

MANPOWER INVENTORY AND FORECASTING AS CORRELATES OF STRATEGIC GOALS ACHIEVEMENT OF PUBLIC UNIVERSITIES IN SOUTHWEST, NIGERIA

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Abstract

This study examined manpower inventory and forecasting as correlates of strategic goal achievement in public universities in Southwest Nigeria, given the persistent challenges in aligning human resource planning with institutional objectives despite noticeable staff growth. The objective was to investigate the relationships between manpower inventory, manpower forecasting, and the achievement of strategic goals. A descriptive survey and correlational design was employed, targeting 600 academic and non-academic staff across six public universities selected through multistage sampling. Data were collected using a validated Strategic Goal Achievements Questionnaire and a manpower inventory instrument and analysed with descriptive statistics and Pearson Product Moment Correlation at 0.05 significance level. The findings revealed that while universities experienced considerable growth in academic staff numbers, there was no significant relationship between manpower inventory and strategic goal achievement. Conversely, manpower forecasting showed a significant positive relationship with the attainment of strategic goals, underscoring the importance of proactive planning. Based on the findings of the study, it was concluded that simply increasing staff strength does not guarantee strategic success; rather, effective forecasting and alignment of human resources with institutional aspirations are crucial. Based on the findings of the study, it was recommend that university management prioritise data-driven forecasting models, conduct regular manpower audits to align human resources with strategic goals, and ensure that staffing benchmarks are strictly adhered to, while planners should base projections on accurate data to enhance goal attainment.

Keywords: Manpower inventory, Manpower forecasting, Strategic goals, Achievement, Public universities

Introduction

Strategic goal achievement in public universities is significantly tied to effective manpower planning, especially in the areas of manpower inventory and forecasting. In the context of Southwest Nigeria, it appears that despite concerted efforts by universities to align manpower development with institutional targets, the realisation of these strategic goals remains elusive. This shortfall is evident in the relatively low global rankings and the underperformance of several public universities in the region. A critical factor contributing to this problem seems to be the absence of a coherent and comprehensive manpower planning system—particularly the inability to build and sustain reliable manpower inventories and conduct accurate forecasts.

A robust manpower inventory forms the foundation for achieving strategic goals in higher education institutions (Falola et al., 2022). Before future human resource requirements can be forecasted, there must be an in-depth assessment of the current workforce structure. This involves detailed analysis of faculty composition, departmental structures, course loads, and the employee count within various units. Beyond basic data such as age and location, institutions must maintain a dynamic skills inventory which outlines technical qualifications and professional competencies of staff. This enables universities to measure current capacity against future requirements, thereby facilitating informed decision-making regarding human capital investments.

Equally vital to institutional success is manpower forecasting. Forecasting enables universities to transform their strategic intentions into quantifiable human resource requirements, expressed in terms of the number and types of employees needed in the future (Habeeb & Eyupoglu 2024). It also provides clarity about how the institution intends to achieve its goals. Through accurate forecasting, management can determine the direction of the university, translate this into staff needs, and identify any gaps between current capabilities and future demands. This process ensures that future manpower requirements are integrated with the university's broader development plans.

Alebiosu (2022) and Armstrong (2012) defines manpower forecasting as the process of estimating future staffing requirements and identifying necessary competencies. According to Pradeesh (2011), the traditional approach to demand forecasting often involves using ratios and technological tools to analyse external threats and opportunities. Accurate forecasting not only helps predict future personnel numbers but also assists in assessing the skills required to support anticipated institutional growth. The ability to estimate demand based on projected service outputs such as student enrolment or research activity is essential for ensuring manpower readiness. Questions typically addressed in forecasting include: What is the current staff distribution by

category and skill? What percentage is nearing retirement? Who is eligible for promotion? What is the expected turnover in the next five years? Noe (2012) identifies additional factors influencing personnel forecasts, such as budget constraints, technological changes, staff turnover, and evolving service demands. These factors make it crucial for university administrators to forecast proactively, as poor planning often results in last-minute staffing decisions that are both costly and inefficient (Wahedi et al., 2023). Mathematical models and strategic planning tools, including regression analysis and scenario planning, are increasingly used to enhance forecasting accuracy. Urbancova et al., (2021) and Cookie et al., (2023) and Michael (2006) emphasises that human resource forecasting must be contextualised within institutional objectives. The efficacy of these forecasts depends on how well university managers understand the interrelation between personnel planning and long-term success. The more accurate the forecast, the more strategic the resource allocation.

In conclusion, manpower inventory and forecasting are pivotal to the achievement of strategic goals in public universities in Southwest Nigeria. These components not only ensure efficient staff deployment and development but also enable institutions to anticipate and adapt to future challenges. Without accurate inventory and proactive forecasting, strategic goals remain unattainable ideals rather than achievable outcomes.

Purpose of the Study

The the examined the relationship between manpower inventory and forecasting as correlates of strategic goals achievement in public universities in Southwest, Nigeria.

The following research questions were raised to for the study

1. What is the level of manpower inventory in public universities in Southwest, Nigeria?
2. What is the level of manpower forecasting in public universities in Southwest, Nigeria?
3. What is the extent of strategic goals achievement in public universities in Southwest, Nigeria?

The following research hypotheses were formulated to for the study

1. there is no significant relationship between manpower inventory and strategic goal achievement in public universities in Southwest, Nigeria.
2. there is no significant relationship between manpower forecasting and strategic goal achievement in public universities in Southwest, Nigeria.

Methodology

The study adopted descriptive survey and correlational research design. The population for the study consisted of all academic and non-academic staff members in Federal and State-owned public universities in Southwest, Nigeria. The sample for the study consisted of 600 staff members. The sample was selected through a multistage sampling procedure to ensure a representative sample across the region. In the first stage, the six states in Southwest Nigeria were stratified into three groups based on their geographical proximity and similar backgrounds: Lagos and Ogun formed one group, Oyo and Osun another, while Ondo and Ekiti formed the third. From each group, one state was randomly selected. At the second stage, purposive stratified random sampling was used to select one federal and one state university from each chosen state, resulting in six universities (three federal and three state). Finally, proportionate sampling was employed to select 100 academic and non-academic staff members from each university, culminating in 600 participants. Two research instruments tagged “Strategic Goal Achievements Questionnaire (SGAQ)” and “Strategic Goal Achievements Questionnaire (SGAQ)” were used to obtain relevant data for the study. The first tagged “Strategic Goal Achievements Questionnaire (SGAQ)” consisted of two sections. Section A sought for demographic information of the respondents while section B contained items measuring the achievement of strategic goals by public universities. Four-point Likert rating scale Strongly Agree (4 points) to Strongly Disagree (1 point) was used for the study. Face and content validity was used for the study. The instruments were validated by experts in educational management and test and measurement. Test retest method of reliability was used for the study. The instruments were administered on 20 respondents outside the sampled area twice within the interval of two weeks. The two sets of responses were correlated and analyzed using Pearson Product Moment Correlation and a coefficient of 0.72 and 0.70 were obtained for both instruments which were considered enough for the study. The data collected were analysed using both descriptive and inferential statistics. Descriptive statistics such as mean scores, frequency counts, percentage scores, and standard deviations, were used to answer the research questions. Pearson Product Moment Correlation was employed to test the research hypotheses at the 0.05 level of significance.

Results

Research Questions

Research Question 1: What is the level of manpower inventory in public universities in Southwest, Nigeria?

Table 2: Manpower Stock of the Selected Universities in Southwest, Nigeria

UNIVER SITY	NO OF DEPT		ACADEMIC STAFF CADRE							AVERAGE	% increase	
			Professor	Associate Prof	Senior Lecturer	Lecturer 1	Lecturer 2	Asst Lecturer	Graduate Assist			TOTAL
A	9	PAST 5 YEARS	12	11	12	6	7	9	8	65	9	
		ON GROUND	12	16	14	12	12	14	20	100	14	53.85%
B	18	PAST 5 YEARS	54	87	56	61	21	49	29	357	51	
		ON GROUND	56	67	68	54	65	22	47	379	54	6.16%
C	15	PAST 5 YEARS	19	49	21	18	24	19	11	161	23	
		ON GROUND	17	16	14	24	23	35	18	147	21	8.70%
D	18	PAST 5 YEARS	12	11	13	21	22	12	8	99	14	
		ON GROUND	23	45	51	43	21	23	18	224	32	126.26%
E	18	PAST 5 YEARS	32	35	112	12	19	14	16	240	34	
		ON GROUND	68	70	32	43	31	36	25	305	44	27.08%
F	16	PAST 5 YEARS	42	43	22	19	30	39	13	208	30	
		ON GROUND	78	65	66	65	33	43	41	391	56	87.98%

Table 1 shows the manpower inventory of the selected public universities. The table indicated that the universities had an increase of 53.85%, 6.16%, 8.70%, 126.26%, 27.08% and 87.98% in the n

umber of academic staff over a period of five years. This translates to an average increase of 51.67% in the selected universities academic staff over a period of five years.

Research Question 2: What is the level of manpower forecasting in public universities in Southwest, Nigeria?

In answering this question, the manpower data obtained with the Inventory on Manpower Forecasting of Public Universities (IMFPU) were subjected to descriptive statistics. The result obtained is presented in Table 2:

Table 2: Manpower Forecast of the Selected Universities in Southwest, Nigeria

UNIVERSITY	NO OF DEPT	FORECAST								TOTAL	AVERAGE
		Professor	Associate Prof	Senior Lecturer	Lecturer 1	Lecturer 2	Assist Lecturer	Graduate Assist			
A	9	53	22	34	22	18	12	14	175	25	
B	18	61	54	45	44	34	17	24	279	40	
C	15	45	42	60	60	44	43	22	316	45	
D	18	73	71	62	56	76	56	44	438	63	
E	18	93	97	96	68	87	58	77	576	82	
F	16	165	163	167	109	112	156	109	981	140	
TOTAL	94	490	449	464	359	371	342	290	2765	395	
AVERAGE	16	82	75	77	60	62	57	48	461	66	

The table 2 showed the manpower forecast of the selected public universities in Southwest, Nigeria. It showed in the table that the average number of academic staff forecasted in the selected department from the universities for the next five years is 66 with the total of 395. This represent an increase of 78.68% in the number of academic staff.

Research Question 3: What is the extent of strategic goals achievement in public universities in Southwest, Nigeria?

In order to answer this question, frequency counts and percentage scores on items 1-20, Section B of the Questionnaire on Achievement of Strategic Goals of Public Universities (QASGPU) were computed. The average responses on teaching and research were obtained together with the mean scores of each. The average mean score was used to rate each item as Low or High. Mean Score that fall below the Criterion mean of 2.50 was rated as Low while mean score above 2.50 was rated high. Thus, the low extent of achievement of strategic goals was between 0.00-2.49, while the High extent was between 2.51-4.00. The result obtained is presented in Table 3:

Table 1: Extent of Achievement of Strategic Goals by Public Universities in Southwest, Nigeria

s/no	Items	SA	A	D	SD	SCORE	MEAN SCORE	Decision
1	In the latest University ranking, my university is ranked a world-class University	99	42	129	262	1042	1.79	Low extent
2	My university is often rated high among the southwest Universities	185	56	248	93	1497	2.57	High extent
3	The students in my university are well supervised to carry out meaningful research work comparable to a world-class research	183	246	105	48	1728	2.97	High extent
4	Most of the graduates from my university are often found worthy in learning in the labour market	186	194	71	131	1599	2.75	High extent
5	The graduates of my university are often found worthy in character in the society	220	173	85	104	1673	2.87	High extent

6	Entrepreneurial skills are taught to students in addition to other course works in my university	195	172	89	126	1600	2.75	High extent
7	My university is staffed with well-trained academic workers	169	209	99	105	1606	2.76	High extent
8	My university provides small-scale enterprises services to the communities around	234	207	98	43	1796	3.09	High extent
9	The admission of students into my university is strictly based on academic competence	274	178	93	37	1853	3.18	High extent
10	Most of the graduates from my university are found relevant and employable in the labour market	197	240	104	41	1757	3.02	High extent
11	My university has well developed ICT infrastructural facilities	231	217	85	49	1794	3.08	High extent
12	Most of the students' academic works in my university are computer based	217	213	106	46	1765	3.03	High extent
13	The academic staff in my university are well remunerated	143	151	119	169	1432	2.46	Low extent
14	Fringe benefits are given to members of academic staff in my university to ensure their	168	265	103	46	1719	2.95	High extent

	welfare							
15	My university has well-equipped hospital to care for the need of staff and students	261	188	96	37	1837	3.16	High extent
16	My university has recreational facilities to care for students' welfare	175	262	108	37	1739	2.99	High extent
17	My university enjoys appreciable internally generated revenue from its investment in small-scale business enterprises	146	146	148	142	1460	2.51	High extent
18	My university has witnessed appreciable expansion in terms of infrastructural facilities in the recent years	140	170	112	160	1454	2.50	High extent
19	My university has adequate academic staff to handle the various academic courses	172	148	111	151	1505	2.59	High extent
20	Political instability on the part of government poses a serious disruption to strategic goal achievement of my university	230	221	81	50	1795	3.08	High extent
	Total	3825	3698	2190	1877	32651	56.10	
	Average	191	185	110	94	1633	2.81	High extent

Table 3 showed the extent to which public universities are able to achieve strategic goals in Southwest, Nigeria. The table indicated that item 1 (in the latest university ranking, my university is ranked a world-class university) and item 13 (the academic staff in my school are well remunerated) were rated Low with an average mean score of 1.79 and 2.46 respectively. Items 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12 were rated high with an average mean score of 2.57, 2.97, 2.75, 2.87, 2.75, 2.76, 3.09, 3.18, 3.02, 3.08, and 3.03 respectively. In the same vein, items 14, 15, 16, 17, 18, 19, and 20 were rated high with mean score of 2.9, 3.16, 2.99, 2.51, 2.50, 2.59 and 3.08 respectively. The overall level of public universities achievement of strategic goals was rated high with an average mean score of 2.81. Hence, the public universities in southwest, Nigeria have been able to achieve their strategic goals to a high extent.

Hypotheses Testing

Hypothesis 1: There is no significant relationship between manpower inventory and strategic goal achievement

Table 1: Showing relationship between manpower inventory and strategic goals achievement

Variables	N	Mean	Stand Dev	r-cal	pvalue
Manpower Inventory	94	16.4468	6.97726		
				0.120	0.250
Strategic goals achievement	94	56.1066	9.97726		

*P<0.05

Table 2 shows that r-cal (0.120) is less than r-tab (0.178) at 0.05 level of significance. The result is not significant (p-value >0.05) and the null hypothesis was not rejected. Hence, there was no significant relationship between manpower inventory and strategic goals achievement.

Hypothesis 2: There is no significant relationship between manpower forecasting and strategic goal achievement

Table 2: Showing relationship between manpower forecasting and strategic goals achievement

Variables	N	Mean	Stand Dev	r-cal	pvalue
Manpower Forecasting	94	16.4468	6.97726		
				0.208	0.045
Strategic goals achievement	94	56.1066	9.97726		

*P<0.05

Table 2 shows that r-cal (0.208) is greater than r-tab (0.178) at 0.05 level of significance. The result is not significant (p-value <0.05) and the null hypothesis was rejected. Hence, there was significant relationship between manpower forecasting and strategic goals achievement.

Discussion

The findings of the study revealed that the level of manpower inventory in public universities in Southwest, Nigeria was high because universities had an increase of 53.85%, 6.16%, 8.70%, 126.26%, 27.08% and 87.98% in the number of academic staff over a period of five years. The findings also revealed that the level of manpower forecasting in public universities in Southwest, Nigeria was high because there is an increase of 78.68% in the number of academic staff. The findings of the study further revealed that the overall level of public universities achievement of strategic goals was rated high with an average mean score of 2.81. Hence, the public universities in southwest, Nigeria have been able to achieve their strategic goals to a high extent. The findings of the study showed that there was no significant relationship between manpower inventory and strategic goals achievement. The findings is in line with the submission of Byars and Rue (2004) who asserted that expertises are instantly obtainable as contrasted to the predicted manpower prerequisites. The study further revealed that there was significant relationship between manpower forecasting and strategic goals achievement. The finding is in tandem with the study of Ekeria, Ogedengbe, Ewanlen and Pogonson (2013) who found that there was significant relationship between manpower forecasting and strategic goals achievement

Conclusion

Based on the findings of the study, it was concluded that simply increasing staff strength does not guarantee strategic success; rather, effective forecasting and alignment of human resources with institutional aspirations are crucial.

Recommendations

Based on the findings of the study, it was recommended that university management should prioritise the use of data-driven forecasting models to anticipate future staffing needs in line with institutional objectives. This would involve regular assessment of academic programmes, emerging fields of study, and student population trends to ensure that future recruitment, training, and staff development plans are aligned with long-term goals. Such proactive planning will help universities allocate resources efficiently and build a workforce capable of driving strategic priorities.

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