balanced scorecard can have a direct influence on its business performance. Whilst organizational strategy is thought to have a great impact on the performance of a business, the question remains as to what strategic tool is best suited for a positive outcome. According to Syaripudin [4], one of the advantages of the balanced scorecard is in the translation of the strategy of an organization into operational objectives. The objective of this research work is to clarify the relationship between the BSC and business performance within a developing economy [5].

RESEARCH DESIGN

The use of survey research design is considered most appropriate for this research study. Primary data was collected by the administration of structured self-completion survey questionnaire. This involved designing a questionnaire whose content was in line with the research objective. The basis for

selecting this research design is that it provides the needed control on the type of questions asked. The research questions were tailored to address the research objectives, and this streamlined the responses from participants as well as gave validity to the questions. Two variables were considered for the study: the independent variables: Financials, Customers, Internal business processes, People and the dependent variable: Client patronage. Two distinct questionnaires were designed to collect data for both the independent and dependent variables respectively. The first questionnaire was tailored towards the independent variables; had 27 questions written with 5 likert scale responses. The questions were split into sections A to F with five questions each for section A to E; section F has two questions only. Sections A and F are general questions and Sections B to E are tailored to address the Financials, Customers, Internal business processes and People perspective respectively. With exception to section A and F, feedback from each section was collated an analyzed from respondents with the average score taken.

The second questionnaire addressed the dependent variable where the average data of client patronage over a three year period (2015 to 2017) was obtained. This questionnaire was solely completed by the managing directors or owners of the medical laboratory facilities that were randomly selected. The time frame for data collection using both questionnaires was a month period.

RESEARCH METHOD

The method utilized for this research paper is linear regression analysis, where the four perspectives of the balanced scorecard: Financials, Customers, Processes and People being the independent variables were correlated against the dependent variable which is client patronage (as a non-financial measure of business performance) over a three year period (2015 to 2017). Though, this research work deals on assessing the relationship of the balanced scorecard on the business performance of organizations within the private sector of Nigeria, the geographical area of focus for the population is the federal capital territory (F.C.T) of Nigeria which is Abuja. The F.C.T is a representation of central Nigeria [6]. The sampling strategy adopted is the probability sampling design, with a focus on the use of the systematic random sampling design. Since our focus is on the private sector of laboratory facilities in Abuja, a list of registered private laboratory facilities was obtained from the Guild of Medical Laboratory Directors of Nigeria (GMLD), Abuja branch. This is a professional body that regulates private medical laboratory practice in Nigeria. The number of Medical Laboratory facilities registered with the GMLD and termed bona fide members in Abuja is sixty eight. The proposed number of laboratory facilities that was considered for this research project is 10% of the total number of registered laboratories with GMLD in Abuja and was obtained by the inclusion of laboratories in the 9th position from the list of sixty eight laboratories registered with GMLD; this comes to seven Medical Laboratory facilities. Data was collected from the seven private medical laboratory facilities and a total of fifty four structured self-completion survey questionnaires were physically administered by the author. This was to combat the issue of ''respondent of interest''. All 54 questionnaires were fully completed because the researcher closely followed up on all respondents and incentivized the data collection process with light refreshment. The collected sample data was utilized as inferential evidence in taking a decision about the population [7].

RESULTS

The analysis of the collected data was accomplished using the statistical package for social science (SPSS). Using the linear regression analysis, the four independent variables: financials, customers, internal business processes, learning and growth perspectives respectively were each compared with business performance of the laboratories being the dependent variable using client patronage as a metric.

The ANOVA Table 1 below shows if the model is significant. If the statistical significance of the $p < 0.05$, then the model is significant. In this case, Table 1 shows the ANOVA test with a statistical significance of .000. This indicates that the model is significant and the combination of the independent variables (Predictors) significantly predicts the dependent variable with the $p < 0.05$.

Table 1: ANOVAa

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	65879.929	4	16469.982	9.780	.000b
	Residual	82518.813	49	1684.057		
	Total	148398.742	53			
a. Dependent Variable: Percentage Client Patronage Change.						
b. Predictors: (Constant), People Perspective, Process Perspective, Financial Perspective, Customer Perspective.						

The results of the linear regression analysis in Table 2 show that the business performance of private pathology laboratories in Nigeria has a strong correlation with the financial perspective of the balanced scorecard. The t-test for the financial perspective shows a positive statistical significance with a value of $p < 0.001$

Table 2: The relationship of the balanced scorecard perspectives and business performance.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-103.964	58.365		-1.781	1
	Financial Perspective	36.610	7.721	.654	4.741	.000
	Customer Perspective	-19.732	8.988	-.323	-2.195	.033
	Process Perspective	16.783	7.119	.291	2.357	.022
	People Perspective	-3.925	7.205	-.066	-.545	.588

As depicted in the regression analysis in Table 2, the business performance of private pathology laboratories in Nigeria and the customer perspective of the balanced scorecard indicates that there is a statistically significant correlation with a $p < 0.05$.

The statistical testing carried out using the regression analysis shown in Table 2 reveals that the internal business process perspective of the balanced scorecard holds a statistically significant correlation with the business performance of private pathology laboratories in Nigeria, with a $p < 0.05$.

The linear regression analysis presented in Table 2 shows that there is no statistically significant relationship between the business performance of private pathology laboratories in Nigeria and the learning and growth perspective of the balanced scorecard has a $p > 0.05$.

DISCUSSION

The motivation of this management research project is on the balanced scorecard and how it affects the business performance of private pathology laboratories in Nigeria. From the study carried out by Etim et al. [3], it was established that much research work has not been performed on the relationship of the balanced scorecard and the performance of business in developing countries. This identified research gap aroused the interest of investigating the balanced scorecard and business performance within a developing economy such as Nigeria. This research in clear terms provides empirical evidence on the association between the perspectives of the BSC and business performance of private laboratories, inclusive of the strength and direction of existing association.

Firstly, it was demonstrated that there is a strong association between the business performance of private laboratories and the financial components of the business, with a statistical significance of $p < 0.05$. This shows that an effort inputted into the financial measures would directly impact positively on the business performance. From the analysis of the results obtained, the internal business process perspective demonstrates similar positive correlation with business performance. This connects with the submission of Cho et al. [8] which states that the balanced scorecard is an effective tool to evaluate the internal business processes of an organisation in making strategic business decisions.

According to Williams et al. [9], the relationship between the customer dimension and business performance was a positive correlation. On the contrary, the outcome of the result analysis showed that the relationship is in the opposite direction. Surprisingly, there is a limitation to the level of influence an organization have over the purchasing behaviour of the consumers of its product and services. The formulation and implementation of strategies based on outdated perception of the customer needs, constantly changing business environment, lack of research and developmental activities aimed at capturing the peculiarities of developing economies may be some of the reasons behind an inversely proportionate outcome of the customer dimension on business performance.

Considering the relationship between the learning and growth perspective of the balanced scorecard and business performance, this study shows that the correlation is very weak, with an inverse association between both variables. The $p > 0.05$. Making inference from previous research studies, a happy employee creates a happy customer, thus increasing the possibility of repeat business [10]. Happy employees are a product of employee satisfaction. It is paramount to state here that employee satisfaction has everything to do with an effective and fair human resource management system, which affects the attitude of the employee towards the organization [11]. The outcome of this study could serve as a basis for comparing the relationship between the balanced scorecard and business performance both in the private and public sector.

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