PERCEIVED IMPACT OF AI- DRIVEN TECHNOLOGIES ON RESOURCES ALLOCATION, WORK LOAD AND TIME MANAGEMENT IN TARABA STATE UNIVERSITY, JALINGO, TARABA STATE, NIGERIA

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Abstract

The study investigated perceived impact of AI driven technologies on resource allocation, workload and time management in Taraba State University, Jalingo, Taraba State, Nigeria. Three research questions and hypotheses were formulated in line with the purpose of the study. Descriptive survey design was adopted for this study. The population was 59, comprising 11 Deans of faculties and 48 Heads of Departments in Taraba State University. All the Deans and Heads of Departments were used because of their manageable size. The instrument for data collection was a researcher-designed questionnaire titled "AI-Driven Technology Questionnaire (AIDTQ). The instrument was designed on a four –point rating scale of Very High Extent (VHE), High Extent (HE), Low Extent, (LE), and Very Low Extent (VLE). They were scored 4, 3, 2 and 1 respectively. The instrument was validated by two experts, one from Educational Administration and Planning and one from Measurement and Evaluation, all in Department of Educational Foundations, Faculty of Education, Taraba State University, Jalingo. The internal consistency of the instrument was determined using split- half method of estimating reliability. 5 Deans of faculties, 10 heads of Departments and 25 lecturers, totalling 40 respondents from Benue State University Makurdi were randomly selected for the trial test using the balloting method. Data generated were analyzed using Cronbach Alpha method. Cronbach Alpha was used because the items were not dichotomously scored. The researchers, with the help of 3 trained research assistants administered and collected the completed questionnaire for analysis. Data generated from the study were analyzed using both descriptive and inferential statistics. Descriptive statistics of mean and standard deviation were used to answer the research questions. Inferential statistics of chi-square goodness of fit was used to test all the null hypotheses at 0.05 level of significance. The study found that AI-driven technologies have significant impact on resource allocation, workload management, and time management in Taraba State University. Based on the findings, recommendations were made that AI-driven technologies should be deployed by the management of Taraba State University Jalingo in resource allocation across all sections of the University. Deans and Heads of Departments should constantly adopt AI in creating schedule of activities for staff and also for determining workload distribution, among others.

Key Words: *AI technology, resource allocation, workload management, time management*

Introduction

In recent years, the integration of artificial intelligence (AI) technologies has become increasingly prevalent across various sectors, including higher education. Artificial intelligence (AI) is a branch of computer science, which involves developing computer programs to complete tasks which would otherwise

require human intelligence (Mohammed, 2019). The author further added that AI algorithms can tackle learning, perception, problem-solving, language-understanding and/or logical reasoning. Myriads of definitions have emerged in attempting to construct a definition for artificial intelligence, yet it has been stated by Kana (2024) that broadly, AI is the computer-based exploration of methods for solving challenging tasks that have traditionally depended on people for solution. Such tasks include complex logical inference, diagnosis, visual recognition, comprehension of natural language, game playing, explanation, and planning.

Due to its vast potentialities, AI holds immense potential to revolutionize resource allocation and optimization in university settings, enhancing efficiency, productivity, and overall performance. Taraba State University Jalingo, like many other academic institutions, faces challenges in effectively managing resources to meet the diverse needs of its academic community. Among the many gains of technology is the fact that application of artificial intelligence to efficiently allocate resources such as time, money, manpower and materials in various domains including manufacturing, logistics, healthcare and finance is possible and productive.

AI algorithms are used in financial institutions for portfolio optimization, risk management, and fraud detection. Research by Li et al. (2023) presents a deep learning approach for portfolio optimization, dynamically allocating assets to maximize returns while controlling risk. This implies that AI can be used to observe and predict different outcomes in the financial and other sectors after simulation of these diverse scenarios is achieved. Various AI techniques such as machine learning, natural language processing, and predictive analytics are being applied to optimize resource allocation in educational settings (Kong & Song, 2019). Researchers have proposed different AI models for allocating resources in educational institutions, including centralized, decentralized, and hybrid approaches (Ma et al., 2020). These models aim to distribute AI technologies and expertise effectively across departments and units to support diverse educational activities (Huang & Luo, 2018).

Consequently, optimization techniques such as genetic algorithms, simulated annealing, and reinforcement learning are being utilized to improve the efficiency and effectiveness of AI resource allocation in educational institutions (Yan et al., 2020). Empirical evidence abounds on the potential benefits of AI on resources allocation and optimization in institutions of learning. AI-powered course scheduling systems use optimization algorithms to create efficient and conflict-free schedules based on student preferences, course prerequisites, and resource constraints (Yuan et al., 2021). AI has emerged as a promising technology in education, offering opportunities to enhance teaching, learning, and administrative processes (Hsiao et al., 2019).

In manufacturing, AI is used for optimizing production schedules, predicting equipment failures, and minimizing downtime. Research by Zhang et al. (2021) demonstrates the use of deep reinforcement learning for real-time job shop scheduling, optimizing resource allocation while considering multiple objectives. AI helps optimize route planning, warehouse management, and vehicle scheduling to minimize costs and delivery times. Recent work by Lin et al. (2023) proposes a novel approach based on evolutionary algorithms and machine learning for vehicle routing problems with time windows, achieving significant improvements in resource allocation efficiency.

Some studies have been carried out in related fields of artificial intelligence and resource allocation management. Chatterjee, et al. (2020) carried out a study on "Adoption of artificial intelligence integrated CRM system: an empirical study of Indian organizations", with the purpose of understanding how artificial intelligence (AI) impacts integrated customer relationship management (CRM) system in Indian organizations. Some hypotheses were formulated followed by the development of a theoretical model conceptually. A validated instrument was administered for 308 respondents. Findings show that perceived usefulness and perceived ease of use directly impact the behavioral intention of the employees to adopt an AI integrated CRM system in organizations. Bhardwaj et al. (2020) studied artificial intelligence and its impact on human resource management functions in Delhi, using 115 HR professionals at various IT sector in Delhi/NCR region. A multiple regression method was used to test hypothesis and confirmed positive relationship between these two factors establishing about the increased use of AI at work results better HR functional performance. However, AI has significant relationship with innovativeness and also with ease of use which reflects AI effects HR with innovations and ease of use.

Practically, it has been observed that AI assists in optimizing staff schedules, hospital bed allocation, and workload distribution in healthcare facilities. A study by Wang et al. (2022) introduces a hybrid optimization framework combining genetic algorithms and neural networks for nurse scheduling, effectively

balancing workload and preferences. Similarly, higher institutions of learning in Nigeria are increasingly recognizing the potential of Artificial Intelligence (AI) to address various challenges and enhance educational outcomes. AI algorithms can assist in optimizing faculty workload management by analyzing factors such as teaching preferences, research commitments, and administrative duties to allocate tasks efficiently. These AI-driven approaches help balance faculty workloads, improve productivity, and enhance job performance (Zhang & Jiang, 2021). Supporting this assertion, Meduri et al. (2024) averred that AI can be seen as both a demand (requiring new skills and adaptability) and a resource (offering support and reducing manual workload). In addition, workload distribution and management are among the many benefits gained by the use of AI. Researchers have also explored the application of optimization algorithms in scheduling classes, allocating teaching assistants, and managing academic resources (Zhao et al., 2017).

Empirical studies have been conducted along the lines of artificial intelligence and workload management. For instance, D'Souza and Siddique (2022) examined Artificial Intelligence in School Management System, relying on four objectives and research questions. The focus of the study was on how AI can be used to manage the workload of the entire school processes. Qualitative data was gathered through interviews and quantitative data was collected from 222 respondents comprising parents, teachers and students, through a google form. Frequency counts, simple percentages, charts and tables were used to analyse and present data. Findings revealed that the use of artificial intelligence had significant impact on workload of teachers and the entire school processes from admission to graduation. In similar fashion, Al-Omari (2024) carried out a study to examine the impact of artificial intelligence on the school management in Jordan. The study was a descriptive survey design, which used a survey instrument to collect quantitative data from 253 teachers sampled randomly. Validation of the instrument was done by 5 experts from Educational Administration as well as Measurement and Evaluation, while a Cronbach's alpha of 0.89 was realized after reliability testing. Results revealed that AI improves Decision-Making, School Safety Enhancement, School Management, and School Administration. Results also reveal AI's Role in Improving Efficiency and Effectiveness, Reducing Educators' Workload, Improving Administrative Efficiency, and Positive Impact on Student Learning Outcomes. A study by Rozman et al. (2023) on AI-supported employee workload reduction to increase company performance was conducted on a random sample of 317 Slovenian medium-sized and large companies. Structural Equation Modelling was used to analyse data collected with a questionnaire. Findings showed that more than 72% of employees perceived reduction of their workload by AI, and the employees perceived that AI has a statistically significant positive effect on employee engagement.

Effective and efficient management of time has remained a challenge to many organizations and individuals due, largely to the increasing number of conflicting demands. According to Krichen (2024), AI has emerged as a powerful tool to help with time management, helping individuals and institutions to boost their productivity and efficiency through better time management. Time management can also be seen from the perspective of time estimation. Time estimation is an important aspect of project management. According to Bonnedahl (2024), time estimation plays a crucial role in successfully completing various tasks and endeavours, and being able to accurately predict how long a task or project will take is a critical factor when making informed decisions and managing resources in an efficient way. When an organisation or an individual fails to make accurate estimates and management of their time, it can become an impediment to productivity and outcomes, and failure to meet deadlines can lead to failure.

Despite the role of time estimation, most educational institutions have been seen to have difficulty reconciling scheduled tasks with projected deadlines. General school academic calendar and lecture timetables are examples of scenarios needing proper time management to achieve stated objectives. Invariably, underestimation or overestimation of the amount of time needed to complete task is known as the planning fallacy (Buehler & Griffin, in Bonnedahl, 2024). The authors added that there are instances where students manually estimated the time to complete their thesis to be 33.9 days, but ended up 55.5 days, 63.7% longer than estimated. Deploying the versatile tools in AI may give more accurate projections and estimations, which can help reduce error and eliminate such planning fallacies.

However, despite the potential benefits, there are challenges associated with AI-driven resources allocation in educational institutions, including data privacy concerns, ethical implications, and resource constraints (Shahiri et al., 2018). Addressing these challenges requires interdisciplinary collaboration, stakeholder engagement, and robust governance frameworks to ensure responsible AI deployment (Hodges et al., 2021). Similarly, workload distribution and time management in educational institutions have continued to raise concerns when such are done manually, and may be fraught with human errors. There is, therefore, the

need to investigate these claims to justify their authenticity or state otherwise. This study sought to address this problem using Faculties and Departments in Taraba State University Jalingo.

Taraba State University, Jalingo is located in Taraba State of Nigeria. Taraba State is in the Southern part of the North-East geopolitical region of Nigeria. It has a population of 2,300,736 according to the 2006 Population Census with a land area of 55, 920 km^2. The State University is located in Jalingo the Taraba State capital, a component part of the old Muri Division (Talla & Makai, 2018). Jalingo town lies approximately between longitudes 11° 09'E to 11° 30'E and latitude 08° 47'N to 09° 11'N. The University main campus is located in the former Taraba State College of Education site, along the Jalingo-Sunkani Road, sharing a border with the Taraba State College of Agriculture. The University seats on a combined land area of about 1,084 hectares conducive for academic work, proper planning and development (TSUJ, 2008 in Oruonye & Ojeh, 2018). Taraba has been observed to be among the states that have shown slow adoption of AI technology in learning and teaching, that students have low competence in basic computer literacy skills and high level of anxiety towards CBT (Dangut & Sakiyo, 2016). Taraba state University currently has 11 faculties and 48 Departments (TSU Registry, 2024). However, it is important to stress here that Taraba State University is blessed with diverse resources that need to be judiciously allocated and utilized optimally for enhanced educational outcomes. This is the focus of the study.

Statement of the Problem

It is very obvious that both staff and students of higher institutions of learning often complain of clashes in lecture venues, inappropriate venues in terms of class size and resources availability, course allocation to lecturers, time management, among others. There is the need to find solution to these problems to engender smooth operation of faculties and departments in higher institutions of learning. Thus, how can AI algorithms be effectively utilized to optimize faculty resources allocation/ courses allocations and time management, considering factors such as appropriateness of venue in terms of size and availability of relevant instructional resources, teaching competences and preferences, research commitment and administrative duties? This study therefore investigated the impact of AI-Driven technologies on resources allocation, work load and time management, with focus on Taraba State University, Jalingo, Nigeria.

Purpose of the Study

The main purpose of this study is to investigate the impact of AI-Driven technologies on resources allocation, work load and time management in Taraba State University, Jalingo, with the following specific objectives:

i. To determine the perceived impact of AI-driven Technologies in resources allocation in Taraba State University Jalingo.
ii. To find out the perceived impact of AI-driven technologies on faculty workload management and students course scheduling in Taraba State University Jalingo.
iii. To examine the perceived impact of AI-Driven technologies on time management among academic staff of Taraba State University, Jalingo.

Research Questions

The following research questions guided the study:

i. What is the perceived impact of AI-driven technologies on resources allocation in Taraba State University, Jalingo?
ii. What is the perceived impact of AI-Driven technologies on faculty workload management, and students' course scheduling?
iii. What is the perceived impact of AI-Driven technologies on time management among academic staff of Taraba State University, Jalingo?

Research Hypotheses

The following null hypotheses guided the study and were tested at 0.05 level of significance:

H01: There is no significant impact of AI-driven technologies on resource allocation and optimization in Taraba State University Jalingo.

H02: There is no significant impact of AI-driven technologies on faculty workload management, and students' course scheduling in Taraba State University Jalingo.

H03: There is no significant impact of AI-Driven technologies on time management among academic staff of Taraba State University, Jalingo.

Methodology

Descriptive survey design was adopted for this study. The population comprises 59 participants made up of all the Deans of Faculties and Heads of Departments in Taraba State University. The total population of Deans of Faculties is 11, while Heads of Departments have a population of 48 in Taraba State University, Jalingo (TSU Registry, 2024). All the Deans and Heads of Departments were used because of their manageable size. The instrument for data collection was a researcher-designed questionnaire titled "AI-Driven Technology Questionnaire (AIDTQ). The instrument was designed on a four-point rating scale of Strongly agreed (SA), Agreed (A), Disagreed, (D), and Strongly disagreed (SD). They were scored 4, 3, 2 and 1 respectively. The instrument was validated by two experts, one from Educational Administration and Planning and one from Measurement and Evaluation, all in Department of Educational Foundations, Faculty of Education, Taraba State University, Jalingo. To ascertain reliability of the instrument, 5 Deans of faculties, 5 heads of Departments from Benue State University, Makurdi were randomly selected for the trial test using the balloting method. Cronbach's Alpha method of estimating reliability was used to arrive at a reliability coefficient of 0.87, which was considered reliable for the study. Cronbach Alpha was used because the items were not dichotomously scored. The researchers, with the help of 3 trained research assistants administered and collected the completed questionnaire for analysis. Data generated from the study were analysed using both descriptive and inferential statistics. Descriptive statistics of mean and standard deviation were used to answer the research questions. The decision rule for the research questions was 2.50. This means that items that scored 2.50 and above were accepted, while items that scored less than 2.50 were rejected. Thus, 3.50 - 4.00 stood for Strongly Agreed (SA), 2.50 – 3.49 was for Agreed (A), 2.00-2.49 stood for Disagreed (D), while 0.00 -1.99 was for Strongly Disagreed (SD). Inferential statistics of chi-square goodness of fit was used to test all the null hypotheses at 0.05 level of significance. Chi-square goodness of fit was used to establish frequency of responses on the association between AI-driven technology and resource allocation, AI-driven technology and workload management, as well as AI-driven technology and time management. The decision rule was that if chi square calculated was greater than chi square tabulated, reject null hypothesis. Also, if p value is less than 0.05, reject null hypothesis.

Results and Discussion

Research Question 1: What is the impact of AI-Driven technologies on resource allocation in Taraba State University, Jalingo??

Table 1: Mean Ratings of Respondents with Regard to the Impact of AI-Driven Technology on Resource Allocation in Taraba State University, Jalingo.

S/n	Item description	Response							
	CLUSTER A: AI and resource allocation	SA	A	D	SD	**Sum**	**X**	**Std.D**	**Dec**
1	AI algorithms can efficiently allocate resources (such as time, money, manpower and materials) in education	80	69	24	4	177	3	0.91	**A**
2	AI-Driven technologies can efficiently optimize resources utilization for effective outcome	32	81	36	6	155	2.63	0.849	**A**
3	AI Algorithms can assist in optimizing lectures schedules	16	105	36	2	159	2.69	0.65	**A**
4	AI –Driven technologies are effective in allocating assets to maximize return	16	87	36	8	147	2.49	0.817	**D**
5	AI algorithms helps in minimizing waste	64	63	34	5	166	2.81	0.937	**A**
6	AI Driven technologies can streamline resource allocations to specific departments	64	84	24	3	175	2.97	0.83	**A**
	Cluster Mean						**2.77**	**0.96**	**A**

Source: Field Survey, 2024

Hypothesis 1: There is no significant impact of AI-driven technologies on resource allocation in Taraba State University Jalingo.

Table 2: Chi-square Test to Determine Significant Impact of AI-driven Technologies on Resource Allocation in Taraba State University Jalingo

AI_ResourceAllocation			
	Observed N	Expected N	Residual
Disagree	11	29.5	-18.5
Agree	48	29.5	18.5
Total	59		

Test Statistics

	AI_ResourceAllocation
Chi-Square	23.203[a]
Df	1
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 29.5.

Table 1 shows responses on impact of AI-Driven technologies on resource allocation in Taraba State University, Jalingo. Result indicated that respondents agreed more that AI-driven technologies had impact on resource allocation in many ways. AI algorithms for resources allocation can efficiently allocate resources (such as time, money, manpower and materials) in education; can efficiently optimize resources utilization for effective outcome; can assist in optimizing lectures schedules; helps in minimizing waste; and can streamline resource allocations to specific departments. The grand mean of 2.77 with standard deviation of 0.96 shows the high level of agreement among respondents that AI-driven technologies have impact on resource allocation in Taraba State University, Jalingo.

Chi square goodness of fit test was performed to evaluate whether the distribution of respondents' perception on impact of AI-driven technologies on resource allocation followed the general population. The observed and expected frequencies for the responses are presented in Table 2. The distribution of respondents significantly differed from that of the general population, because the expected frequencies were 29.5 for each distribution but 11 (disagreed) and 48 (agreed) were observed from the responses: χ^2 (df = 1, N = 59) = 23.203, p = < .001. Thus, the calculated value of the Chi square is 23.203 which is significantly greater than the table value of chi square of 3.841 at N=59, df=1. Therefore, the null hypothesis suggesting no significant impact of AI-driven technologies on resource allocation in Taraba State University Jalingo is rejected.

Research Question 2: What is the perceived impact of AI-Driven technologies on faculty workload management

Table 3: Table 1: Mean Ratings of Respondents with Regard to the Impact of AI-Driven Technology on Workload Management in Taraba State University, Jalingo.

s/n	Item description	Response							
	CLUSTER B: AI and workload management	SA	A	D	SD	**Sum**	**X**	**Std.D**	**Dec**
7	AI-Driven technologies help balance faculty workload for improved productivity	76	87	18	2	183	3.1	0.781	**A**
8	AI Algorithms can forecast workload demand based on historical data	60	78	30	3	1	2.9	0.845	**A**
9	AI Algorithms can help to minimize time table conflicts and maximize workload saturation	112	66	14	2	194	3.29	0.811	**A**
10	AI predictive analytics and machine learning algorithms help identify usage pattern in order to distribute workload efficiently	92	72	22	1	187	3.17	0.791	**A**

11	AI-Driven technologies can help reduce work overload	112	75	10	1	198	3.36	0.713	**A**
12	AI Algorithms can help in planning for future workload requirements	64	84	28	1	177	3	0.766	**A**
	Cluster Mean						3.14	**0.85**	**A**

Source: Field Survey, 2024

Hypothesis 2: There is no significant impact of AI-driven technologies on workload management in Taraba State University Jalingo.

Table 4: Chi-square test to determine significant impact of AI-driven technologies on workload management in Taraba State University Jalingo

AI_Workload

	Observed N	Expected N	Residual
D	2	29.5	-27.5
A	57	29.5	27.5
Total	59		

Test Statistics

	AI_Workload
Chi-Square	51.271[a]
Df	1
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 29.5.

Table 3 shows staff responses on impact of AI-Driven technologies on workload management in Taraba State University, Jalingo. According to the result, AI-driven technologies had impact on workload management. AI-Driven technologies help balance faculty workload for improved productivity; can forecast workload demand based on historical data; can minimize time table conflicts and maximize workload saturation; help identify usage pattern in order to distribute workload efficiently; and can help reduce work overload and can help in planning for future workload requirements A grand mean of 3.14 with standard deviation of 0.85 shows high level of agreement among respondents that AI-driven technologies have impact on workload management in Taraba State University, Jalingo.

Further, hypothesis was carried out using chi square goodness of fit to evaluate whether the distribution of respondents' perception on impact of AI-driven technologies on workload management followed the general population. Observed and expected frequencies for the responses are presented in Table 4. Distribution of respondents significantly differed from that of the general population, because instead of the expected frequencies of 29.5 for each distribution, 2 (disagreed) and 57 (agreed) were observed. This implies that, χ^2 (df = 1, N = 59) = 51.271, p = < .001. The calculated value of the Chi square is 51.271, which is greater than the chi square table value of 3.841 at N=59, df=1. Thus, the null hypothesis suggesting no significant impact of AI-driven technologies on workload management in Taraba State University Jalingo is rejected.

Research Question 3: What is the perceived impact of AI-Driven technologies on time management among academic staff of Taraba State University, Jalingo?

Table 5: Mean Ratings of Respondents with Regard to the Impact of AI-Driven Technology on Time Management Among Academic Staff in Taraba State University, Jalingo.

s/n	Item description	Response							
	CLUSTER C: AI and time management	SA	A	D	SD	**Sum**	**X**	**Std.D**	**Dec**
13	AI-Driven technologies help control time allotted for lectures	20	96	38	3	157	2.66	0.71	**A**
14	AI-Driven technologies can keep track of staff resumption and closing times	76	66	32	2	176	2.98	0.861	**A**
15	AI can be used to prompt students making presentations about time used and time left	40	93	28	4	165	2.8	0.805	**A**
16	AI can provide solution for proper timing of administrative tasks	136	45	18	1	200	3.39	0.81	**A**
17	AI-driven technologies can be effective in regulating exam time duration for CBT and PPT formats	88	78	18	2	186	3.15	0.805	**A**
18	AI can be used to manage time during staff meetings	68	108	12	0	188	3.19	0.601	**A**
	Cluster Mean						**3.03**	**0.89**	**A**

Source: Field Survey, 2024

Hypothesis 3: There is no significant impact of AI-driven technologies on time management in Taraba State University Jalingo

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Table 6: Chi-square test to determine significant impact of AI-driven technologies on Time management in Taraba State University Jalingo

AI_TimeManagement

	Observed N	Expected N	Residual
D	6	29.5	-23.5
A	53	29.5	23.5
Total	59		

Test Statistics

	AI_TimeManagement
Chi-Square	37.441[a]
Df	1
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 29.5.

Table 5 shows respondents perception on impact of AI-Driven technologies on time management in Taraba State University, Jalingo. Based on the result, AI-driven technologies had impact on time management. Respondents agreed that AI-Driven technologies help institutions of learning to control time allotted for lectures; can keep track of staff resumption and closing times; can be used to prompt students making presentations about time used and time left; can provide solution for proper timing of administrative task; and can be effective in regulating exam time duration for CBT and PPT formats. Respondents also agreed that AI can equally be used in Taraba State University to manage time during staff meetings. A grand mean of 3.03 with standard deviation of 0.89 shows high level of agreement among participants in favour of AI-driven technologies having impact on time management in Taraba State University, Jalingo.

Also, hypothesis testing was carried out using chi square goodness of fit to evaluate whether the distribution of respondents' perception on impact of AI-driven technologies on time management followed the general population. Observed and expected frequencies for each responses are presented in Table 6.

Respondents distribution significantly differed from that of the general population. Instead of the expected frequencies of 29.5 for each distribution, it was observed that 6 (disagreed) and 53 (agreed). The implication is that, χ^2 (df = 1, N = 59) = 37.441, p = < .001. The calculated value of the Chi square is 37.441, which is significantly greater than the table value of chi square (3.841) at N=59, df=1. Consequently, the null hypothesis suggesting no significant impact of AI-driven technologies on time management in Taraba State University Jalingo is rejected.

Discussion of Findings

Findings on the impact of AI-driven technologies on resource allocation in Taraba State University Jalingo show that AI-driven technologies have great and positive impact on resource allocation. This finding is in harmony with Chatterjee, et al. (2020) whose findings show that perceived usefulness and perceived ease of use directly impact the behavioral intention of the employees to adopt an AI integrated CRM system in organizations. It also agrees with the submissions of Bhardwaj et al. (2020) who confirmed that increased use of AI at work results better Human Resource functional performance. This implies that the potentials of AI in educational management have been recognised by Deans of Faculties and Heads of Departments in Taraba State University, Jalingo. It therefore calls for more awareness to enable more usage of AI.

The study also finds that AI-driven technologies had impact on workload management. This is coterminous with the findings D'Souza and Siddique (2022) who reported that the use of artificial intelligence had significant impact on workload of teachers and the entire school processes from admission to graduation. Findings of this study are also in alignment with Al-Omari (2024) who found that AI plays a significant role in reducing educators' workload, improving administrative efficiency, and positive impact on student learning outcomes. This finding also affirms that of Rozman et al. (2023) that, employees perceived reduction of their workload by AI.

This study finds that AI-driven technologies had impact on time management. This is supported by the findings of Krichen (2024), who submitted that AI is a powerful tool to help with time management, helping individuals and institutions to boost their productivity and efficiency through better time management. This has implications for deepening the application of new technology into educational management as enshrined in the National ICT Policy developed in 2012. Schools and organisations who do not adopt the tools made available through AI may find huge gaps when rated against global standards and best practices.

Conclusion

Based on the findings, the study concludes that AI-driven technologies have impact on resources allocation, work load and time management in Taraba State University, Jalingo, Taraba State, Nigeria. These perceptions by Deans and HoD's reflect their readiness to deploy AI-driven technologies in the process of educational management, because the advantages are fully known to them.

Recommendations

Based on the findings of the study, the following recommendations are considered germane:

1. AI-driven technologies should be deployed by the management of Taraba State University Jalingo in resource allocation across all sections of the University.
2. Deans and Heads of Department should constantly adopt AI in creating schedule of activities for staff and also for determining workload distribution
3. Activities in the school such as meetings and examinations should be managed and time-regulated using AI for time management.

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