EFFECTS OF IMPROVED FUNDING OF POLYTECHNIC EDUCATION IN NIGERIA: THE BALANCE SHEET DYNAMICS AND VALUE CREATION MODELS APPRAISAL

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Abstract

The paper examined the improvement of Government funding activities in the Polytechnic sub-sector of Nigeria's tertiary education from 2008 to date against the backdrop of paltry funding of the past. Government implemented the CONTISS 15, the 53.37 % and 56 % salary upgrade and 7 % academic allowance for Polytechnics in the year 2009 and 2010 respectively. The Tertiary Education Trust Fund (TETF) also commenced interventions in sponsorships of conferences and staff graduate programmes for lecturers in 2008. The funding improvement was analyzed with the Balance Sheet Dynamics Model of Value creation. The paper argued that these developments have a likelihood of accelerating the process of value creation through the four asset components of

the Balance Sheet Dynamics Model of value creation. It is recommended that Governments should intensify efforts in funding the sub-sector by extending the period of TETF interventions, offering University salary scale to Ph.D holders in the Polytechnics and striving to reach the 26 % education budget prescribed by UNESCO. Managers of education policies should equally engage the intangible value drivers to consolidate the gains of these policies on Polytechnic Education outcomes in the Country.

Introduction

Education is a whole gamut of activities by which an individual is taught, learns and is trained in order to acquire skill in certain areas of life endeavors. Educational processes are normally grouped into primary, secondary and tertiary stages (Ojatta, 2006).

In Nigeria, the bane of educational enterprise has been the dwindling quality of teaching and learning outcomes. The quality of educational process outcomes has plummeted in recent times at all levels. There are cries over mass failure. The failure rate is high in the examinations conducted by both the National Examinations Council (NECO) and the West African Examination Council (WAEC). Consequently, many of the secondary school leavers with beautiful O'level results are no longer fit for both the tertiary education and the job market (Eneh, 2010, 2009, 2008; Eneh and Owoh, 2009; Eneh and Eneh, 2009, 2008 a,b)

The development of the requisite middle level man power to transform Nigeria is placed at the very doorsteps of the polytechnics, monotechnics and their equivalents. According to Eze (2010), whereas education is the bed rock of all forms of economic developments, technical/technological education remains the only solid base for any technological development.

Dike (2009) observed that even though technical and vocational education (TVE) has been an integral part of national development strategies in many societies, Nigerian leaders have not given this aspect of education the attention it deserves.

Despite the vital position this sub-sector occupies in Nigeria, a lot of problems have beguiled the system. Even the university system has suffered a similar fate, as no Nigerian University made it in the ranking of top 500 world-class universities. The Nigerian tertiary education system has indeed suffered unimaginable neglect in terms of funding.

Another key problem in the sector is policy somersaults of the Federal Government. Eneh (2011) observed that Nigeria's underdevelopment is more of poor implementation than lack of development visions and programmes. Policy summersault and development projects abandonment are common. In 2006, some Federal Polytechnics were to be taken over by selected Federal Universities. This did not, however, materialize. Another policy was that of allowing polytechnics to award Bachelor of Technology degrees. This, too, is yet to be implemented. Again, the policy on conversion of Kaduna Polytechnic and Yaba College of Technology to universities is another mirage.

Poor infrastructure, poor manpower, poor funding, poor remunerations and lack of any viable staff development programmes had prevailed until lately. Abandoned projects abounded on polytechnic campuses. Outdated equipment and laboratories also characterized majority of Nigerian polytechnics. Many laboratory and workshop equipment are old, dysfunctional, outdated and yawning for replacement. Epileptic electricity power supply, lack of stand-by electric power generating sets and high cost of fuel to operate electric power generating sets all militate against meaningful research and development on polytechnic

campuses. All these have demotivating influence on activities of these institutions.

To worsen the scenario is the problem of pay disparity between Polytechnic and the University employees which has been attributed to Government poor funding of the education sector. From Table 1.1, it is clear that the Federal Government of Nigeria has at no time met the 26 % education funding benchmark recommended by the United Nations Educational, Scientific and Cultural Organisation (UNESCO). The highest Government ever went within the nine years under study was 1.3% in 2000 and 1.2% in 2002, which are nothing to write home about.

Out of the paltry allocations to the education sector between 1996 and 2002, the polytechnic sub-sector received an average of 17.8 %, as against 45.3 % for Universities, 9.5 % for Colleges of Education, 14.5 % for Secondary Schools and 11.6 % for Primary Schools, as indicated in Table 1.2. Fig. 1.1 also presents two curves. The upper one represents Federal Governments expenditure between 1997 and 2007, while the lower shows education portion of the budgets for corresponding periods. Surprisingly, the graph indicates that the government spent less on education in the years that her expenditure is highest. This means that education expenditures are inversely proportional to overall government expenditure. This indeed is a portrayal of the anomaly that has existed in funding of this critical sector in Nigeria.

Table 1.1: ***The Total Federal GDP and Education Budget (2000-2008)***

Year	Total GDP	Education Budget	Percentages
2000	4,582,127.3	57,956.64	1.3%
2001	4,725,086.0	24,522.27	0.5%
2002	6,912,381.3	80,530.88	1.2%
2003	8,487,031.6	64,782.15	0.8%
2004	11,411,066.9	76,524.65	0.7%
2005	14,572,239.1	82,795.06	0.6%
2006	18,564,594.7	87,294.56	0.4%
2007	20,657,317.7	107,529.39	0.5%
2008	23,842,170.7	164,000.00	0.7%

Source: Computed from CBN Statistical Bulletin

Table 1.2: ***Federal Government Expenditure (%) by Education levels (1996-2002)***

School	1996	1997	1998	1999	2000	2001	2002	Ave.
Universities	52.5	44.6	39.4	39.9	49.2	39.6	52.2	45.3
Polytechnics	16.2	23.2	17.0	18.5	17.0	16.6	16.0	17.8
Colleges of Education	11.2	11.1	12.0	10.6	9.6	11.9	9.7	9.5
Secondary schools	10.4	11.3	14.6	18.7	15.3	15.5	15.6	14.5
Primary schools	9.7	9.8	16.9	12.2	8.9	16.4	7.5	11.6

Source: Federal Government Annual Budget (Various Years)

Whereas the Universities, Colleges of Education, Nomadic education, Adult and Non-formal Education, Primary and Secondary Education sub-units are run by Commissions, the Polytechnics are run by a Board, the National Board for Technical Education (NBTE), (Moja, 2000). In the area of curriculum development, some NBTE syllabi in use in Nigerian Polytechnics today were produced in 1991 – over 20 years ago. They yawn for updating and lack in relevance. Consequently, there is low morale, low productivity, and brain drain among the Nigerian polytechnic staff and poor quality academic output in the sub-sector.

However, there seems to be a little light at the end of the tunnel in terms of increased funding. The recent increase in budget for the education sector is gradually having a bearing on the Polytechnic sub-sector. Funds are being provided through Tertiary Education Trust Fund (TETF) for infrastructural upgrading, staff development (higher degrees), and conference attendances for both State and Federal Polytechnics. CONTISS 15 was implemented for the Polytechnic from July 2009. The 53.7 % and 56 % salary increase for federal civil servants was also implemented in Polytechnics, especially the Federal Government-owned ones.

Several studies on funding of education in Nigeria have been carried out (Adewole, 2006; Babalola, 2001). Whereas Adegboyega (2002) and Babalola (2001) focused on funding of University education in Nigeria, none of the studies has yet assessed the funding of Polytechnic education vis-à-vis academic value delivery in Nigeria. In the light of these facts, this study was designed to fill this knowledge gap. Its main objective was to use the Balance Sheet Dynamics Model of value creation to project the likely impact of these recent developments on academic value delivery in the Polytechnic system in Nigeria.

Conceptualizing Customer Value Creation

Value, in itself, is the worth of a thing, a product or an idea. To the customer, value is the worth of a product or service mostly in monetary terms. No one parts with hard-earned money, if the product or service to be paid for is not at least of equal value with the money being demanded. Generally, the measurement of the value of a product or service is in financial terms.

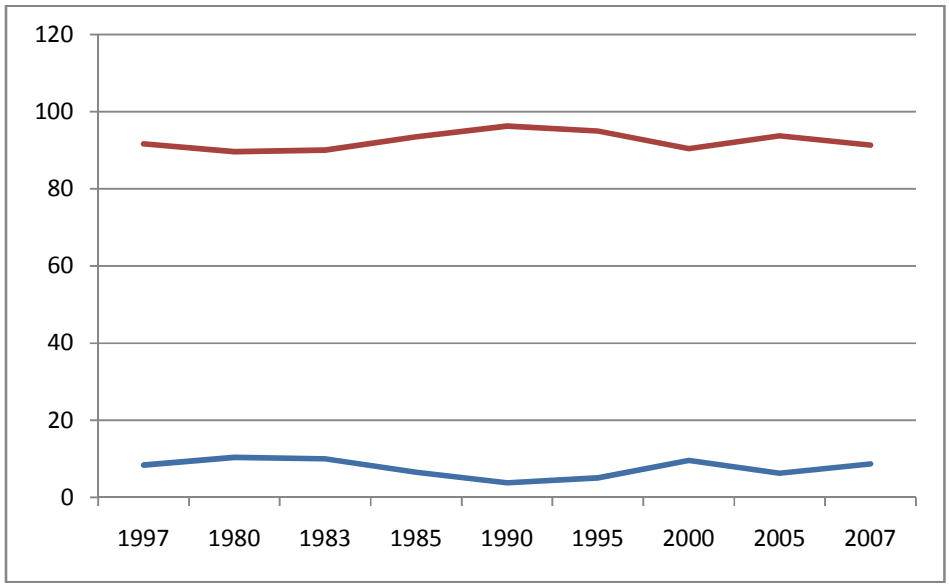

Fig. 1.1: ***Profile of the Federal Government budget and Spending on Education in Nigeria (1977-2007)***
Source: Annual Reports and Statements of Account, 1997-2007 (CBN, Abuja).

Value creation is the process of carrying out activities that increase value of goods or services to the consumers, the employees and the investors. Smith (2007) observed that value creation for customers is a critical task for marketers. One way a marketer can distinguish himself in the market place is by engaging in various options of value creation. Successful organizations world-over do not create products or services, but values.

Value creation and delivery is not targeted at the customer alone. O'Malley (1998) submitted that businesses that must survive are duty-bound not only to create value for customers, but also for the employees, investors and suppliers as well. This means sustainable value management must be a chain and all-encompassing. Value creation, therefore, is the fundamental objective of any organization, whether profit or non-profit oriented. It is all about innovation delivery of changed offerings or values that match the changing needs of customers, employees and investors (Mitsuru, 2000; Moller, 2006).

Elements of Value Creation

The process of distilling knowledge and skills has been evolutionary in nature. Developments have led to shift in emphasis from the tangible to intangible drivers of value. The literature identifies innovation, ideas people and brand as the key elements of value creation. Intangible drivers, such as technology, innovation, intellectual property, alliance, management capability, employee relations, customer relations, community relations and brand value have been highlighted (Book Rags, 2011). Value drivers are organizations-specific. In a product marketing company, technology and innovation go a long way in positively transforming the quality of the product. Customers that value consistency in quality of a product are likely to have more positive attitude towards the organization that owns that brand. In a nutshell, any tangible or intangible factor that can be manipulated to offer the customer higher values in the market place is a value driver. In the polytechnic system, the employees and the processes constitute factors critical to positive learning outcomes.

The Balance Sheet Dynamics Model of Value Creation

Value creation involves a lot of dynamism. To the customer, the actors in value creation or depletion are the investors, employees and processes. These are interactive, iterative and interdependent elements quite critical to the model. These players function together, modulating one another in the process. A tilt on one driver will be balanced by the response from others. The dynamism within the system is such that when customer perception of a product or service value is positive, it leads to customer retention, which in turn, leads to revenue.

On the contrary, when customer value perception is negative, this will lead to loss of patronage, decline in revenue, and disappearance of profits and reduced expenditure on staff training, compensation and research and development (R&D) investments, as shown in Fig. 1.2. Where this occurs, it will further erode customer value, which in the long run, will lead to the closure of such business. The balance sheet dynamics is a mapping of organization's key assets comprising of four "strategic balance sheets", which focus on the key players. The number of "strategic balance sheets" and their contents are company-specific as mentioned earlier on. From this model (see Fig. 1.3), one can see that each of these boxes represent a "strategic balance sheet" containing assets to the organization. The first two sheets indicate employee and process assets. Businesses can create value only when they begin to see the employees and process elements as assets, and not items of expenditure.

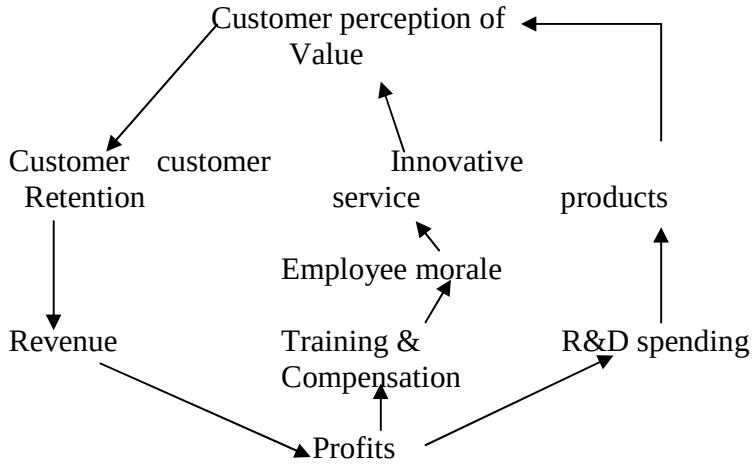

Fig. 1.2: ***When Customers Defect***
Source: O'Malley (1998)

An adequately trained, remunerated and motivated employee that uses up-to-date tools will be a miracle in customer value creation. The values, when properly perceived, will increase loyalty and push up the revenue of the business. A wise investor will not give out all profits, but reinvests some of it in employee and process assets. This ultimately leads to continuous growth and profitability.

To relate the model of value creation to Nigeria's Polytechnics, we shall take a look at recent changes in the Polytechnic sector and "fit" them into an adaptation of the Balance Sheet Dynamics model. One way of building an understanding of these dynamics is to identify the key capabilities, resources and relationships that are of critical value creation in the Polytechnic sub-sector. The Federal Government through National Board for

Technical Education (NBTE) seems to have arrived this point as far as technical/technological education is concerned. We now take a close look at the "strategic balance sheets" in the adapted model (Fig. 1.4).

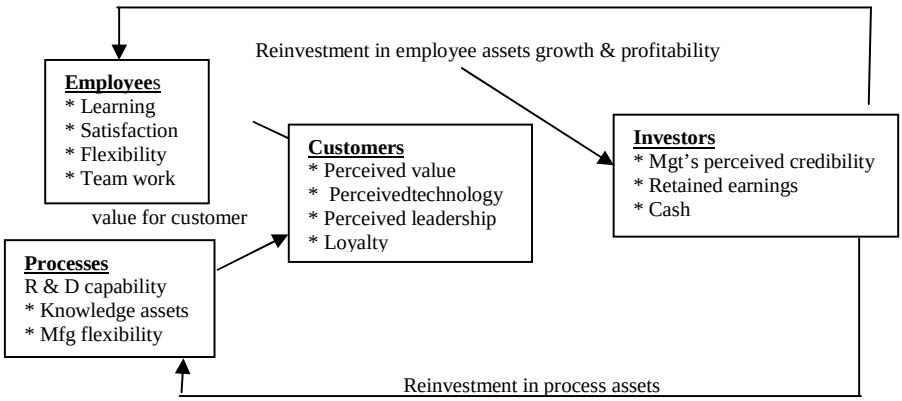

Fig. 1.3: ***Balance Sheet Dynamics***
Source: O'Malley (1998)

The Employee Assets

In a period of five years (2008-2012), the academic staff of Nigerian Polytechnics has had a lot of privileges capable of keeping them in top form for value delivery. Lecturers can now go for graduate degrees anywhere in the world with full sponsorship from TETF. The Agency also has an annual budget for conference sponsorships anywhere in the world. The CONTISS 15 implementation enables career progression to level 15 for Polytechnics employees. It placed academic and non-academic staff on equal pay pedestal. Reversing this has also created a 7 % allowance, which acts as a further impetus for value creation. Government also approved the 53.37 % and 56 % salary upgrade

for Polytechnics in July 2009. These developments could translate into value creation for academic staff of Polytechnics in Nigeria.

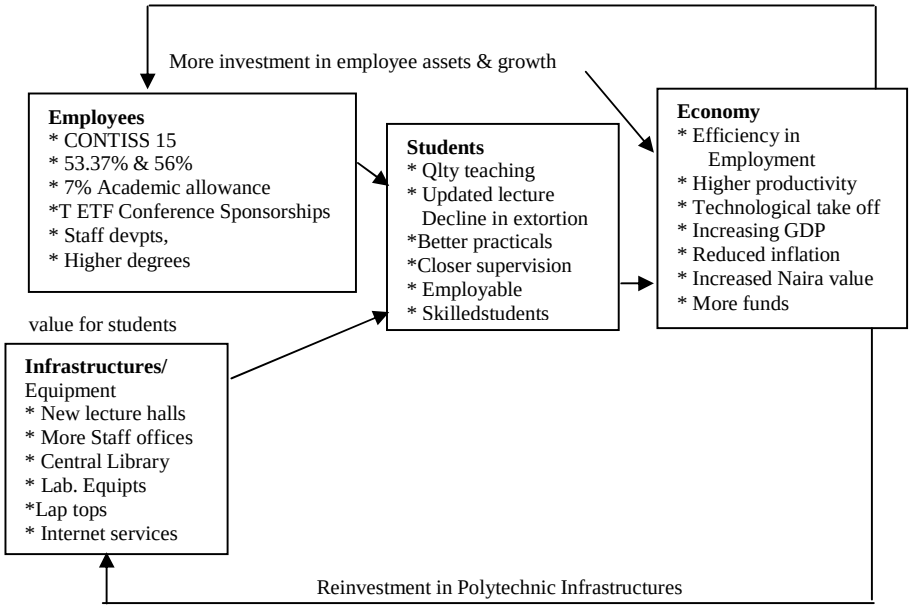

Fig. 1.4: ***Balance Sheet Dynamics Model of Polytechnic Education in Nigeria***
Source: Author. Adapted from O'Malley (1998)

The Infrastructure/Equipment (R&D) Assets

There has also been significant funds inflow for system upgrades in the Polytechnics within the same period. TETF interventions have been directed at construction of lecture halls and lecture auditoria, staff offices, modern laboratories, libraries and acquisition of machines and equipment for teaching and learning processes. The Agency has also sponsored laptop procurements

for distribution to lecturers and academic departments. Internet services are being provided to aid virtual education in the sub-sector. Funds for consumables are now readily available for practical. This too is an impetus capable of exciting value creation and delivery in Polytechnic teaching and learning processes in Nigeria.

The Students Assets (Customers)

The students' strategic balance sheet shows the values that can be delivered as a result of interactions between the first two sheets. Key among these values are quality teaching processes, quality lecture materials, better practicals for skill development, closer student project and student industrial work experience scheme (SIWES) supervisions and decline in extortion. These have the propensity to facilitate creation of a skilled middle level manpower, which is critical to the technological and industrial development in Nigeria.

The Economic Pay-offs

Properly trained graduates from the Polytechnics sub-sector, under the prevailing circumstances, will be of immense benefit to the economy. Key contributions of this development to the economy would include efficiency of employees, higher productivity, and improved technological development, improved GDP, reduced inflation and increased Naira value. Reduced inflation will occur because consumption and productivity will even out. This scenario will exist because more jobs will be created, since Polytechnic graduates would become employable. This would lead to more funds, which could constitute government reinvestment into the first two assets: employee assets and infrastructure/equipment and

R&D assets. And, so the cycle of value creation in Polytechnics education outcomes is enacted and continually re-enacted.

Recommendations

The following recommendations have become necessary:

1. Government should create a mid-term funding for the Polytechnic sub-sector because the weak educational foundations laid at the primary and secondary levels are placing a greater responsibility on the tertiary education level as a whole.
2. Government should also extend the period of TETF interventions so that more could be accomplished in terms of value creation for all the stakeholders in the Polytechnic sub-sector.
3. To handle the problem of brain drift from the polytechnic sub-sector, particularly to the Universities, lecturers who successfully acquire their PhD degrees should be given university salaries and other allowances to keep them in the sector.
4. Budget to the education sector should be elevated to the UNESCO mark of 26% of the Country's GDP.

Conclusion

The development in the Polytechnic sub-sector of Nigeria's education industry is significant, especially within the past five years. The sub-sector has witnessed improvement in funds inflow in order to address the necessity of upgrading the human capital and infrastructural deelopment. The result is highly motivated staff to deliver value to students. In a foreseeable, well-trained

lecturers using state-of-the-art processes could create outstanding customer value. The various cycles of these processes are captured in the Balance Sheet Dynamics model.

The students of the Polytechnics too would reap off this scenario with value delivery in their desired academic callings. On graduation, these trainees get into the economy by way of employments, leading to efficiency and higher productivity, thereby expediting economic growth. From the world of theory, the workings of the balance sheet dynamics, as modified for the Polytechnics sub-sector, is projected to create value for the students, the employees of Polytechnics and the governments of the country both in the short and long runs.

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