An Evaluation of Students’ Admission Exercises (ESAE) in Kaduna State University, Nigeria

A.S. Magaji¹, S. Abdulkadir², A. Peter³, A. A. Muhammad⁴ and I. A. Yushau*

Department of Mathematical Sciences, Kaduna State University, Kaduna, Nigeria
E-mail: <abu_magaji@kasu.edu.ng>, <saa.abdul@kasu.edu.ng>,
⁴<ayubng@kasu.edu.ng>, <muhdaminu@kasu.edu.ng>

*Department of Business Administration, Kaduna State University, Kaduna, Nigeria
E-mail: yushauango@yahoo.com

KEYWORDS Data Mining. Trend Analysis. Admission Policy. Education. Enrolment Analysis

ABSTRACT The evaluation of students’ admission exercise in Kaduna State University (KASU) considered the number of students admitted into the various programmes of the University. An analysis of students’ admission exercises was carried out from the inception of the University in 2005/2006 session to 2010/2011 session. The study aims to evaluate the compliance of the admission exercise with the National Policy on Education (NPC), and equal regional spread based on the existing senatorial zones in Kaduna State. Thus, the objective is to determine the suitability of graduate employee skills to the skills required for better performance in the State. The study went further to evaluate the admission exercises statistically in order to determine strict adherence to the guidelines set out for the exercise, and compliance with the enrolment policy. The trend analysis conducted shows that the graduate employee skills produced by KASU matches more to the skills not required for modern workplace in the state.

1. INTRODUCTION

Data Mining as defined by some researchers, is the search for relationships and global patterns that exist in large databases but are ‘hidden’ among the vast amount of data (Olabode et al. 2010). The author further stated that “Data Mining or Knowledge Discovery in Databases (KDD) is non-trivial extraction of implicit, previously unknown, and potentially useful information from data”. The technical approaches of KDD among others include analyzing changes and detecting anomalies.

The demand for university education in Nigeria has been on the increase than ever before. Both the public and private universities put together, have not been able to meet the admission spaces of candidates seeking admission into universities. In concrete terms, the number of students in the universities increased from an undergraduate student population of 210 in 1948 to an estimate of 600,000 in 2003 (Akinkugbe 2003). Over the years policies had been formulated in order to address the various issues affecting the admission exercises in Nigerian Universities.

Kaduna State University (KASU) at inception admitted a total number of 409 students. The statistics in 2010/2011 academic session showed that a total number of students 1,626 were admitted. The fundamental issue to be considered at all times of admission exercises is sticking to the established rules as regards government policies. The aim of the study was to evaluate the admission statistics in KASU in order to determine whether the under laid basic rules for admission exercise were duly observed.

The trend on admission exercises for the past six years (2005-2011) was generated and the researchers used the results to first determine the level of adherence to the National Policy on Education on enrolment ratio of 60% Science and 40% Arts (KASU 2011); and then they evaluated the results and examined the accuracy of the geo-political spread of the admission exercises. Finally, the researchers drew their conclusions based on the facts presented in their results and observations and thereof they advanced some recommendations for a way forward.

1.1 Literature Review

The major finding in the study of university admission exercise is a consistent decline in the number of students admitted for science education programmes since the introduction of Post University Matriculation Examination (UME) screening exercise (Ajaja 2010).

The graduate unemployment in Nigeria is attributable to the fact that employees’ education and skills acquired are inadequate to meet
the demands of modern day jobs. There is an extent of mismatch between graduate turnout vis-a-vis their skills and graduate employment in Nigeria. The increase in the graduate unemployment rate was largely attributed to the mismatch between graduate employee skills and those skills required for performance in the modern workplace. The study therefore recommended that the issue of mismatch between graduate turnout vis a vis their skills and graduate employment should be seriously addressed by taking a three-dimensional approach that involves the tertiary institutions, the government, and the labour market (Akinyemi et al. 2010).

The issue of producing “right” manpower from the Nigerian Universities was discussed by Anho (2011); the goal of the study was to conduct a comparative evaluation of how the public and private sector employers perceive the employability of graduates of Nigerian Universities. The findings revealed that the private sector employers consider graduates of Nigeria Universities as high quality, while the public sector employers rated the graduates as low quality (Anho 2011).

In both the developed and developing countries, the government is turning to Small and Medium Scale Industries, as a means of economic development and a veritable means of solving problems. It is also a seedbed of innovations, inventions and employment. Presently in Nigeria, Small and Medium Enterprises assist in promoting the growth of the country’s economy, hence all the levels of government at different times have policies which promote the growth and sustenance of Small and Medium Enterprises. This publication identified the historical development and orientation of Small and Medium Enterprises in Nigeria, tackles the operational definition and scope, and describes the role of the Nigerian government as a participant, regulator and facilitator, both legally and politically in the growth of Small and Medium Enterprises (Ogechukwu 2011).

Aluede and others (2012) conceptualized access to education and presented documentary evidence regarding the demand and supply of university education in Nigeria. It reported that of the number of candidates applying for admission every year in Nigeria, only about 5.2% to 15.3% get admitted every year, meaning that about 84.7% to 94.8% of the candidates seeking admissions every year never get admitted into Nigerian universities. Their work recognized the fact that this low access to university education in Nigeria could be the result of the following: problem of carrying capacity; infrastructural/ facilities challenge; inadequate public financing; economic constraints; labor market failure (low absorptive capacity of the economy; and problem of curriculum and curriculum delivery (Aluede et al. 2012).

The work of Babatunde and others (2012) proposes twenty-four performance indices that were freely considered by the authors as relevant for the conceptualization and evaluation of the impact of ICT on the Nigerian Universities. Their results showed that the performance indices of some extraneous factors which contribute in no small measure to the current performance of ICT in Nigerian universities were not given consideration in the research instrument. Such extraneous factors include but not limited to staff training, security of lives and properties, discipline among staff and student, curriculum and government policy on ICT (Babatunde et al. 2012).

The Federal Government of Nigeria has launched a 4-Year Strategic Plan Document for the development of the education Sector that will ensure the transformation of the sector by 2015. The goal of the Federal Ministry of Education as clearly represented by the Strategic Plan was that by 2015, there will be significant difference in the state of the educational institutions, as well as the quality of products of the institutions in Nigeria. The policy document identified six intervention areas these include Access and Equity, Standards and Quality Assurance, Technical and Vocational Education and Training, Teacher Education Development, Funding, Partnerships and Resource Mobilization and Utilization; two of these focal areas represented the basic strategic goals of the Nigerian education sector. These are Access and Equity and Standard and Quality Assurance (Rufai 2012).

1.2 Statement of Problem

Kaduna State University admission exercise is usually conducted based on the two main criteria; (1) compliance with the National Policy on Education as regards enrolment ratio of 60% Science and 40% Arts; (2) equal regional spread based on the existing senatorial zones in Kaduna
State. The study will evaluate students’ statistics on admission in order to determine strict adherence to the guidelines set out for admission exercises. This will enable us to realize the match/mismatch between graduate employee skills and those skills required for performance in the modern workplace in the state and the country at large.

2. METHODOLOGY

The design employed for this study was Expost Facto (Ajaja 2010). This is identified to be most suitable and appropriate for the study since the past records of students admitted were used in reaching conclusions about the whole exercises.

2.1 Population and Sample of the Study


The total population of the students at the time of this study was 5,583; which consisted of 1,385 students for Faculty of Arts; 2,081 students for Faculty of Science; 2,028 students for Faculty of Social Management Sciences and 89 students for Faculty of Medicine. Faculty of Arts houses seven (7) BA programmes: Arabic, Christian Religious Knowledge (CRS), English, French, Hausa, History and Islamic Religious Language (ISL). Faculty of Science houses nine (9) BSc programmes: Biochemistry, Biology, Chemistry, Computer Science, Geography, Industrial Chemistry, Mathematics, Microbiology and Physics. Faculty of SMS houses six (6) BSc programmes leading to the award of degrees in Accounting, Business Administration, Economics, Mass Communication, Political Science and Sociology; while the newly established Faculty of Medicine runs MBBS programme. At a certain stage of this analysis, the Faculties of Arts and SMS were merged to represent Arts; while Faculties of Science and Medicine were merged to represent Science.

2.2 Instrument

The main instrument used for the study was students’ admission records. This was the past admission lists consisting of the names of students admitted for the various programmes of study in the university.

2.3 Procedure of Data Collection

All data used for the study were collected from KASU database and annual reports of the University. The data collected were statistically analyzed in order to obtain accurate result.

3. RESULTS AND DISCUSSION

3.1 Trends Analysis

As shown in Table 1, between the first and second year an overall increase of 43% was recorded; while faculties of Social and Management Sciences (112%) and Arts (73%) witnessed a very high percentage increase in their enrolment figures, Faculty of Science had a decrease of 12%. The statistics for this period (2005/2006 and 2006/2007 sessions) could probably be explained due to the introduction of new programmes at that time. These programmes were French, Mass Communication and Sociology.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts</td>
<td>Total no. admitted</td>
<td>89</td>
<td>154</td>
<td>137</td>
<td>290</td>
<td>360</td>
<td>355</td>
</tr>
<tr>
<td></td>
<td>% Increase</td>
<td>73%</td>
<td>-11%</td>
<td>112%</td>
<td>24%</td>
<td>-1%</td>
<td></td>
</tr>
<tr>
<td>Science</td>
<td>Total no. admitted</td>
<td>199</td>
<td>175</td>
<td>212</td>
<td>347</td>
<td>514</td>
<td>634</td>
</tr>
<tr>
<td></td>
<td>% Increase</td>
<td>-12%</td>
<td>21%</td>
<td>64%</td>
<td>48%</td>
<td>23%</td>
<td></td>
</tr>
<tr>
<td>Social Management Science</td>
<td>Total no. admitted</td>
<td>121</td>
<td>257</td>
<td>142</td>
<td>389</td>
<td>526</td>
<td>593</td>
</tr>
<tr>
<td></td>
<td>% Increase</td>
<td>112%</td>
<td>-45%</td>
<td>174%</td>
<td>35%</td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>Medicine</td>
<td>Total no. admitted</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>45</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>% Increase</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>100%</td>
<td>-2%</td>
<td></td>
</tr>
<tr>
<td>Grand Total</td>
<td>Total no. admitted</td>
<td>409</td>
<td>586</td>
<td>491</td>
<td>1026</td>
<td>1445</td>
<td>1626</td>
</tr>
<tr>
<td></td>
<td>% Increase</td>
<td>43%</td>
<td>-16%</td>
<td>109%</td>
<td>41%</td>
<td>13%</td>
<td></td>
</tr>
</tbody>
</table>
In the third year the university recorded an overall decrease of 16% in its enrolment. However, Faculty of Science had an increase of 21%, but this did not measure up to the previous year’s increase for the other two faculties of SMS and Arts. At this stage SMS and Arts dropped by 45% and 11% respectively.

There was a very high increase in enrolment during the fourth year’s admission figure, which translated to a percentage increase of 109% against the previous year (Table 1). Faculty of Science had the least percentage increase of 64%, Arts came second with 112% and SMS had the highest increase of 174%.

During the fifth year, there was a general enrolment increase of 41%. It is obvious that faculty of Science had an appreciable increase of 48% as against SMS’s 35% and Art’s 24%. Faculty of Medicine admitted 45 students as the first set of medical students. In the sixth year with an increase of 13%, Faculty of Science maintained its lead with 23% increase; as Arts dropped by 1%, SMS appreciated by 13% and Medicine had a decrease of 2%.

3.2 Arts versus Science

The first admission exercise in 2005 was almost an equal ratio of 51% and 49% enrolment in Arts and Science respectively (Table 2). In the subsequent year, the enrolment in Science dropped to only 30% against 70% enrolment in Arts. Almost the same pattern was maintained throughout the following four years where Arts had more percentage than Science [2007(57% against 43%); 2008 (66% against 34%); 2009 (61% against 39%); 2010 (58% against 42%)]. Likewise, as shown in Table 2, for all the admission exercises across the regional divide Science got far less than 60%.

3.3 Geo-political Spread

The evaluation based on the geo-political spread took the three existing senatorial zones (northern, central and southern) and others (non-indigenes) into consideration. The KASU admission guidelines (KASU 2011) stipulated that each local Government Authority (LGA) should have equal number of slots, the total of which is to constitute 90% while non-indigenes takes up the remaining 10%.

There were eight LGAs in northern and southern zones each, while the Central zone had seven; however the analysis (Table 2) shows that, the central zone, despite having fewest Local Government Authorities (LGAs), got the higher percentage of enrolment than the Northern zone, and the non-indigene 10% quota was exceeded. These imbalances made the northern zone lose out some percentages.

4. CONCLUSION

The trend analysis of KASU admission exercises did not only depict “jumpy” progressions rather than uniform transitional curves, but also a non-compliance with the National Policy on Education as regards enrolment ratio of 60% Science and 40% Arts throughout the years of admission exercises. However, the equal spread of enrolment was also not adhered in the first two and last two years (2005/2006, 2006/2007, 2009/2010 and 2010/2011) of the admission exercises.

Thus, the result of this trend analysis shows that Kaduna State University is producing less than necessary manpower skills required for performance in the modern workplace in the state and Nigeria as a whole.

Furthermore, in the regional spread of the enrolment, the northern zone is every year losing out its slots to the central zone and non-indigenes.

5. RECOMMENDATIONS

Subsequent to the findings of the study, the researchers recommend that

<table>
<thead>
<tr>
<th></th>
<th>Arts</th>
<th>Science</th>
<th>Total</th>
<th>Arts (%)</th>
<th>Science (%)</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Zone</td>
<td>998</td>
<td>683</td>
<td>1681</td>
<td>59%</td>
<td>41%</td>
<td>30%</td>
</tr>
<tr>
<td>Northern Zone</td>
<td>990</td>
<td>479</td>
<td>1469</td>
<td>67%</td>
<td>33%</td>
<td>26%</td>
</tr>
<tr>
<td>Southern Zone</td>
<td>961</td>
<td>768</td>
<td>1729</td>
<td>56%</td>
<td>44%</td>
<td>31%</td>
</tr>
<tr>
<td>Non Indigenes</td>
<td>464</td>
<td>240</td>
<td>704</td>
<td>66%</td>
<td>34%</td>
<td>13%</td>
</tr>
<tr>
<td>Grand Total</td>
<td>3413</td>
<td>2170</td>
<td>5583</td>
<td>61%</td>
<td>39%</td>
<td>100%</td>
</tr>
</tbody>
</table>
• The National Policy on Education as regards enrolment ratio of 60% Science and 40% Arts should be strictly adhered to in all future admission exercises.
• KASU should ensure the quota system is always observed as stipulated.

REFERENCES


