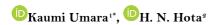


# Relationship Directive and Participatory Administrative Style of Head of Departments and Lecturers' Job Performance in Tertiary Institutions in Borno State



<sup>1,2</sup>School of Education, Noida International University, Plot 1, Yamuna Expy, Sector 17A, Uttar Pradesh, 203201, India; umarakaumi@gmail.com (K.U.) dir.soe@niu.edu.in (H.N.H.).

Abstract. The role of HODs is central to the effective administration of departments and the promotion of quality teaching and learning. This research examines how the administrative styles of HODs influence the motivation, performance, and overall job productivity of lecturers. In the context of Borno State, which faces unique socio-political challenges, understanding these administrative styles becomes particularly important for maintaining educational resilience. The study employs a correlational research design to explore the relationships between administrative styles and effective teaching and learning. Data were collected from HODs and academic staff in five higher institutions using structured questionnaires. The research instruments included the Path-Goal Leadership Questionnaire (PGLQ) and the Teacher Job Performance Questionnaire (TJPQ). Statistical analyses, including Pearson's Product Moment Correlation Coefficient and Multiple Regression Analysis, were used to assess relationships between variables. Findings revealed that directive administrative styles had a weak positive relationship with effective teaching and learning, signifying that authoritative leadership approaches could hinder lecturer performance. Conversely, a strong positive relationship was found between participatory administrative styles and effective teaching and learning, emphasizing the benefits of involving lecturers in decision-making processes and fostering collaboration. Results indicated that lecturers generally exhibited positive attitudes toward their roles, but there was room for improvement in certain areas. The study recommended that tertiary institutions in Borno State and beyond include promoting participatory leadership training for HODs, enhancing communication channels between administrators and lecturers, and prioritizing lecturer welfare and resource management. These measures can help create a conducive environment for effective teaching and learning in challenging educational landscapes.

Keywords: Administrative Style, Directive, Job Performance, Participatory.

#### 1. INTRODUCTION

The Head of Department serves as the coordinator responsible for overseeing all departmental activities and cultivating a harmonious rapport with the faculty, who function as subordinates, to ensure the successful administration of the department. According to Nwadani (2008), the Head of Department occupies a central role that significantly influences the triumph or downfall of departmental administration, emphasizing the need for close collaboration with lecturers to realize departmental objectives. The author emphasizes that the Head of Department must possess the ability to judiciously delegate responsibilities, inspire lecturers, maintain effective communication, and attend to their well-being (Nwadani 2008; Agusmidah & Shalihah, 2023; Aldouri, 2024). These functions collectively represent the administrative mechanisms through which the Head of Department facilitates seamless administration and fosters effective teaching and learning within the department.

Viewed as the administrative leader of the department, the Head of Department shoulders the responsibility for the day-to-day administrative tasks, encompassing planning, control, and coordination. This entails managing human, material, financial, and temporal resources to realize the department's goals and objectives (Hillinger & Heck, 2012; Abed et al., 2024; Arif et al., 2024). Adeyemi (2011) adds that this role includes offering effective leadership, safeguarding the welfare of lecturers, and overseeing instructional facilities within the department, factors that can significantly enhance both lecturer and Head of Department performance.

The Head of Department is entrusted with the duty of elevating the quality of administration and instructional practices, leveraging various strategies to motivate lecturers in their respective roles for improved productivity and better output (Ukaigwe et al., 2019; Hassan et al., 2024; Baghdadi et al., 2020). In practice, these administrative strategies represent the functions and activities of the Head of Department aimed at inspiring lecturers to enhance their performance and increase productivity. The administrative practices of the Head of Department play a pivotal role in ensuring that lecturers effectively carry out their instructional responsibilities for the delivery of high-quality education within the department (Ukaigweet al., 2019; Abed, 2024; Honga et al., 2022; Ghasemi et al., 2018).

As elucidated by Ekpo and Eze (2015), these administrative practices encompass involving lecturers in decision-making processes, effective delegation of duties, provision of lecturer welfare, fostering open lines of communication, and ensuring the adequate availability of instructional resources within the department. Additionally, Ani (2007) highlights that the Head of Department employs various administrative practices to motivate lecturers, such as recognizing their efforts, organizing workshops to update their knowledge, and implementing effective administrative styles

In the dynamic landscape of education, the role of a Head of Department in a higher institution cannot be overstated. These academic leaders play a pivotal role in shaping the quality of education and, consequently, the future of their students. In the context of Borno State, located in the northeastern region of Nigeria, the challenges

in the educational sector are particularly unique and demanding due to the region's historical and contemporary socio-political challenges. Understanding the administrative style of Head of Departments in promoting effective teaching and learning in this context is not only academically pertinent but also socially significant.

Borno State, with its diverse cultural tapestry, has been grappling with educational obstacles for decades. While these obstacles include infrastructure deficiencies and resource constraints, the administrative prowess of Head of Departments within the higher institutions has proven to be a critical factor in overcoming these challenges. This study aims to delve into the intricate web of administrative styles employed by Head of Departments and their impact on promoting effective teaching and learning in selected higher institutions in Borno State.

The administrative style of Head of Departments encompasses a wide spectrum of leadership traits, including communication skills, decision-making processes, organizational strategies, and the ability to motivate and engage both faculty and students. In a region marred by security concerns and limited access to educational resources, the role of Head of Departments takes on added significance. Effective administrative practices can contribute to the resilience of higher education institutions in the face of adversity.

Efficient administration of faculty welfare benefits serves as a driving force that inspires teaching staff to fulfill their professional responsibilities as anticipated. According to Ukaigwe and Nwabueze (2015), favorable service conditions encompassing aspects such as welfare benefits, acknowledgment and commendation, enhanced salary structures, a healthy work-life equilibrium, punctual salary disbursements, regular career advancement and job enrichment opportunities, reliable job security, and appropriate allowances and leave policies, all contribute positively to augmenting staff's enthusiasm to work diligently and enhance overall productivity. Kigenyi (2017) further demonstrates a positive correlation between staff welfare and the performance of lecturers within chosen higher education institutions. This underscores the significance of factors like housing, meals, healthcare, allowances, and the overall departmental environment, which have statistically significant impacts on lecturers' performance in selected higher educational establishments.

In Nigeria, there seems to be a noticeable deficiency in the administrative capabilities of Heads of Departments within certain higher education institutions, leading to subpar performance among lecturers. These deficiencies manifest as a lack of commitment to their job responsibilities, resulting in a decline in the quality of teaching, irregular attendance in classes by lecturers, deteriorating infrastructure that hinders effective instructional delivery, and ultimately, poor job performance among lecturers within the system. These are aspects of educational administration that demand the focused attention of Heads of Departments in order to ensure that lecturers can teach effectively and efficiently, thereby enhancing their job performance and overall productivity.

# 1.1. Objectives of the Study

The objectives of the study are to determine the relationship between:

Directive administrative styles of Head of Departments and effective teaching and learning in higher institution in Borno State, Nigeria;

Participative administrative styles of Head of Departments and effective teaching and learning in higher institution in Borno State, Nigeria;

Determine the level of teaching and learning by the lecturers of higher institutions in Borno State, Nigeria.

# 1.2. Research Questions

The following research questions will be answered:

What is the level of relationship between directive administrative styles of Head of Departments and effective teaching and learning in higher institution in Borno State, Nigeria?

What is the level of relationship between participative administrative styles of Head of Departments and effective teaching and learning in higher institution in Borno State, Nigeria?

What is the level of performance of lectures of higher institutions in Borno State, Nigeria?

# 1.3. Hypotheses

The following null hypotheses were tested at 0.05 level of significance.

H01: There is no significant relationship between directive administrative styles of Head of Departments and Lecturers Job Performance in higher institution in Borno State, Nigeria;

H03: There is no significant relationship between participative administrative styles of Head of Departments and Lecturers Job Performance in higher institution in Borno State, Nigeria;

#### 2. METHODOLOGY

This study adopted a correlational research design. According to Igoni (2004), correlational research establishes the extent of relationship or association between two or more variables that can be used to make predictions on existing conditions and the variables are related, dependent or correlated. This study seeks to correlate 'administrative style of HODs' and 'effective teaching and learning' in higher institution in Borno State, Nigeria, hence, correlational research design is appropriate in this context. The population of this study were all the employees of five higher institution in Borno State, Nigeria. Simple random sampling technique was used to

obtain the sample from the HODs and academic staff in the five (5) higher institution. This sample size were determine using Research Advisors' (2006) Sample Size Table where degree of accuracy/margin of error at 0.05 will be used.

Two research instruments were adopted: Indvik's (1985) Path-Goal Leadership Questionnaire (PGLQ) and Ahmed (2024) Teacher Job Performance Questionnaire (TJPQ) (Lazic et al., 2023; Kastner et al., 2023; Mitschek et al., 2024; Grosu et al., 2021). The reliability coefficient of the instruments were determine using Cronbach's Alpha which yielded a reliability index of 0.81 and 0.74 respective for directive and participatory administrative style of Head of Departments. Data collected were analyzed using Pearson's Product Moment Correlation Coefficient and Multiple Regression Analysis.

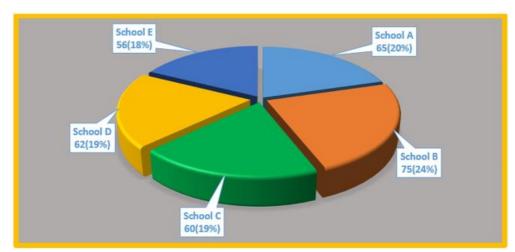


Figure 1: Bar-chart showing the distribution of the respondents based on institutions

Figure 1 gives the distribution of the respondents based on their institutions. The figure revealed that 65(20.44%) of the academic staff involved in this study are from school A, 75(23.58%) are from school B, 60(18.87%) are from school C, 62(19.50%) are from school D while 56(17.61%) of the respondents are from school E.

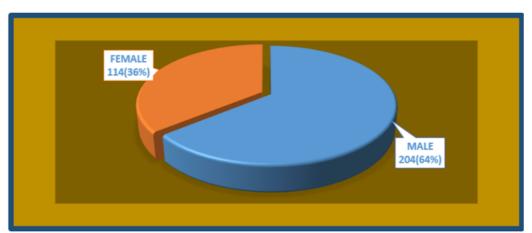


Figure 2: Pie-chart showing the distribution of the respondents by gender

Figure 2 gives the distribution of the respondents by gender. The figure revealed that majority of the respondents 204 (about 64%) of the academic staff involved in this study are male while 114 academic staff representing 36% are female lecturers.

#### 3. RESULTS

Research Question One: What is the level of directive administrative styles of Head of Departments and effective teaching and learning in higher institution in Borno State, Nigeria?

**Table 1:** Frequency and percentage distribution of the respondents on the directive administration style of Head of Departments and effective teaching and learning in higher institutions in Borno.

S/N	T4	Responses					
5/ N	Items	SA	A	DA	SD		
1.	Our HOD lets lecturers know what is expected of them		107 (33.65%)	24 (7.55%)	21 (6.60%)		
2.	Our HOD informs lecturers about what needs to be done and how it needs to be done	113 (35.53%)	150 (47.17%)	42 (13.21%)	13 (4.09%)		
3.	Our HOD asks lectures to follow standard rules and regulations	131 (41.19%)	138 (43.40%)	30 (9.43%)	19 (5.97%)		
4.	Our HOD explains the level of performance that is expected of lecturers	51 (16.04%)	136 (42.77%)	109 (34.28%)	22 (6.92%)		
5.	Our HOD gives vague explanations of what is expected of lecturers on their job	23 (7.23%)	60 (18.87%)	145 (45.60%)	90 (28.30%)		

Results from table 1 revealed that 166(52.20%) strongly agree and 107(33.65%) agree that their HOD lets them know what is expected of them. 113(35.53%) of the respondents strongly agree and 150(47.17%) agree that their HOD informs lecturers about what needs to be done and how it needs to be done. 131(41.19%) of the lecturers strongly agree and 138(43.40%) agree that their HODs asks lecturers to follow standard rules and regulations, 51(16.04%) strongly agree and 136(42.77%) agree that their HOD explains the level of performance that is expected of lecturers while 23(7.23%) strongly agree and 60(18.87%) agree that their HODs gives vague explanations of what is expected of lecturers on their job.

Research Question Two: What is the level of participative administrative styles of Head of Departments and effective teaching and learning in higher institution in Borno State, Nigeria?

**Table 2:** Frequency and percentage distribution of the respondents on the participatory administration style of Head of Departments and effective teaching and learning in higher institutions in Borno

S/N	Items	Responses					
5/ N	items	SA	A	DA	SD		
1.	Our HOD consults with lecturers when facing a problem		84	125	36		
2.	Our HOD listens receptively to lecturers' ideas and suggestions	(22.96%) 52 (16.35%)	(26.42%) $134$ $(42.14%)$	(39.31%) 106 (33.33%)	(11.32%) 26 (8.18%)		
3.	Our HOD acts without consulting the lecturers	27 (8.49%)	150 (47.17%)	87 (27.36%)	54 (16.98%)		
4.	Our HOD asks for suggestions from lecturers concerning how to carry out assignments	40 (12.58%)	127 (39.94%)	113 (35.53%)	38 (11.95%)		
5.	Our HOD asks lecturers for suggestions on what assignments should be made	57 (17.92%)	155 (48.74%)	80 (25.16%)	26 (8.18%)		

Results from table 2 revealed that 73(22.96%) of the respondents strongly agree and 84(26.42%) agree that their HODs consults with lecturers when facing a problem, 52(16.35%) of the respondents strongly agree and 134(42.14%) agree that their HODs listen receptively to lecturers' ideas and suggestions, 27(8.49%) strongly agree and 150(47.17%) agree that their HODs acts without consulting the lecturers, 40(12.58%) strongly agree and 127(39.94%) agree that their HODs asks for suggestions from lecturers concerning how to carry out assignments while 57(17.92%) strongly agree and 155(48.74%) agree that their HODs asks lecturers for suggestions on what assignments should be made.

Research Question Three: What is the level of performance of lectures of higher institutions teaching and learning higher institutions in Borno State, Nigeria?

**Table 3:** Frequency and percentage distribution of the teachers on teaching planning

S/N	T4	Responses					
5/ N	Items	SA	A	DA	SD		
1.	I prepare well for lectures	96 (30.19%)	129 (40.57%)	78 (24.53%)	15 (4.72%)		
2.	I teach at the level of my learners' competence and understanding	131 (41.19%)	101 (31.76%)	64 (20.13%)	22 (6.92%)		
3.	The use of teaching media and laboratory facilities is well planned	107 (33.65%)	104 (32.70%)	82 (25.79%)	25 (7.86%)		
4.	I give the right opportunities for learners to become competent learners	106 (33.33%)	129 (40.57%)	70 (22.01%)	13 (4.09%)		
5.	I plan effectively to engage learners in their classrooms	107 (33.65%)	139 (43.71%)	60 (18.87%)	12 (3.77%)		

Table 3 revealed that majority of the 96(30.19%) of the lecturers strongly agree and 129(40.57%) agree that they prepare well for lectures, 131(41.19%) strongly agree and 101(31.76%) agree that they teach at the level of the learners' competence and understanding, 107(33.65%) strongly agree and 104(32.70%) agree that the use of teaching media and laboratory facilities is well planned, 106(33.33%) strongly agree and 129(40.57%) agree that

they give the right opportunities for learners to become competent learners and finally 107(33.65%) strongly agree and 139(43.71%) agree that they plan effectively to engage learners in their classrooms.

Table 4: Frequency and percentage distribution of the teachers on classroom organization.

S/N	Itama	Responses					
5/ N	Items	SA	A	$\mathbf{D}\mathbf{A}$	SD		
1	I organize students assessment according to the school assessment	59	140	100	19		
1.	policy	(18.55%)	(44.03%)	(31.45%)	(5.97%)		
0	Seating arrangements are organized according to the purpose of	83	143	77	15		
2.	the lecture	(26.10%)	(44.97%)	(24.21%)	(4.72%)		
0	Assessment of learners' work is done regularly to the purpose of	82	143	83	10		
3.	the lecture	(25.79%)	(44.97%)	(26.10%)	(3.14%)		
4	I	38	137	123	20		
4.	I use teaching time effectively	(11.95%)	(43.08%)	(38.68%)	(6.29%)		

Results from table 4 revealed that 59(18.55%) of the lecturers strongly agree and 140(44.03%) agree that they organize students' assessment according to the school assessment policy, 83(26.10%) strongly agree and 143(44.97%) agree that they organize seating arrangement according to the purpose of the lecture, 82(25.79%) strongly agree and 143(44.97%) agree that assessment of learners' work is done regularly to the purpose of the lecture while 38(11.95%) strongly agree and 137(43.08%) agree that they use teaching time effectively.

Table 5: Frequency and percentage distribution of the lecturers monitoring and evaluation in classroom.

C/N	Items	Responses					
S/N		SA	A	DA	SD		
1.	Continuous assessment are regularly marked	102 (32.08%)	114 (35.85%)	85 (26.73%)	17 (5.35%)		
2.	I keep record of marks obtained by my students and monitor their progress	88 (27.67%)	126 (39.62%)	79 (24.84%)	25 (7.86%)		
3.	I do take attendance in every lecture	64 (20.13%)	131 (41.19%)	107 (33.65%)	16 (5.03%)		

Results from table 5 revealed that 102(32.08%) of the lecturers strongly agree and 114(35.85%) agree that continuous assessment are regularly marked, 88(27.67%) strongly and 126(39.62%) agree that they keep record of marks obtained by their students and monitor their progress while 64(20.13%) of the respondents strongly agree and 131(41.19%) agree that they do take attendance in every lecture.

Table 6: Frequency and percentage distribution of the lecturers on classroom atmosphere and discipline

S/N	Items	Responses					
5/ N	Items	SA	A	$\mathbf{D}\mathbf{A}$	SD		
1.	I manage students classes in a disciplined way	71 (22.33%)	170 (53.46%)	69 (21.70%)	8 (2.52%)		
2.	Classroom are cleaned and appropriate for lectures	67 (21.07%)	153 (48.11%)	74 (23.27%)	24 (7.55%)		
3.	I communicate to my students in appropriate way	56 (17.61%)	151 (47.48%)	65 (20.44%)	46 (14.47%)		
4.	I create a non-threatening classroom atmosphere conducive to optimal learning	68 (21.38%)	147 (46.23%)	87 (27.36%)	16 (5.03%)		

Results from table 6 revealed that 71(22.33%) of the lecturers strongly agree and 170(53.46%) agree that they manage students' classes in a disciplined way, 67(21.07%) strongly agree and 153(48.11%) agree that classrooms are cleaned and appropriate for lectures, 56(17.61%) strongly agree and 151(47.48%) agree that they communicate to their students in appropriate way while 68(21.38%) of the respondents strongly agree and 147(46.23%) agree that they create a non-threatening classroom atmosphere conducive to optimal learning.

Table 7: Frequency and percentage distribution of the lecturers on lecturers' leadership style

S/N	There	Responses					
5/ N	Items	SA	A	DA	SD		
1.	I have a positive influence on learners	79 (24.84%)	154 (48.43%)	79 (24.84%)	6 (1.89%)		
2.	I know and support the vision and mission of the school	97 (30.50%)	160 (50.31%)	42 (13.21%)	19 (5.97%)		
3.	I always motivate my students to learn	83 (26.10%)	146 (45.91%)	65 (20.44%)	24 (7.55%)		
4.	I always utilize leaders in classroom management	54 (16.98%)	151 (47.48%)	85 (26.73%)	28 (8.81%)		
5.	I model values that promote a healthy classroom culture	99 (31.13%)	140 (44.03%)	63 (19.81%)	16 (5.03%)		

Results from table 7 revealed that 79(24.84%) of the respondents strongly agree and 154(48.43%) agree that they have a positive influence on learners, 97(30.50%) of the respondents strongly agree and 160(50.31%) agree that they know and support the vision and mission of the school, 83(26.10%) strongly agree and 146(45.91%) agree that they always motivate their students to learn, 54(16.98%) strongly agree and 151(47.48%) agree that they always utilize leaders in classroom management while 99(31.13%) of the respondents strongly agree and 140(44.03%) agree that they model values that promote a healthy classroom culture.

Hypothesis One: There is no significant relationship between directive administrative styles of Head of Departments and effective teaching and learning in higher institution in Borno State, Nigeria.

Table 8: Summary of the Pearson Product Moment Correlation Coefficient on the relationship between directive administrative styles of Head of Departments and effective teaching and learning in higher institution in Borno State

Variable	N	Mean	SD	r	p-value	Remark
Directive Leadership Style	318	15.31	2.61			
				0.305	0.00	Reject H01
Effective teaching and learning	318	29.72	5.33			

Table 8 gives the summary of the Pearson Product Moment Correlation Coefficient on the relationship between directive administrative styles of Head of Departments and effective teaching and learning in higher institution. Results revealed that there was weak positive relationship between directive administrative styles of Head of Departments and effective teaching and learning in higher institution with correlation coefficient r=0.305. The result also revealed that the relationship between directive leadership style of HODs and lecturers' job performance is statistically significant as indicated by the p-value (0.00) which is less than the level of significant  $(\alpha=0.05)$ . Therefore, hypothesis one is rejected.

Hypothesis Two: There is no significant relationship between participative administrative styles of Head of Departments and effective teaching and learning in higher institution in Borno State, Nigeria.

**Table 9:** Summary of the Pearson Product Moment Correlation Coefficient on the relationship between participatory administrative styles of Head of Departments and effective teaching and learning in higher institution in Borno State

Variable	N	Mean	SD	r	p-value	Remark
Participatory Leadership Style	318	15.27	2.83			
				0.79	0.00	Reject H02
Effective teaching and learning	318	29.72	5.33			-

Table 9 gives the summary of the Pearson Product Moment Correlation Coefficient on the relationship between participatory leadership style of Head of Departments and effective teaching and learning in higher institution. Results revealed that there was strong positive relationship between participatory leadership style of HODs and effective teaching and learning in higher institution with Parson Product Moment Correlation Coefficient r=0.709. The result also revealed that the relationship between participatory leadership style of HODs and effective teaching and learning in higher institutions is statistically significant with p-value (0.00) less than the level of significant ( $\alpha=0.05$ ). Therefore, hypothesis two is rejected.

### 4. CONCLUSION AND RECOMMENDATIONS

In conclusion, this study on the "Relationship between Directive and Participatory Administrative Styles of Heads of Departments and Lecturers' Job Performance in Tertiary Institutions in Borno State" has provided valuable insights into the dynamics of administrative styles and their impact on the job performance of lecturers within the context of Borno State's higher education institutions.

The findings of this research shed light on two distinct administrative styles, namely the directive and participatory styles, and their respective associations with lecturers' job performance. It is evident from the analysis that a negative relationship exists between the directive administrative style and lecturers' job performance. This suggests that when administrators rely heavily on top-down, authoritarian approaches, it can adversely affect the motivation and performance of lecturers in these institutions. The findings underscore the importance of fostering a more collaborative and inclusive approach to leadership in order to enhance lecturers' job performance.

Conversely, the study reveals a strong positive relationship between the participatory administrative style and lecturers' job performance. This highlights the significance of involving lecturers in decision-making processes, valuing their input, and creating an environment where their contributions are recognized and appreciated. Such an approach not only boosts morale but also encourages lecturers to excel in their roles, ultimately leading to improved job performance.

In light of these findings, it is recommended that tertiary institutions in Borno State and similar contexts consider adopting a more participatory and inclusive administrative style. By doing so, they can cultivate a positive work environment that empowers lecturers, fosters collaboration, and enhances overall job performance. Additionally, professional development programs for administrators can focus on building skills related to participatory leadership, communication, and teamwork to promote a culture of excellence within the institutions.

Ultimately, this research contributes to the ongoing discourse on effective leadership in higher education

institutions and underscores the pivotal role that administrative styles play in shaping the performance and success of lecturers in the pursuit of academic excellence.

#### REFERENCES

- Abed I., Ganiyevich A., Zafarqizi O., Yuldoshevna S., Hussein L. (2024), The Role of Artificial Intelligence in the Development of English Language Teaching and Learning, Procedia Environmental Science, Engineering and Management 11(1), 45-52.
- Abed I., (2024), A Rhetorical Study of the Effect of Repeated Question in Surah Al-Rahman, VIII. International Congress of Humanities and Educational Research, Iraq, 16-35, https://dx.doi.org/10.47832/IjherCongress8-2
- Adeyemi, T. O. (2011). Principals' leadership styles and teacher's job performance in senior secondary schools in Ondo State, Nigeria. Ado-Ekiti: University of Ado-Ekiti Press.
- Agusmidah, & Shalihah, F. (2023). Indonesian migrant workers: a socio-economic analysis with regard to the integrated services practice implementation. Economic Annals-XXI, 203(5-6), 70-75. doi: https://doi.org/10.21003/ea.V203-08
- Ahmed, A. A. (2024). The Impact of Principal Leadership Styles on Teachers' Job Performance in Primary Schools. Human Nature Journal of Social Sciences, 5(3), 173-181.
- Aldouri S., (2024), Integrating Production Service Quality And Marketing Mix Elements For Telecommunications Performance Excellence In Emerging Markets, Procedia Environmental Science, Engineering and Management, 11(2), 231-242.
- Ani, C. I. (2007). Dynamics of school supervision. Enugu: Cheston Books.
- Arif, M., Tash, M. S., Jamshidi, A., Ameer, I., Ullah, F., Kalita, J., & Balouchzahi, F. (2024). Exploring Multidimensional Aspects of Hope Speech Computationally: A Psycholinguistic and Emotional Perspective.
- Baghdadi, G., Doustmohammadi, A., Jamshidi, A., & Towhidkhah, F. (2020). A new Petri Net Model of Working Memory to Predict the Root Causes of Attention Deficit Disorder Symptoms. bioRxiv, 2020-12.
- Ekpo, S. J. A. & Eze, U. D. (2015). Marketing principles and practice. Zaria: Concept Prints and Design.
- Ghasemi, S., Meybodi, M. R., Fooladi, M. D. T., & Rahmani, A. M. (2018). A cost-aware mechanism for optimized resource provisioning in cloud computing. Cluster Computing, 21, 1381-1394.
- Grosu, V., Kholiavko, N., Zhavoronok, A., Zlati, M. L., & Cosmulese, C. G. (2021). Model of financial management conceptualization in Romanian agriculture. Economic Annals-XXI, 191(7-8(1)), 54-66. doi: https://doi.org/10.21003/ea.V191-05
- Hassan, A. Y., Abdullah, S. S., Al-Rawe, M. F. A., & Hasan, M. A. (2024). The Use of Relevance and Euphemisms in Translating Taboo Expressions in the Subtitles of the TV Show "Friends". Kurdish Studies, 12(2), 337-345.
- Honga, J. D., Mwakalongeb, J., & Jeongc, K. Y. (2022). Design of disaster relief logistics network system by combining three data envelopment analysis-based methods. International Journal of Industrial Engineering & Management (IJIEM), 13(3), 172-185, https://doi.org/10.24867/IJIEM-2022-3-310.
- Hillinger, P. & Heck, R. H. (2012). Exploring the principal's contribution to school effectiveness. School Effectiveness and School Improvement Journal, 9(1), 157-191.
- Indvik, J. (1985). A Path-goal Theory Investigation of Superior-subordinate Relationships (leadership, Downward Communication, Supervision, Organizational). The University of Wisconsin-Madison.
- Kastner, M., Bezjak, M. I., & Babuder, M. (2023). Business Process Improvement. Improvement of Internal Certification Processes, Journal of Engineering, Management and Information Technology, 1(4), 199-206, 10.61552/JEMIT.2023.04.004.
- Kigenyi, G. (2017). School environment and performance of public primary school teachers in Nigeria. International Journal of Technology and Management, 2(1), 1-14
- Lazic, Z., Grujic, M., Skoric, V., & Milicevic, S. (2023). Impact of global crisis on supply chain management quality: case studies. Journal of Engineering, Management and Information Technology, 1(3), 13-21.
- Mitschek, M. R., Sanares, R. N., del Rosario, M. G., & Doctor Jr, J. (2024). Effectiveness And Stakeholders' perception Of The Student Information System Integration In Higher Education Institution, 2(4), Journal of Innovations in Business and Industry, 199-206, 10.61552/JIBI.2024.04.002
- Ukaigwe, P. C. & Nwabueze, A. I. (2015). Principals' service conditions and administration effectiveness in secondary schools in South-East, Nigeria. African Journal of Educational Research and Development (AJERD), 8(1), 11-23.
- Ukaigwe, P. C., Nwabueze, A. I. & Nwokedi, C. U. O. (2019). Principals' leadership skills as determinants of effective administrative performance in public senior secondary schools in Abia State. Review of Education, 31(1), 190-210.