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Effect of Physical Characteristics on Resident's Satisfaction in a High-Density Area of Ilorin Metropolis

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Abstract. This study looked at the impact of a resident's physical attributes on housing satisfaction in Ilorin to figure out how to uncover the significant relationship in Ilorin. The research took a quantitative method. A questionnaire was designed and distributed to 126 household heads, with 94 responses. Households were polled using systematic random sampling to collect information on socio-economic variables and housing satisfaction. To analyze the effect of variables, the data were subjected to descriptive statistics and linear regression using SPSS. The study found that physical factors have a substantial impact on home satisfaction in the studied area. The study discovered that toilet facilities, rendered and painted walls, tiles, a well-equipped kitchen, no finishing wall, electricity and generator as an alternative means of lighting a kitchen without modern facilities, concrete, and a pit toilet are all factors that influence residents' satisfaction. It was also discovered that the most excellent mean score was for bathroom facilities, rendered and painted walls, and tiles. It was suggested that the government make the missing social amenities available and rehabilitate the deteriorating ones as urgent. To improve resident satisfaction in the study region, proper routine management of social amenities should be done.

Keywords: physical characteristics; housing; housing satisfaction; Ilorin; Nigeria.

INTRODUCTION

Housing is seen as a basic need and a requirement for man's survival, making it one of the most crucial basic infrastructures in developing any community [11]. Housing impacts the lives of individuals and the nation; as a result, both nature and society place a high value on the role it plays in ensuring human comfort [7]. The author [4] claimed that shelter is one of man's most fundamental necessities. The right to appropriate housing is universally recognized internationally and in more than one hundred national constitutions worldwide. Despite this right, many 'homeless,' 'inadequately housed,' and 'evicted' people worldwide in cities and rural areas. Housing is inextricably tied to one's quality of life. It is influenced by various factors, including money, employment, education, work-life balance, life satisfaction, and society's perceived quality [14].

Housing has been referred to as "the determinant of the quality of life" since it is the only pillar of individual satisfaction [13].

Housing satisfaction is influenced by residents' perceptions of their neighbourhood and living conditions. This suggests a low level of dissatisfaction and a high degree of agreement between intended and actual circumstances and the satisfaction of residents' everyday housing demands. On the other hand, inconsistency between their existing and ideal home conditions can lead to dissatisfaction [10]. On the other hand, low-income families are more likely than middle-income families to be satisfied with housing with a more significant deficit [8]. Low income is a significant barrier for have-not families, as they cannot obtain non-deficit housing [6].

Many elements can influence resident satisfaction; one of these considerations is physical characteristics [11]. Physical qualities can influence residential satisfaction positively or negatively; for example, when the state of social amenities or infrastructure facilities is regarded as good, satisfaction is found to be substantially more significant, and vice versa. However, most people in developing countries still lack necessities, including shelter, health care, a strong road network, portable water, and reliable energy, to name a few. Moreover, many individuals cannot achieve their basic needs due to leaders' inept administration of public funds, a lack of sufficient workforce to harness available resources, political instability, and local government's lack of preparation [2]. As a result, a research gap has been discovered, and the purpose of this study is to answer questions about the impact of physical features on resident happiness in Ilorin.

This *study aims* to examine the impact of physical characteristics on residents' satisfaction in a high-density area of the Ilorin metropolis to reveal the effect of physical characteristics of residents on housing satisfaction.

Objectives: 1) To identify the physical characteristics of residents in the Ilorin metropolis. 2) To examine the level of residents' satisfaction in the study area. 3) To assess the effect of physical characteristics on residents' satisfaction in the study area.

METHODOLOGY

Quantitative research methodologies were applied in this investigation. The responders were given a questionnaire to fill out and return. A total of 126 questionnaires were given, with 94 valid copies being filled out and returned out of 126. Other social science academics in Nigeria have utilized sample size selection to get sample size [3].

A total of 126 homes are sampled from each of these residential neighbourhoods. The low-density residential neighbourhoods of Kuntu and Adabata were chosen. The sampling method used was systematic random sampling, which is the most basic method and ensures that every subject in a population has an equal chance of being chosen. Following the extensive collection of data, descriptive, mean ranking, and multiple regression using SPSS Version 22 were used to analyze the data acquired from the field.

RESULTS AND DISCUSSION

The socio-economic characteristics of the respondents are disclosed in Table 1.

Table1 – Demographic Data of the Respondents

	N	%
Gender	94	
Male	75	80.20
Female	197	19.80
Age	94	
Less than 30 years	50	53.19
between 31-40 years	20	21.28
between 41-50 years	18	19.15
above 50 years	6	6.38
Marital status	94	
Single	31	32.98
Married	63	67.02
Education	94	
Primary school	14	14.90
O level	29	30.85
OND/NCE	32	34.04
HND	12	12.77
BSC	5	5.32
MSC	1	1.06
PHD	1	1.06
Occupation	94	
Farming	17	18.09
Civil Servant	29	30.85
Business	9	9.57
Retired	14	14.89
Artisan	25	26.60
Religion	94	
Islam	82	87.23
Christianity	12	12.77
Income	94	
Less than #30,000	27	28.72
#31,000- #60,000	39	41.49
#61,0000-#91,000	18	19.15
#91,000 and above	10	10.64
Household Size	94	
6-10	51	54.26
11-15	23	24.47
16-20	14	14.89
21 persons and above	6	6.38
Tribe	94	
Yoruba	78	82.98
Hausa	10	10.64
Igbo	6	6.38

Males made up the majority of the respondents in the research area. Similarly, the study discovered that people under 30 made about half of the total population. In addition, the majority of those who responded to the survey were mar-

ried (63 %). The occupation of the households reveals that roughly 30.85 % of the respondents work as civil servants. Retirees, students, craftspeople, and artisans make up 69.15 % of the overall study region respondents. This suggests that the vast majority of respondents in the research area have a method of earning money. Also, according to an analysis of household income,

most participants earn between N31,000 and N60,000.

Furthermore, the majority of the locals follow Islam as their religion. This is in line with the findings of [12], who found that most residents in the Ilorin metropolitan region practice Islam. In addition, most respondents (51 %) have 6-10 persons in their families. Finally, the Yoruba are the most populous tribe, according to [12].

Table 2 – Physical Characteristics in Low-Density Area of Ilorin Metropolis

Physical Characteristics	N	Mean	S Std. Deviation	Rank	Remark
WC Toilet	94	4.0851	1.02296	1	Good
Tiles	94	4.0213	1.00513	2	Good
Terrazzo	94	3.8723	1.09970	3	Good
Rendered and painted	94	3.8085	1.25532	4	Good
Well Equipped Kitchen	94	3.7553	1.19754	5	Good
Aluminum	94	3.7234	1.13027	6	Good
Well	94	3.7234	1.03076	7	Good
Cemented	94	3.7021	1.14375	8	Good
Generator	94	3.6915	1.98403	9	Good
Sand Crete	94	3.6702	1.19487	10	Good
Bore Hole	94	3.6383	1.04574	11	Good
Pipe Borne	94	3.4894	1.09490	12	Good
Pit Toilet	94	3.4787	1.04448	13	Good
Kerosene Lamp	94	3.4043	1.26422	14	Fair
Rendered without Paint	94	3.4043	1.11026	15	Fair
Corrugated Iron Sheet	94	3.3404	1.10281	16	Fair
Asbestos	94	3.2021	1.23201	17	Fair
Burnt Bricks	94	3.1915	.97580	18	Fair
Electricity from Public main Source	94	3.0745	1.25501	19	Fair
Toilet and Bathroom Facilities	94	3.0745	1.54669	20	Fair
Waste Disposal Facilities	94	3.0213	1.31965	21	Fair
Kitchen without modern Facilities	94	2.9681	1.22213	22	Fair
Clay/Mud Block	94	2.8723	1.17532	23	Fair
No finishing at all	94	2.6809	1.27180	24	Fair

Table 2 depicts the housing situation in Ilorin's low-density areas. The households of the study area agreed that the WC toilet is in good working order (M=4.08, SD=1.02), and it was ranked 1. Tiles under their floor finishes were likewise in good shape (M=4.02, SD=1.00), and terrazzo was ranked 3 (M=3.87, SD=1.00), rendered and painted walls were ranked fourth (M=3.80, SD=1.25), and a well-equipped kitchen was ranked fifth (M=3.75, SD=1.19). On the other hand, toilet and bathroom facilities have (M=3.07, SD=1.54) was ranked 20, waste disposal facilities have (M=3.02, SD=1.31) was ranked 21, kitchen without modern Facilities has (M=2.96, SD=1.22) was ranked 22 clay/mud

block had (M=2.87, SD=1.17) was ranked 23. Finally, buildings with no finishing were placed 24 (M=2.68, SD=1.27), indicating that the bulk of physical characteristics of housing conditions in high-density areas of the Ilorin metropolis were in good condition, with only a few in fair condition.

The contentment of households in the low-density area of Ilorin Metropolis was reported in Table 3.

Table 3 – Ranking Residents Satisfaction

Physical Characteristics	N	Mean	Std. Deviation	Ranking
Toilet and	94	3.6809	1.88248	1

Physical Characteristics	N	Mean	Std. Deviation	Ranking
Bathroom Facilities				
Rendered and painted	94	3.5745	1.20473	2
Tiles	94	3.5426	1.48588	3
Well equipped kitchen	94	3.5000	1.41231	4
No finishing at all	94	3.3617	1.12500	5
Electricity from public main	94	3.3404	1.21419	6
Generator	94	3.2872	1.20592	7
Kitchen without modern Facilities	94	3.1596	1.24696	8
Sand Crete	94	3.1489	1.48075	9
Pit toilet	94	3.0957	1.38400	10
Waste disposal facilities	94	3.0213	1.42918	11
Rendered without Paint	94	2.9787	1.42164	13
Burnt bricks	94	2.9574	1.45849	14
Bore hole	94	2.8723	1.45346	15
Aluminium	94	2.6809	1.71152	16
Cemented	94	2.6596	1.50664	17
Well	94	2.6170	1.52475	18
Terrazzo	94	2.4681	1.47890	19
Clay/Mud Block	94	2.2979	1.48708	20
Corrugated iron sheet	94	2.2234	1.43050	21
Kerosene Lamp	94	1.9894	1.30750	22
Security	94	1.8191	1.29484	23
Pipe borne	94	1.6915	1.20952	24

The family's satisfaction level is moderate, according to them. The Toilet and Bathroom Facilities were placed 1 with (M=3.68, S= 1.88) points. The Rendered and Painted were ranked 2 with (S=3.57, S=1.20). The Tiles were rated 3 with (M=3.54, S=1.48). Their satisfaction with Well Equipped Kitchen was similarly moderate

Table 6 – Coefficient Table

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.943	.228		4.130	.000
Ranking Toilet and Bathroom Facilities in the area	.116	.050	.170	2.295	.024
Ranking Rendered and Painted wall in the area	.159	.040	.298	3.949	.000
Ranking Tile in the area	.073	.029	.179	2.483	.014
Ranking Well Equipped Kitchen facilities in the area	.115	.029	.303	4.024	.000
Rankin their no finishing wall	.059	.032	.139	1.860	.065
Ranking Electricity from public main	.056	.025	.149	2.188	.031
Ranking Generator as a source of Lightning in	.012	.036	.022	.327	.744

(M=3.50, S=1.41), putting it in 4. In addition, they were unhappy with their Kerosene, which was ranked 22 (M=1.98, S=1.30). The Asbestos has (S=1.81, 1.29) and was ranked 23, Pipe-borne has (M=1.69, S=1.20) and was ranked 24. As a result, the table shows that the majority of the household members are satisfied with their physical attributes to a modest degree. However, they are dissatisfied with a few of their physical features.

Table 4 – Model Summary

Model	R	R ²	Adjusted R ²	Std. Error of the Estimate
1	.723a	.523	.481	.37384

The R² value in the model summary table above indicates how much variance in the dependent variable (resident satisfaction in the study area) is explained by the model (which includes physical characteristics variables). This means that the model accounts for 52.3 % of the variance in resident satisfaction in the study area.

Table 5 – ANOVA

Df	Mean ²	F	Sig.
10	1.744	12.476	.000b
114	.140		
124			

The statistical significance of the analysis is shown in the table above. The table reveals a highly significant value of ".000," smaller than .05 (p.0005). This indicates that the regression is accurate and well-suited to the analysis.

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
the area					
Ranking their kitchen without modern facilities in the area	.020	.035	.043	.585	.560
Ranking sand crete in the area	-.056	.029	-.134	-1.943	.055
Ranking /Pit Toilet condition in the area	.042	.029	.100	1.443	.152

The coefficient table above illustrates that physical characteristics have a considerable impact on resident satisfaction. For example, toilet facilities rendered and painted walls, tiles, well-equipped kitchen, no finishing wall, electricity and generator as an alternative means of lighting were the physical characteristics that significantly influenced resident satisfaction, with Beta values of .298, .303, .179, .170, .149, -.134 and .139, respectively, and p values of .000, .000, .014, .024, .031, .055 and .065 respectively.

While kitchens without modern amenities, concrete, and pit toilets have Beta values of .100, .043, and .022, respectively, with p-values of .152, .560, and .744, they were shown to have a lesser influence. As a result, it can be concluded that rendered and painted walls, a well-equipped kitchen, and access to power were the physical characteristics that hurt residents' satisfaction with sanitary services.

CONCLUSIONS

Physical characteristics and resident satisfaction were analyzed using Statistical Package for Social

Science, as shown in the preceding analysis and discussion (SPSS). According to the study, toilet facilities rendered and painted walls, tiles, well-equipped kitchen, no finishing wall, power and generator, kitchen without modern amenities, concrete, and pit toilet ices all impact home satisfaction. It also shows that physical factors have a considerable impact on residents' satisfaction in the study area.

Because the physical qualities impact resident contentment, the government must provide more and better social amenities to improve resident satisfaction. Because the majority of the households in the neighbourhood think that their security is terrible, the government or policymakers must develop better measures to help the area become more secure. To ensure acceptable neighbourhood conditions and resident satisfaction in the research area, proper routine management of social amenities should be implemented.

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Factors Determining Cooperative Societies' Housing Finance Acceptance in Gombe, Nigeria

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Abstract. Housing finance in developing countries is not readily available, and access to which is increasingly becoming difficult. The government has not been able to tackle the problem of housing shortages, especially in cities, as caused by population growth and increased urbanisation rate. There is, therefore, the need for interest groups like cooperative societies to come in. The study aimed at assessing the factors determining cooperative societies' housing finance acceptance in Gombe to identify the descriptive levels of variables, adopting the Theory of Planned Behaviour. Using stratified random sampling, close-ended structured questionnaires designed in 5-point Likert Scale were used to get a total of 283 valid questionnaires used for the analysis. The findings supported the fitness of the traditional variables of TPB in predicting willingness to accept the present (study's) housing financing model. The levels of the research model's constructs were very high performance based on their mean and standard deviation. Thus, all the constructs can fit into the research model. The study recommends a further analysis to determine the statistical relationship among the model's constructs to validate the TPB in this domain.

Keywords: housing finance; cooperative societies; Theory of Planned Behaviour; Gombe; Nigeria.

1. INTRODUCTION

Housing has remained an observable fact facing people. It characterises one of the most basic human needs having a severe impact on people's health, welfare, and productivity worldwide [34]. The increased demand for housing in urban centres of Africa is an outcome of rapid and extensive scale urbanisation, which is mainly due to rural-urban migration and high population growth rates [26]. The migration of rural households to urban areas in search of better opportunities has been placed. It will continue to place immense pressure on affordable land and housing in such urban areas [32].

Finance is an indispensable requirement for housing provision and has often been adjudged to be the sustenance in real estate development. The availability of adequate housing finance is the fulcrum of any effective and sustainable shelter scheme. The development of cities is a direct reflection of how their housing is being financed [24]. For instance, [9] reasoned that where there is a well-structured housing finance system, the city appears to be well organised with well-built houses. It has further been suggested that hous-

ing finance institutions in developing countries should develop informal sector links to tap the immense potential financial resources in the hands of the informal sector [18]. Domestic resource mobilisation through savings is all the more critical for housing provision, given that housing is a local and long-term product. Therefore, the challenge is formalising this financing model and integrating it into the formal financial system [23, 24].

Cooperative societies are means through which people collectively achieve their social and economic needs in a democratic setting [28]. Cooperative societies are seen as an economic tool as they can generate savings needed by private finance organisations to providing housing finance [17, 10]. The activities of cooperative societies reflect how they can serve to meet a diversity of socio-economic problems.

This is corroborated by [8] in their study of cooperatives' activities in Lagos Metropolis.

Academics are confident in the involvement of cooperative societies in housing. This may be due to the track record of studies on cooperative so-

cieties and housing [28]. Furthermore, researchers by various authors like [30, 20, 27, 29, 11] on cooperative housing have agreed that cooperative societies should have a more defined role in housing finance and provision. Hence, the study attempts to apply the Theory of Planned Behaviour (TPB) in the context of cooperative housing financing in Gombe and expects to identify the behavioural level regarding cooperative's housing financing using the TPB.

The Theory of Planned Behaviour. The Theory of Planned Behaviour is a theory that has been used to explain a variety of human behaviours in different contexts or domains. The underlying premise is that behaviour is planned and purposeful [1]. The theory holds that individuals make rational decisions to engage in (or not) a chosen behaviour. The decisions are products of an individual's evaluation of the favourableness or otherwise of the outcomes from engaging in the behaviour in question [33, 12]. The TPB was developed as an extension of the Theory of Reasoned Action (TRA) wherein, attitude and subjective norms are the components that contribute to the intention, which can lead to actual behaviour [2]. However, it was later revealed that intention could only accurately predict behaviour when the behaviour is under the individual's voluntary control [1]; therefore, it added its perceived behavioural control in the TRA and named the new model TPB. This theory has been widely investigated and has survived the rigour of establishing the delicate relationship between behavioural intention and its determinants; attitude, subjective norm and perceived behavioural control in some contexts, including in-home financing [21, 16]. The constructs used in the study (as adopted from TPB with an added construct) are;

Attitude: Attitude toward a behaviour is the individual's positive or negative feelings about performing a behaviour. Attitude is an evaluative disposition based upon cognitions, affective reactions, behavioural intentions and past behaviours, and it describes general individual feelings of favour or disfavour toward a specific behaviour [19]. [14] argued that attitude is a strong indicator of intention to perform a given action. Previous researchers define and explain attitude [5, 4] as the person's favour or disfavour toward action. Attitude is a psychological tendency expressed by evaluating a particular entity with some degree of favour or disfavour.

Subjective Norm: Subjective norm denotes a persons' perception, as affected by the view of other people who are close or important to him, regarding the performance of specific behaviour [14]. This is the social element of the theory of planned behaviour that considers perceived social influence to positively or negatively impact intention to carry out or perform a behaviour. This can be described as complying with the expectations of others about engaging in the behaviour [6, 13]. Subjective norm is the second determinant of intention in the TPB model is characterised by [3, 31] as the measure of perception that a person holds about the level of a social force to perform or not perform a behaviour.

Perceived Behavioural Control: Perceived behavioural control being one of the components of the traditional TPB model, is explained as one's ability to control his decision. This can determine one's behaviour [7]. It is described as the perceived ability and confidence a person possesses in performing a behaviour. Similarly, [33] asserted that perceived behavioural control embraces two components of resource availability needed to engage in the said behaviour and one's confidence in his ability to conduct the behaviour.

Cognitive perception: Attitude, subjective norm and perceived behavioural control are the traditional variables of the TBP model which can explain people's intention to engage in a specific behaviour. Authors [3, 12] further explained the model's flexibility in accommodating additional variable(s) to suit different contexts. Functional elements to be reflected will largely depend on the specific behaviour and population under study, underlying the fact that people's varying understandings and dispositions can lead to different beliefs regarding the target behaviour. Authors [12, 14] elucidate that incorporating other variables in the original TPB model can give a better understanding of the fundamental explanatory variables of the model, hence, encouraging knowledge on possible origins of behavioural, normative and control beliefs and direct effect of such added variable(s) on intention to perform the said behaviour.

The study's main objective is to examine the factors determining cooperative societies' housing finance acceptance in academic institutions to identify the descriptive levels of variables adopting the Theory of Planned Behaviour (TPB). This is achievable through the following specific objectives: 1) To identify the level of behavioural

attitude, subjective norms of the respondents in Gombe. 2) To identify the respondents' perceived behavioural control and cognitive perception towards the cooperative society's housing financing in Gombe.

METHODOLOGY

A descriptive survey design using a quantitative approach was adopted for the study. Two cooperative societies, each from a federal and a state institution, were used; a sample size of 283 was randomly selected from the population which comprised the cooperative societies' members. The questionnaire was designed in a 5-point Likert scale ranging from "very high" to "very low". The data collected were analysed using mean and standard deviation.

RESULTS AND DISCUSSION

Respondents' Demographics. Analysis of the respondents' demographic characteristics shows that more than half of the respondents are 21-40 years (55.1%), with 43.1 % in the range of 41-60 years and 1.8 % above 60 years. The gender distribution of the respondents indicated that 69.6 % are male, with 30.4 % female. Respondents' educational background shows that more than half (53.4%) possessed HND or degree. At the same time, 27.2 % have masters and above, with only 19.4 % having a Diploma or NCE.

The Level of Behavioural Attitude. Descriptive analysis was carried out to identify the level of the respondents' attitude towards cooperative societies' housing financing in the study area. As shown in table 1, the findings revealed that the indicator with the highest mean value is 'the idea of cooperative's housing financing being wise (mean=4.375, SD=.625). On the other hand, the least level is 'likelihood to choose cooperative's housing financing' (M=4.237, SD=.562), and the average mean of the construct is M=4.30.

Table 1 – Descriptive Statistics for Behavioural Attitude

SN	Indicators	Mean	Std. Dev.	Rank	Level
1	The idea of cooperative's housing financing being wise	4.375	.625	1st	Very High
2	The goodness of the idea of cooperative's	4.335	.593	2nd	Very High

SN	Indicators	Mean	Std. Dev.	Rank	Level
	housing financing				
3	Importance of the idea of cooperative's housing financing	4.318	.623	3rd	Very High
4	Reasonableness of the idea of cooperative's housing financing	4.244	.699	4th	Very High
5	likelihood to choose cooperative's housing financing	4.237	.562	5th	Very High

The Level of Subjective Norm. The findings presented in Table 2 show that all construct items measured very high for the subjective norm. Indicators with the highest and the least identified levels are; respondents' perception of how their family and friends see the idea of accepting cooperative's housing financing being wise, with a mean of 4.339 and standard deviation of 0.617 and what will be their tolerance level for one's acceptance of cooperative's housing financing (M=4.042, SD=.882) respectively. The overall mean value of the construct is 4.202.

Table 2 – Descriptive statistics for subjective norm

SN	Indicators	Mean	Std. Dev.	Rank	Level
1	Family and friends' perspective of how wise your idea of accepting cooperative's housing financing	4.339	.617	1st	Very High
2	Family and friends' agreement for your accepting cooperative's housing financing	4.226	.733	2nd	Very High
3	Family and friends' recommendation level	4.226	.693	3rd	Very High
4	What will be their approval level of you accepting cooperative's housing financing	4.180	.816	4th	High
5	What will be their tolerance level for you to accept cooperative's housing financing	4.042	.882	5th	High

The Level of Perceived Behavioural Control. The results in table 3 show that the opportunity to decide on accepting cooperative's housing financing (M=4.3392, SD=.76593) recorded the highest level. The minor level recorded is 'having

resources to help one accept cooperative's housing financing' ($M=4.0424$, $SD=.82834$), and the overall mean 4.1865.

Table 3 – Descriptive Statistics for Perceived Behavioural Control

SN	Indicators	Mean	Std. Dev.	Rank	Level
1	Opportunity to decide on accepting cooperative's housing financing	4.3392	.76593	1st	Very High
2	Having skill and knowledge to decide on accepting cooperative's housing financing	4.2792	.72186	2nd	Very High
3	Ability to choose cooperative's housing financing	4.2261	.76614	3rd	Very High
4	The time you have to decide on cooperative's housing financing	4.0459	.78189	4th	High
5	Having resources to help one in accepting cooperative's housing financing	4.0424	.82834	5th	High

Descriptive Level of Cognitive Perception. The results as presented in Table 4 shows the variable with the highest level as 'Advantage of using cooperative housing loan' ($M=4.3922$, $SD=.55691$), the least identified level is 'Difficulty level of obtaining cooperative housing loan' ($M=2.6608$, $SD=.86179$), and the average mean of the construct is $M=4.0242$.

Table 4 – Descriptive Statistics for Cognitive Perception

SN	Indicators	Mean	Std. Dev.	Rank	Level
1	Advantage of using a cooperative housing loan	4.3922	.55691	1st	Very High
2	Security of your	4.3286	.75427	2nd	Very

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SN	Indicators	Mean	Std. Dev.	Rank	Level
	investment/income in the cooperative society				High
3	Importance of cooperative's housing financing	4.3110	.56693	3rd	Very High
4	Effectiveness of funds management of the cooperative society	4.2120	.80618	4th	Very High
5	The reality of obtaining a housing loan from the cooperative society	4.1767	.91319	5th	High
6	Ease of obtaining housing loan in the cooperative society	4.0883	.99786	6th	High
7	The difficulty level of obtaining a cooperative housing loan	2.6608	.86179	7th	Moderate

CONCLUSIONS

This study aimed at identifying the levels of the determinants of housing finance acceptance in the study area. The findings supported TPB in predicting willingness to accept the present (study's) housing financing model. Furthermore, this study contributes to the consumer behaviour literature by examining the consumer factors embedded in the TPB model regarding housing financing. The constructs levels are generally high, indicating that the operational items fit well in the model's constructs. This also revealed that people would find the cooperative's housing financing model more promising if they perceive that the acceptance is supported by the people close and essential to them and have voluntary control of the factors. Finally, the study encouraged further analysis to determine the model's constructs' statistical relationship to validate the TPB in the cooperative housing financing domain.

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Relationship Between Inflation and Unemployment: Testing Philips Curve Hypotheses and Investigating the Causes of Inflation and Unemployment in Nigeria

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Abstract. The attainment of full employment and price stability are one of the most widely used measures of economic health. Inflation and unemployment are an integral part of an economy; however, there is a need to balance both such that neither inflation nor unemployment is too high. The persistent rise in inflation and unemployment rates has called for the need to investigate the relevance of Philip's postulation of a trade-off between inflation and unemployment in Nigeria. In addition to the interdependency or independence of these variables, there is also a need to access factors that may contribute to the increasing inflation and unemployment rates in Nigeria. These will enable policymakers to formulate policies that affect inflation and unemployment and pay attention to other variables that may directly or indirectly affect inflation and unemployment. Therefore, the study aims to test the validity of Philip's curve hypotheses and examine possible causes of inflation and unemployment in Nigeria. The study used secondary data sourced from the Central Bank of Nigeria and the World Bank. Vector Autoregressive and Error Correction methods were adopted for the analysis. The study revealed that there is no significant relationship between inflation and unemployment in Nigeria. Inefficiencies from the government's side and insufficient domestic investment were observed to be the possible causes of unemployment, whereas; exchange rate depreciation and money supply are blamed for the rising price levels in Nigeria. The study concludes that the problems of inflation and unemployment arise from inefficiencies in both monetary and fiscal policies. Efficient use of fiscal and monetary policies was recommended to raise employment and output in all sectors to meet the steaming local demand and export. Also, the full implementation of economic diversification policies is recommended. Furthermore, the study recommends increasing government spending on social infrastructure and incentives to firms to promote investment in Nigeria. These will have an overall effect of increasing output, reducing unemployment and achieving non-inflationary growth in Nigeria.

Keywords: inflation; unemployment; Philip's Curve; monetary and policies; economic diversification.

INTRODUCTION

The primary goals of macroeconomic policies are to attain economic stability in various sectors of the economy. Economies of the world aim to

achieve increased economic growth and development accompanied by the unemployment rate with non-accelerating inflation, known as the natural unemployment rate. The world over,

there is the need to maintain a balance in both domestic and foreign sectors and achieve sustained economic growth and a competitive exchange rate. It is often believed that a single-digit rate of inflation and an unemployment rate of about five per cent would ensure macroeconomic stability in an economy, all things being equal [27].

The maintenance of price stability and low unemployment rate took another dimension. It thus became a burning issue of thought after the work of J. W. Philips in 1958 on the relationship between money wage and employment [11]. After analyzing data for over a hundred years, Philips found out that there is a certain level of unemployment between 6 and 7% in which the wage level is constant, and its increment is zero. Therefore, when unemployment falls below this natural level, there would be a rapid increase in wages and vice versa [3]. Therefore, Philip's postulations are represented using the "Philip's Curve".

Before Philip's postulation in 1958, inflation and unemployment were treated differently. For instance, the monetarist and the classical school viewed inflation as an excessive money supply relative to output. Inflation to them was created when the money supply is increased at complete employment levels of output. The monetarist school cantered their view of unemployment on Milton Friedman's permanent income hypothesis. They believed that a decline in current receipts and employment only affects output to the anticipated income declines. The classical school saw unemployment as abnormal. To them, overproduction and unemployment are temporary as the market adjusts to full employment. Each school of thought offered its policy solutions. However, no attempts were made to explain the behaviours of inflation and unemployment together. Authors [25], on the other hand, viewed inflation as being caused by an excess of expenditure over income at the whole employment level. When output does not adjust to an increase in consumer expenditures, it results in inflation. This is because, as more money chases few goods, consumers tend to bid prices up. Keynesians regard inflation to be an aftermath of the money supply that keeps on increasing [1]. Keynes attributed unemployment to a fall in effective demand. Unemployment has been viewed as one of the serious impediments to social progress. Unemployment represents a waste of a nation's workforce and a loss of welfare, leading to lower output, lower-income and well-being [29].

Since a high unemployment rate represents output loss to the economy, achieving a minimal rate (if possible, the natural rate) of unemployment is a critical macroeconomic objective of every nation irrespective of development. Author [26] pointed out that unemployment is a global problem that poses a severe challenge to developed and developing countries. According to Keynes, increasing government spending can improve employment by boosting aggregate demand (consumption and investment).

Unemployment in Nigeria is not a recent phenomenon, as noted by [27]. However, since the early eighties, unemployment has assumed an alarming dimension as millions of non-disabled persons are willing to accept jobs at the prevailing wage rate but cannot find a job. Author [14] cited by [27] maintained that unemployment had been regarded as one of the most challenging economic problems facing Nigerian Policymakers.

Inflation, on the other hand, has been a significant problem in Nigeria. Likewise, rising inflation levels have become more prevalent in most developing countries than any other macroeconomic concept. Households, especially low-income earners, complain of the actual value of their income being depleted as they can no longer afford to buy the quantities they used to buy before. The coronavirus disease of 2019 has further worsened the unemployment and inflation rates in Nigeria. Finding a balance between unemployment and inflation has become a critical economic goal that every nation seeks to achieve. As noted by [27], attaining stability in inflation and unemployment rates is of great advantage for any economy to achieve sustainable growth and development. Economic growth, when considered in real terms, will be worthless without stability. A similar argument [22] confirmed that inflation and unemployment are critical economic growth and development factors.

Inflation and unemployment, an integral part of every market economy, come with some socio-economic consequences for the population of the countries in which these processes occur. However, the big question is, "does inflation spring unemployment or are they independent of each other?" this question becomes very important due to the observed pattern in inflation and unemployment trends, especially in developing countries such as Nigeria.

Empirical studies carried out in recent years have, in one way or the other, invalidated the trade-off between inflation and unemployment, as postulated by Phillips. For instance, [21, 30] found a positive relationship to exist between inflation and unemployment, while [19] cited by [11] found a significant relationship between inflation and unemployment rates in Nigeria. Both high inflation rates and high unemployment rates have been observed to coexist, especially in developing countries (Nigeria inclusive), reflecting a situation known as stagflation. Stagflation is a situation whereby low productivity or declining GDP coexists with inflation. In other words, the economy is stagnant, but inflation is rising.

In Nigeria, unemployment has continued to surge upwards at an alarming rate. This surge in the unemployment rate has been consistent with the rise in inflation rates. For instance, in the second quarter of 2021, the inflation rate in Nigeria rose to 17.75%, with the unemployment rate at 33.3%; the coexistence of high inflation and unemployment rates invalidates Philip's hypothesis. Author [33] cited by [17] noted that the Nigerian economy is battling shocking inflation alongside a severe recession as the unemployment rate rose astronomically. The author concluded that the Nigerian economy is at a crossroad. However, authors like as [9, 2, 20, 6] have a contrary opinion as their findings validated the existence of Philip's curve in Nigeria. The conflict between empirical findings and reality has called for further investigation on the subject matter.

This research work's primary interest is to further investigate the validity of Philip's curve in Nigeria by extending the analysis periods to 2020. Also, the research seeks to identify the possible causes of inflation and unemployment in Nigeria.

Literature review

Conceptual Literature. There have been various definitions for the concept of unemployment. Authors [5] viewed unemployment as the difference between labour at the current wage rate and working conditions and the amount hired at these levels. The classical economists defined unemployment as excess supply of labour over demand caused by adjustment in real weal. Authors [15] noted that unemployment is a situation in which people who are willing to work at the prevailing wage rate cannot find jobs. In other

words, no matter how unemployment is defined, the underlying philosophy is that those who are willing to work are true not working [15]. According to [4], unemployment is conceptualized as when workers are involuntarily out of work. The rate of the Unemployment rate is calculated by taking the number of unemployed people and dividing them by the total labour force.

Like [13] pus it "inflation is always and everywhere a monetary phenomenon and can be produced only by a more rapid increase in the quantity of money than output". It could also be seen to result from pressure-demand given a constant supply which then pushes prices up. Finally, authors [4] saw inflation as a rising general price level of a broad spectrum of goods and services over a given period. Inflation is commonly measured using the consumer price index (CPI) or the GDP deflator.

History and Trend of Unemployment and Inflation in Nigeria. According to available data, the problem of unemployment followed the recession of the 1980s when crude oil prices fell below \$10 per barrel. According to [26], the economy's downturn made the government implement restrictive policies such as exports, causing most manufacturing enterprises to be import-dependent, making those firms operate below-installed capacity. The authors noted that as a consequence, it led to the closedown of many industries, while the few that survived were forced to make redundant a large proportion of their workforce. The government at that time was also finding it increasingly difficult to fund its budget. As a result, SAP was introduced in 1986 to reduce the fiscal imbalance experienced in the country. Among the objectives of SAP was to achieve economic diversification, promote non-inflationary economic growth, reduce inflation by 9% yearly and adopt measures to expand the economy's supply base and encourage production. These were supposed to return the Nigerian economy to the path of sustainable prosperity. According to the Central Bank of Nigeria, Nigeria's unemployment rate pre-SAP era was 4.3 % in 1970. However, this increased to 6.4 % in 1980. A significant policy implication of the SAP policy was the depreciation of the Nigerian Naira. The depreciation of the naira made importation costlier; thus, making it more expensive for domestic firms to import materials needed in the production process. Following the SAP policy and the depreciation of the naira, inflation took a spiral. The rising inflation resulted in a decline in the

real wage. A fall in real wage implies a fall in the purchasing power of the worker. Aggregate demand was affected by the declining actual income levels because people could no longer buy plenty like they previously did. As a result of these, industries started to accumulate unintended inventories. Manufacturing firms started to rationalize their market prices; the manufacturing sector became weak. Irrespective of this, there continued to be an inflow of graduates produced by educational institutions. Since industries were already suffering from shock, these graduates could not be absorbed. These resulted in unemployment. Thus, the government's objective of achieving price stability and full employment failed [34, 29].

The middle 1970s saw the oil boom in the economy coupled with high inflation rates; there were no practical efforts to reduce the inflation rate. Instead, Udoji's award was an inflationary policy that unnecessarily left money in civil servants' pockets [27]. In a bid to loosen the fiscal policy during the SAP era, inflation was worsened. The inflation rate jumped from 16% in 1987 to 55% in 1988 before dropping to 7% in 1990 and then going up to 50% in 1992.

Though the introduction of SAP sounded plausible, it left the macroeconomic environment highly destabilizing [27]. The idea of exchange rate devaluation made the policy target of reducing

inflation impossible. This was because policies to increase productivity and reduce import dependencies were not fully implemented. Firms continued to import raw materials and equipment even at a high cost, reflected in production and price.

Current data shows that unemployment and inflation rates in Nigeria are double-digit. Unemployment and inflation rates averaged at 5.70% and 25.61% from 1981 to 2000, respectively. Nigeria's unemployment as of 2001 was 13.6% but rose to 14.8% in 2003; it was not until 2009 that the rate rose to 19.7%. It continued an upward trend to 21.4% in 2010, 27.4% in 2012 before declining to 23.1% in 2017. By 2018, unemployment rate further declined to 22.6% but rose to 23.1% in 2019 and 33.3% in 2020 [8].

On the other hand, the inflation rate in Nigeria was 20.81% in 1981; by 1985, it had fallen to 7.4%, and by 1995, it had risen to as high as 72.8% but declined to 10% in 1998. In 2001 and 2005, the inflation rate was 18.9% and 17.9%, respectively. It fell to 5.4% in 2007, and within about two years, it rose to 13.72%. In 2014 it stood at 8%, it moved to 9% in 2015, before having a sharp rise to 15.7% in 2016 and 16.3% in 2017. In 2018 and 2019, inflation rates were 11.03% and 11.4%, respectively [8]. According to [8] inflation rate rose to 18.12%, 17.93% and 17.75% in April, May and June 2021.

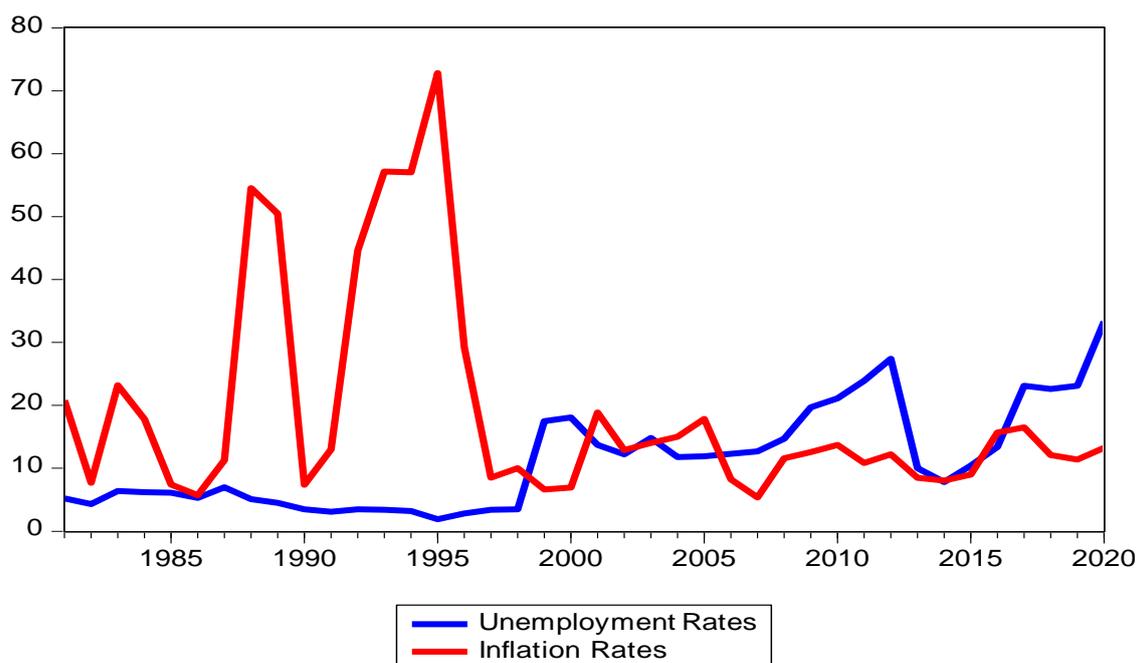


Figure 1 – Inflation and Unemployment Trend, %

On looking at the above graph, one can easily say that Philip's curve has existed in most periods in Nigeria. Similarly, there are other periods where inflation and unemployment coincided while periods where the variables went in the same direction. However, from 2013, it is seen that both variables moved in the same direction. Based on these multiple-insight scenarios and the effects of inflation and unemployment in the country, it is, therefore, a great motivation of this research work to empirically unravel the relationship between these two macroeconomic variables in Nigeria. Therefore, it is essential to look at some theories on both concepts briefly.

Theoretical Review. Several theories have long been developed to explain the relationship between inflation and unemployment. Some of these theories explain inflation and unemployment separately, while others, like the Philips curve, harmonize both concepts. Below is a review of some of these theories.

Theories of Unemployment. With the assumption of full employment, the classical theorist considered unemployment abnormal and impossible. They assumed that the market could be cleared with the interaction of demand and supply, and as such, there is neither overproduction nor unemployment. In cases whereby the abnormalities of overproduction or unemployment exist, it exists only for a short while. Basing their argument on a flexible wage system, they claim that automatic forces in the economic system tend to maintain full employment and produce output at that level. The assumptions and postulations of this group of theorists were greatly criticized, especially after the great depression of the 1920s. A significant critic to these theorists is John Maynard Keynes. Observing the inability of the market to achieve equilibrium, Keynes came up to disapprove the classical ideology starting with the idea that the economy was always at the whole employment level of output. To Keynes, underemployment rather than full employment existed. In his book titled *General Theory on Employment, Interest and Money*, Keynes observed that people and businesses hoard cash and avoid investment during a recession. He also observed the possibility of savings, which makes it possible that goods produced may not be completely cleared, thus questioning the classical school's belief. According to Keynesian economics, employment depends on effective demand. Effective demand results in output, output creates income, and income provides employment – Keynesian

theory viewed employment as a function of income. Also, effective demand depends on the aggregate supply and demand function. Keynes paid greater attention to the demand side of the economy; he stated that supply was stable. It was the increase in aggregate demand that could solve the problems of depression and unemployment. According to him, employment can be increased by increasing consumption and/or investment, forming aggregate demand. Keynes advocated for government intervention to solve the problems of unemployment. Authors [16, 18] support the Keynesian theory that increases in employment rate, capital stock and technological change are primarily endogenous. Hence, the growth of employment is dependent on demand and that the primary influencer of long-term growth of output also influences the growth of employment.

Theories of Inflation. One of the earliest attempts to explain inflation was the quantity theory of money developed by American Economist Irving Fisher in 1911. The theory assumed output to be constant, hence, implying a full-employment level of output. Furthermore, the velocity of money, which expresses the number of times money changes hand, is also assumed to be constant. Given these assumptions, the theory holds that money supply had a direct influence on price levels. Therefore, increasing the money supply will increase prices by the same proportion as the money supply. The mathematical expression is given as:

$$MV = PQ, \quad (1)$$

where M represents money supply or money stock; V is the velocity of money in circulation; P is the average price level; Q represents output.

$$P = \frac{MV}{Q} \quad (2)$$

This shows a direct link between price and money supply, given a constant V .

Neo-classical economists later built on the model. For example, the Cambridge school argues that inflation is caused by an increase in the demand for money. Their model is given as:

$$MD = KPQ, \quad (3)$$

where MD presents money demand; P is the general price level; Q is actual output; the constant proportion of total income that people want to hold in the form of money is presented by K .

$$P = \frac{MD}{KQ}, \quad (4)$$

where K and Q are assumed constant.

The equation implies that the general price level increases in proportion to the increase in the demand for money. That is, there is a direct link between general prices and money demand given K and Q .

However, if K and Q change, then the inflation rate will depend on the difference in the increase in demand for money and the sum of the rates of changes in K and Q . Consequently, inflation will be higher with low values of K and Q .

Arguably, this argument will be actual for Q because if the output increases with the demand for money, the general price level will be relatively stable. Still, if the proportion of total income that people want to hold in the form of money increases with the demand for money, the overall effect should be more inflation.

Keynes opposed a direct or proportionality between the quantity of money and the general price level. Instead, he argues that there is an indirect or non-proportional relationship between these two variables. For example, the interest rate is an essential variable in the Keynesian money-price mechanism. The interest rate will fall when the money supply increases, stimulating investment and aggregate demand, raising output and employment without rising inflation. Arguing against the idea of full employment, Keynes stated that as long as there is unemployment in the economy, output and employment will change in the same proportion as money. Still, there will be no change in price.

The monetary economist extensively criticized the Keynesian postulations. The basis of the monetary economist advocacy is in classical theory. Professor of Chicago University Milton Friedman was the frontman of the monetary theory. Friedman examined the relationship between money supply and prices and concluded that inflation is "always and everywhere a monetary phenomenon". The monetary economist maintained the classical ideology of causality

running from the left hand of the equation (MV) to the right hand (PQ). The monetarist saw inflation as detrimental to the economy as it creates uncertainty in the economy. They advocated for a tight hold of money supply and that it should only be increased at a constant annual rate tied to the potential growth of GDP expressed as a percentage. They argued that reducing the growth rate of the money supply can reduce inflation without a long-run increase in unemployment since the demand for labour will fall. Once price and wage inflation have adjusted to this new level of demand, unemployment will be eliminated. It is arguable how these would happen given that a reduction in money supply will cause the interest rate to rise, investment to fall, and output and employment.

Philip's Curve. The original Philips curve expressed an inverse relationship between the rate of unemployment and a wage increase. Author [33] cited by [11] noted that Philip's curve shows that a decrease in the unemployment rate (increased in employment rate) moves in reverse order with increases in the rate of inflation. Philip's idea was based on an empirical analysis of historical data from the UK. The idea behind Philips's theory was that, if for any reason, the demand for labour were higher than the supply of labour, then the equilibrium wage rates would be expected to rise above current wage levels. When unemployment is low, the rate of wage increase is high; when the wage rate is high, labourers will be more willing to offer their services. Employers will further bid the wage rate higher with only a few unemployed people as more workers are hired. Thus, as more workers are hired, unemployment falls. Contrarily, suppose the supply of labour tends to be greater than the demand for labour (the difference being unemployment). In that case, the equilibrium wage rate will be less than the current wage and will keep falling except with resistance from the labour union. Thus, the rate of changes in wages depended on the differences between the demand and supply of labour.

Several Economists have tried to extend the original Philips curve to cover the trade-off between unemployment and changes in the price level or inflation. They assume that the resultant effect is inflation whenever the money wage increases higher than the increase in output.

Empirical Review. Many scholars have conducted an intensive study on the relationship existing

between unemployment and the inflation rate. Such empirical studies have been conducted in both developed and developing countries. Some of those studies are reviewed below.

Author [21] investigated price expectations and the Philips curve hypothesis in the Nigerian economy. They applied the Persimonous Error Correction Model and the Johansen method of co-integration. Their result revealed the prevalence of a direct relationship between inflation and unemployment in Nigeria, thereby disproving the Philips curve hypothesis of an inverse relationship. Author [33] studied the responsiveness of unemployment to inflation in Nigeria. Their study covered a period between 1989 and 2014. They adopted the Error Correlation Model (ECM) and the Johansen technique in their study. They found that a long-run relationship existed between inflation and unemployment. They also found that inflation hurt unemployment in Nigeria. Authors [6] employed ARDL approach in studying the nature of inflation and unemployment in Nigeria. Their study covered periods between 1977 and 2011. They found that a long-run relationship exists between inflation and unemployment in Nigeria. They also found that an inverse relationship exists between inflation and unemployment in Nigeria. Author [20] employed Vector Auto-regressive model and Impulse Response Function in investigating the Phillips curve in Nigeria and the period of existence in the presence of such existence for the periods between 1980 and 2016. Their study validates the presence of the Phillips curve in Nigeria by showing that an inverse relationship exists between inflation and unemployment in the period under study. Author [2] employed the Ordinary Least Squares (OLS) technique in testing for the validity of the presence of the Phillips Curve in Nigeria using annual data for 1986-2014. The study reveals that the Phillips curve exists in Nigeria as there is a significant negative relationship between inflation and unemployment. Author [11] mentioned that [9] found a negative relationship between inflation and unemployment in Nigeria. The finding by [17] cited by [31] validates Philip's curve hypothesis in the USA and UK.

This researcher's interest is to extend the period of analysis to 2020 to examine the variables better. Also, the study is extended to investigate the possible causes of inflation and unemployment in Nigeria. Additionally, the researcher employed

preliminary tests such as unit roots and a descriptive test to avoid spurious regression.

METHODOLOGY

Research Design. The research design adopted in this study is an ex-post facto research design. By definition, the ex-post facto research design is a systematic empirical inquiry in which the researcher does not have control of independent variables because their manifestations have already occurred. Ex-post facto research design is adopted according to Kerlinger (1973) because the researcher is interested in investigating cause-effect relationships.

Model Specification. The researcher adopts the original Phillips equation as explained by [25] as cited by [30]:

$$W=F(U), \quad (5)$$

$$W=\alpha-\beta u, \quad (6)$$

where w is wage inflation; U is unemployment; α is constant; β is the unemployment coefficient or the slope.

Since $W=F(U)$, we can modify the model to fit our interest as:

$$U=F(W). \quad (7)$$

Changes in nominal wage are used as a proxy for inflation.

If the inverse relationship between unemployment and inflation were genuine, the functional relationship should be:

$$U=f\left(\frac{1}{w}\right). \quad (8)$$

We can further modify equation (9) as:

$$UMPR=f(INF, GDP). \quad (9)$$

Descriptive statistics revealed that only inflation rate (INF) is a normal distribution, as shown by the probability value of Jaqua Bera statics which was more significant than 5%. By modifying equation [33] to indicate the logged form, the mathematical form of the model becomes:

Model I

$$UMPR_t = \beta_0 + \beta_1 INF_t + \beta_2 LGDP_t, \quad (10)$$

where $UMPR$ is the unemployment rate; INF represents inflation; $LGDP$ represents log of Gross Domestic Product; f is the functional relationship. Converting equation [14] into an econometrics model, we have:

$$UMPR_t = \beta_0 + \beta_1 INF_t + \beta_2 LGDP_t + \mu_t \quad (11)$$

The study will also consider some factors that can affect inflation and unemployment in Nigeria due to the problematic levels of inflation and unemployment. These will be analyzed in separate models as given below.

Model II

In model two, the researcher aims at examining the effect of some variables on unemployment growth rates in Nigeria.

$$UMP_t = f(INV, GOV, CPS) \quad (12)$$

$$UMPR_t = \beta_0 + \beta_1 INV_t + \beta_2 GOV_t + \beta_3 CPS_t + U_t \quad (13)$$

Model II regresses unemployment as a function of investment (INV), government expenditures (GOV) and credit to the private sector (CPS).

Model III

In model three, we shall regress inflation against some variables that may affect inflationary rates in Nigeria.

$$INF = f(MS, CON, MANQ)$$

$$INF_t = \beta_0 + \beta_1 MS_t + \beta_2 CON_t + \beta_3 MANQ_t + \beta_4 AGR + \beta_5 EXR + U_t \quad (14)$$

Inflation represents inflation, MS is money supply (M2), CON represents final consumption, MANQ represents manufacturing output, and AGR represents the output from agriculture, while EXR is the exchange rate; μ_t represents the error term.

Priori Expectations. We expect to see an inverse relationship (-) between the dependent variables in the model I and II and their respective independent variables based on economic theories. In model three, there might be some controversies on the impacts of MS on inflation. Keynesian economies believe that it should be negative, assuming no full employment exists, while classical thoughts claim that it should be positive given full employment. However, judging by the Nigerian economy, we expect a negative relationship between manufacturing and agricultural output. On the other hand, we expect a positive relationship concerning final consumption, assuming that consumption increases faster than manufacturing and agricultural output. Depreciation in exchange rates makes imports costlier, and since Nigeria is an import-dependent country, it will lead to inflation.

Estimation Techniques. The data analysis started by conducting a unit root test. This was done to ensure that the research estimates were not spurious. In doing this, the Augmented Dickey-Fuller unit root test was employed. The techniques for further analysis were decided based on the outcomes of the unit root test and co-integration. The Vector Autoregressive (VAR) model was used in the model (I) due to the absence of co-integration. VAR model was also used in model two because the variables were integrated of the order of one and two. Finally, in model III, the Error Correction Model was employed because co-integration was found among the variables.

RESULTS AND DISCUSSION

Unit Root Test. Unit root test was done to avoid producing a spurious regression. The Augmented Dickey-Fuller unit root test was used. The result showed that all the variables used were stationary at first difference except for government expenditures after second differencing.

Model Estimation. First, we shall examine the relationship between inflation and unemployment in Nigeria.

Model I

$$UMPR_t = \beta_0 + \beta_1 INF_t + \beta_2 LGDP_t \quad (15)$$

According to economic theories, we expect the outcome of the model to be:

$$UMPR_t = \beta_0 - \beta_1 INF_t - \beta_2 LGDP_t \quad (16)$$

Equation (16) implies that inflation and unemployment are inversely related. The model I is estimated using Johansen Co-integration Test, Vector Autoregressive Model and VAR Granger Causality Test. The results and analyses are given below.

Co-integration. The Johansen Co-integration test was employed to check for the existence or otherwise of a long-run relationship among the variables. The result showed the absence of a long-run relationship among the variables. The decision was made after observing that the values of trace statistics were less than 5% critical in all hypothesized equations.

Given this, the Vector Autoregressive model is adopted to examine short-run relationships in the model. Furthermore, the VAR system equation is adopted to show the probability values.

Table 1 –Short Run Vector Autoregressive Model (I)

	Coefficient	Std. Error	t-Statistic	Prob.
UMPR	0.623803	0.148788	4.192577	0.0002
INF	-0.057312	0.045773	-1.252109	0.2188
GDP	0.960902	0.420921	2.282854	0.0286
C	-2.229805	3.042535	-0.732877	0.4685

Notes: Researcher's Computation 2021, using E-views 9.0

Decision Rule. A coefficient of the parameter is assumed statistically significant in the probability value corresponding to it is less than 5%.

From the VAR estimate above, we observe an inverse relationship between inflation and unemployment. Specifically, a change in inflation by 1% resulted in an inverse change in unemployment by approximately 6%. We also observe a positive coefficient of 0.62 for unemployment corresponding to -0.06 for inflation, implying that both variables move in different directions.

However, the observed relationship between inflation and unemployment is insignificant. Using the inflation rate as the dependent variable, we found that an increase in unemployment resulted in a fall in the inflation rate by about 10%. Yet, the estimate is insignificant (see appendix). These imply that other factors not included in the model must have played significant roles in changes in the variables.

When unemployment was used as a dependent variable, Gross Domestic Variable indicated a significant and positive impact on unemployment. An increase in GDP by 1% corresponds to an increase in unemployment by 96%. It assumed an insignificant negative impact when inflation was used as the dependent variable. The first instance contradicts a priori expectations. It implies that economic growth in Nigeria propagates unemployment, while in the second instance, economic growth led to a fall in inflation rates by over 100%. This does not conform to the situation in Nigeria. In Nigeria, there have not been coherent patterns in inflation and growth rates. For instance, periods of high growth rates corresponded with low inflation rates in some years. In some years, periods of recession also corresponded with high inflation rates (see appendix I).

Causality. A causality test was done to ascertain the degree of dependency among the variables. That is, to check if the variables granger caused each other. This will enable us to confirm the impacts explained in the VAR model.

Using unemployment (see table III in appendix) as the dependent variable, we notice that inflation does not cause unemployment in Nigeria, whereas; gross domestic product causes unemployment growth in Nigeria. These correspond to the insignificant impact obtained from inflation in the VAR model and the significant impact from GDP. Using the inflation rate as the dependent variable, we find that neither unemployment nor GDP causes inflation in Nigeria. This corresponds to the result obtained when inflation was used as the dependent variable in the VAR model (see appendix).

Conclusion on Model I. The inverse coefficients of inflation and unemployment confirm the acceptance of Philip's hypothesis in Nigeria.

We have established that inflation is not responsible for the significant and continuous rise in unemployment, neither is unemployment responsible for the changes in inflation. So the question now is, "what is responsible for the rapid and continuous increase in inflation and unemployment in Nigeria? The study further investigates factors that might have influenced the unemployment and inflation growth rate in Nigeria. This is done in models 2 and 3.

Model II

$$UMPR_t = \beta_0 + \beta_1 INV_t + \beta_2 GOV_t + \beta_3 CPS_t + U_t \quad (17)$$

In this model, we try to examine some possible causes of unemployment growth in Nigeria. The researcher would like to know if investment, government spending, or credits to the private sector have significantly impacted the unemployment rate in Nigeria. The choice of these variables is as follows.

The ultimate goal of fiscal and monetary policies is to achieve full employment, economic growth

etc. Investment is a critical path toward achieving those macroeconomic goals. This invests a channel for growth and reduced unemployment rate. If government fiscal policies fail, then we shall see investment increasing unemployment and vice versa. On the other hand, economists believe that the government can stimulate business activities, increase investment, reduce unemployment, and achieve economic growth in government spending. Also, one possible way of achieving these macroeconomic objectives is through access to credit for investment in private businesses. If these policy actions fail, then we shall expect positive coefficients.

Table 2 – Short Run Vector Autoregressive Model (II)

	Coefficient	Std. Error	t-Statistic	Prob.
UMPR (-1)	0.604773	0.169496	3.568066	0.0013
UMPR(-2)	-0.137841	0.166654	-0.827109	0.4149
INV(-1)	9.670663	5.517283	1.752794	0.0902
INV(-2)	8.903289	6.776674	1.313814	0.1992
GOV(-1)	4.517269	3.551062	1.272090	0.2134
GOV(-2)	-7.266325	3.847279	-1.888692	0.0690
CPS(-1)	-1.918450	4.527788	-0.423706	0.6749
CPS(-2)	9.018528	4.197531	2.148531	0.0402
C	-85.27211	25.87744	-3.295229	0.0026

Notes: Researcher's Computation 2021, using E-views 9.0

The estimation of model II reveals the following. First, at both lag one and optimum lag two, investment is shown to have no significant impact on unemployment rates in Nigeria. This is to say that policies aimed at stimulating investment in Nigeria may have been unsuccessful in increasing investment rates enough to impact unemployment significantly. Second, on the other hand, government expenditure is also shown to have insignificant impacts on unemployment. This reveals the inefficiencies in government spending over the years. The result conforms to the Global Competitiveness 2018 Index ranking Nigeria 120 of 137 on efficiency in government spending. Second, credit to the private sector is revealed to have a positive and significant impact on unemployment at lag two. This means that an increase in credit to the private sector by 1% led to an increase in unemployment by 9%. There is, therefore, the need for efficiency in the allocation of funds to the private sector. Third, corruption in Nigeria has resulted in the wasteful allocation of funds to unproductive uses. This has to stop if Nigeria wants to see a significant drop in unemployment rates.

Conclusions on model II. Evidence from model II shows that investment and government spending have not significantly affected the unemployment rate levels in Nigeria. However, policies aimed at promoting investment in Nigeria have not been successful on the investment side. In contrast, government spending has not been efficiently done to achieve higher employment rates in Nigeria on government spending. Therefore, the researcher concludes that insufficient investment, inefficient government spending, and inefficient private credit allocation are the causes of unemployment in Nigeria.

Model III

$$INF_t = \beta_0 + \beta_1 MS_t + \beta_2 CON_t + \beta_3 MANQ_t + \beta_4 AGR + \beta_5 EXR + U_t \quad (18)$$

Model III is used to explain the changes in inflation rates. The researcher considers money supply, final consumption, and manufacturing output

as variables that can impact the inflation rate. The choice of these variables is as follows:

According to classical economists, money supply and inflation (price) directly relationship in the long run. However, this is only possible in the long run when output cannot be increased. In the short run, the output can be increased. Thus, the manufacturing output will not affect the price with an increase in money supply and a corresponding investment increase. It might even further reduce inflation if the changes in investment and investment are more than the changes in the money supply. Concerning final consumption,

demand-pull inflation can result from an increase in aggregate demand oversupply. Food inflation is one of the most observed inflation in Nigeria.

Given the low-income level in Nigeria, a more significant percentage of income is spent on food. Estimates from model III is given below. The fact that Nigeria is an import-dependent nation makes the concept of exchange rate vital. A large proportion of components used in the production processes in Nigeria is imported. A depreciation in the value of naira (as it had been) will make imports costlier and thus, reflect positively on price.

Table 3 – Short Run Error Vector Correction Model (III)

	Coefficient	Std. Error	t-Statistic	Prob.
ECM	-0.075160	0.031532	-2.383580	0.0258
AGR(-1)	24.19718	19.10264	1.266693	0.2179
AGR(-2)	-3.634807	17.15367	-0.211897	0.8341
MANQ(-1)	10.09886	20.67700	0.488410	0.6299
MANQ(-2)	-7.429210	22.93686	-0.323898	0.7489
CON(-2)	-27.27855	11.79530	-2.312663	0.0300
MS(-1)	53.08108	23.99697	2.211990	0.0372
EXR(-1)	29.90529	13.42189	2.228097	0.0359
EXR(-2)	42.38710	12.29437	3.447682	0.0022
C	-20.26785	9.369175	-2.163248	0.0412

Notes: Researcher’s Computation 2021, using E-views 9.0

A lot of variables can influence the inflation rate. However, the researcher considers the above variables as most influential.

The estimate of model three above reveals that agricultural and manufacturing outputs have an insignificant impact on inflation.

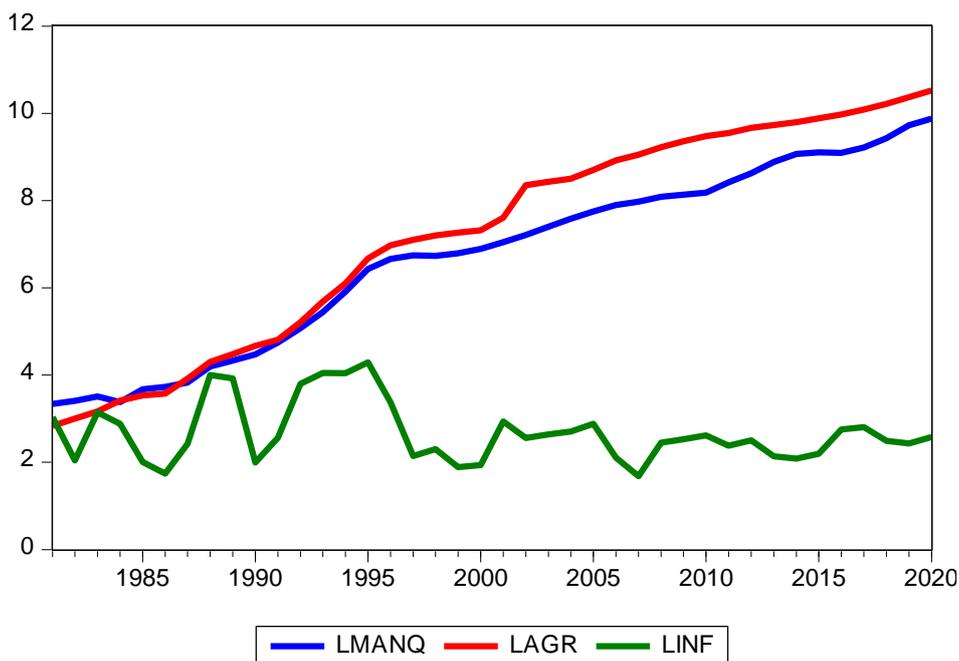


Figure 2 – Inflation and Output Trends

Notes: Researcher’s Computation 2021, using E-views 9.0

The trend lines above show that there has been a smooth ride in both agricultural and manufacturing outputs over time. It also proves that there is no significant relationship between output and inflation in Nigeria.

Final consumption was revealed to have a significant negative impact on inflation at lag two. On the other hand, the estimate was insignificant at

lag one. On the other hand, the money supply at lag one indicated a positive and significant impact on inflation. This implies that the money supply has not been able to significantly improve outputs levels given the increasing levels of consumption/demand, hence, leading to inflation. There is, therefore, a need to increase the money supply and efficiently link up investment.

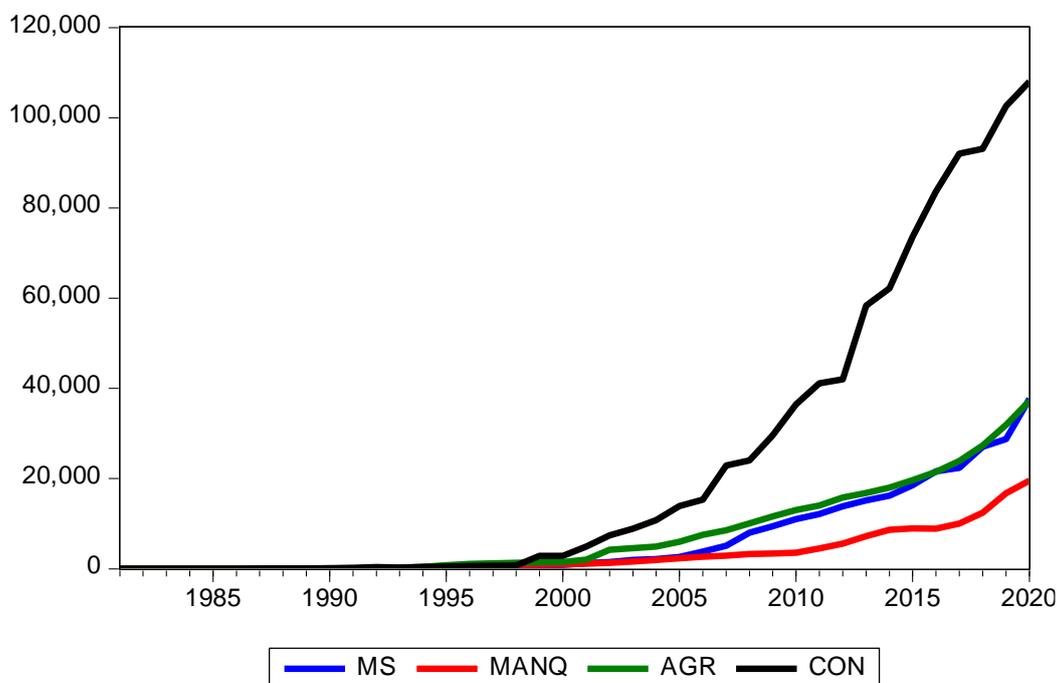


Figure 3 – Money Supply, Manufacturing and Agricultural outputs and Consumption

Source: Researcher's Computation 2021, using E-views 9.0

Figure 3 above reveals the gap between output and final consumption. There is, therefore, the need to bridge this gap through an increase in investment and output. One of the ways of achieving this is through monetary policies such as efficient use of money supply.

At lag one and two, exchange rates were shown to have positive and significant impacts on inflation rates. Relating this observation to the current realities of present 2021, one can conclude this estimate's truism. The rapid depreciation of the naira against the dollar saw the inflation rate rise to 17.75% in June 2021. This corresponds to depreciation in the exchange rate from 358.8/\$ in 2020 to 404.19/\$ in June 2021. The figure is expected to be higher in July 2021. This relationship is due to the high levels of import dependency in Nigeria and the low demand for naira due to the low competitiveness of the export sector.

Conclusion on Model III. The researcher concludes on the estimates on model III by saying that exchange rate depreciation and increase in the money supply without corresponding or more than proportional increase in output is the primary cause of inflation in Nigeria. Therefore, there is a need to stimulate investment and output using efficient monetary and fiscal policies. An increase in output will match the increasing levels of consumption and drive export and increase the competitiveness of naira and, hence, improve the exchange rate position of naira and ultimately reduce inflation.

Post Estimation Test. Post estimation test was done to see how seriously the regression estimates will be taken. It was done to check if the result is only valid for the period of analysis only or if it can be used for forecasts and further predictions. LM serial correlation was used. The LM serial correlation test was employed to check if

the previous values determined the current value of the error term. The error term assumes that the mean, variance and co-variance are time-invariant.

The result of the serial correlation test from the three models indicated the absence of serial correlation in the models.

The implication of the study. The primary objective of this study is to investigate the validity of the Philips Curve in Nigeria for the periods between 1981 and 2020. The study also took an interest in identifying the possible causes of inflation and unemployment in Nigeria within the same timeframe.

The study found out that inflation and unemployment moved in the opposite direction and that they both have an insignificant impact. Investigation on the possible causes of unemployment revealed that the government had not stimulated employment in the country through its expenditures. The study found that there have been insufficient investments to reduce the levels of unemployment rates in Nigeria. Another factor observed was inefficiencies in allocating private credits. As a result, private credits were revealed to have encouraged unemployment growth in Nigeria.

In the area of inflation, the study found that exchange rate depreciation and money supply had positive and significant impacts on inflation. Exchange rate depreciation and money supply were considered the primary causes of Nigeria's increasing levels of inflation. This reveals the low competitiveness of naira due to the country's weak export sector and huge import sector. Therefore, there is a need to match money supply with output to meet local demands and export needs.

CONCLUSIONS

Summary of Findings. The study examined the relationship between Unemployment and Inflation: Testing Philip's Curve Hypotheses and investigating the causes of inflation and unemployment in Nigeria. The study covered periods between 1981 and 2020.

The resulting finding includes that:

1. Philip's hypothesis exists in Nigeria.
2. Inflation and unemployment have no significant relationship.

3. There is no long-run relationship between inflation and unemployment in Nigeria.

4. No causality exists between inflation and unemployment in Nigeria.

5. Insufficient investment, efficient government spending and inefficient allocation of private credits are the causes of unemployment growth in Nigeria.

6. Exchange rate depreciation and an increase in the money supply without a corresponding increase in output are the primary causes of inflation in Nigeria.

Recommendation. The study examined the relationship between Unemployment and Inflation: Testing Philips Curve Hypotheses and investigating the causes of inflation and unemployment in Nigeria. The study validates the existence of the Philips curve in Nigeria for the periods under review. Inflation and unemployment were shown to have an insignificant relationship. The study identified inefficiencies in government spending, private credit allocation, and insufficient investment levels as possible causes of unemployment growth in Nigeria. At the same time, money supply and exchange rate depreciation were considered the primary causes of inflation in Nigeria.

The study concludes that the problems of inflation and unemployment arise from inefficiencies in both monetary and fiscal policies. That there is need to improve on the efficiency at which government spends money. There is also a need to stimulate investment using monetary and fiscal policies and efficient private credit allocation to its best uses. The study recommends that the central bank and the ministry of finance should do everything in their capacity to raise the output levels to match or surpass the increasing levels of domestic demand while also making provisions to stimulate export to make the naira more competitive. This implies the efficient use of fiscal and monetary policy measures, including the money supply. Also, the study recommends the full implementation of economic diversification policies. Furthermore, there is a need to increase government spending on social infrastructure and incentives to firms to promote investment in Nigeria. These will have an overall effect of increasing output, reducing unemployment and promoting non-inflationary growth in Nigeria.

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Data for Empirical Analysis

YEAR	Unemployment Rate (%)	Inflation Rate (%)	Government expenditures (₦B)	Money Supply (₦B)	Exchange Rate (₦/\$)
1981	5.2	20.8128	11.41	14.47	0.6
1982	4.3	7.6977	11.92	15.79	0.7
1983	6.4	23.2123	9.64	17.69	0.7
1984	6.2	17.8205	9.93	20.11	0.8
1985	6.1	7.4353	13.04	22.30	0.9
1986	5.3	5.7172	16.23	23.81	1.8
1987	7	11.2903	22.02	27.57	4
1988	5.1	54.5112	27.75	38.36	4.5
1989	4.5	50.4667	41.03	45.90	7.4
1990	3.5	7.3644	60.27	47.42	8
1991	3.1	13.007	66.58	75.40	9.9
1992	3.5	44.5888	92.80	111.11	17.3
1993	3.4	57.1653	191.23	165.34	22.1
1994	3.2	57.0317	160.89	230.29	22
1995	1.9	72.8355	248.77	289.09	21.9
1996	2.8	29.2683	337.22	345.85	21.9
1997	3.4	8.5299	428.22	413.28	21.9
1998	3.5	9.9964	487.11	488.15	21.9
1999	17.5	6.6184	947.69	628.95	92.3
2000	18.1	6.9333	701.05	878.46	101.7
2001	13.7	18.8736	1,018.00	1,269.32	111.2
2002	12.2	12.8766	1,018.18	1,505.96	120.6
2003	14.8	14.0318	1,225.99	1,952.92	129.2
2004	11.8	14.998	1,426.20	2,131.82	132.9
2005	11.9	17.8635	1,822.10	2,637.91	131.3
2006	12.3	8.2252	1,938.00	3,797.91	128.7
2007	12.7	5.388	2,450.90	5,127.40	125.8
2008	14.7	11.5811	3,240.82	8,008.20	118.6
2009	19.7	12.555	3,452.99	9,411.11	148.9
2010	21.1	13.7202	4,194.58	11,034.94	150.3
2011	23.9	10.84	4,712.06	12,172.49	153.9
2012	27.4	12.2178	4,605.39	13,893.22	157.5
2013	10	8.4758	5,185.32	15,154.64	157.3
2014	7.8	8.0625	4,587.39	16,238.52	158.6
2015	10.4	9.0094	4,988.86	18,525.22	192.4
2016	13.4	15.6753	5,858.56	21,624.63	253.5
2017	23.1	16.5235	6,456.70	22,363.43	305.8
2018	22.6	12.0947	7,813.74	27,068.58	306.1
2019	23.1	11.3968	9,714.84	28,783.19	306.9
2020	33.3	13.25	10,164.6	37,704.98	358.8

YEAR	Credit To Private Sector(₦'B)	Consumption expenditures(₦'B)	Agricultural Output(₦'B)	Manufacturing Output(₦'B)	GDP(₦'B)
1981	8.57	9.704794	17.05	28.23	94.33
1982	10.67	12.3445	20.13	30.31	101.01
1983	11.67	14.37329	23.80	33.49	110.06
1984	12.46	20.95202	30.37	29.42	116.27
1985	13.07	31.77033	34.24	39.55	134.59
1986	15.25	41.19434	35.70	41.63	134.6
1987	21.08	88.87418	50.29	45.96	193.13
1988	27.33	110.3806	73.76	66.34	263.29
1989	30.40	97.28678	88.26	76.14	382.26
1990	33.55	149.4343	106.63	87.96	472.65
1991	41.35	189.1657	123.24	115.03	545.67
1992	58.12	367.543	184.12	159.95	875.34
1993	127.12	287.9516	295.32	231.02	1089.68
1994	143.42	387.8546	445.27	370.16	1399.7
1995	180.00	509.6081	790.14	619.85	2907.36
1996	238.60	633.9054	1,070.51	780.48	4032.3
1997	316.21	653.2192	1,211.46	848.33	4189.25
1998	351.96	729.4532	1,341.04	838.53	3989.45
1999	431.17	2853.154	1,426.97	891.29	4679.21
2000	530.37	2875.752	1,508.41	984.08	6713.57
2001	764.96	4960.88	2,015.42	1,146.68	6895.2
2002	930.49	7435.046	4,251.52	1,358.53	7795.76
2003	1,096.54	8877.419	4,585.93	1,635.05	9913.52
2004	1,421.66	10781.65	4,935.26	1,968.56	11411.07
2005	1,838.39	13935.37	6,032.33	2,326.31	14610.88
2006	2,290.62	15358.25	7,513.30	2,689.08	18564.59
2007	3,668.66	22944.05	8,551.98	2,913.26	20657.32
2008	7,899.14	24035.71	10,100.33	3,263.82	24296.33
2009	9,889.58	29596.28	11,625.44	3,406.69	24794.24
2010	10,518.17	36485.28	13,048.89	3,578.64	54612.26
2011	9,600.02	41154.18	14,037.83	4,527.45	62980.4
2012	13,293.64	42037.07	15,816.00	5,588.82	71713.94
2013	14,461.41	58324.62	16,816.55	7,233.32	80092.56
2014	16,753.00	62207.36	18,018.61	8,685.43	98043.62
2015	18,688.42	73593.88	19,636.97	8,973.77	94144.96
2016	21,025.24	83637.89	21,523.51	8,903.24	101598.48
2017	22,459.18	92068.35	23,952.55	10,044.48	113711.6346
2018	22,646.33	93125.36	27,371.30	12,455.53	127,736.83
2019	25,676.87	102587.9	31,904.14	16,781.06	144,210.49
2020	29,051.61	108007.5	37,241.61	19,539.55	152,324.07

Data Source: Central Bank of Nigeria Statistical Bulletin, 2020 and World Bank Data, 2020.

Regression Results

Model I:

Table I: Co-Integration

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None	0.385181	27.43528	29.79707	0.0914
At most 1	0.192165	9.437440	15.49471	0.3265
At most 2	0.040812	1.541734	3.841466	0.2144

Trace test indicates no cointegration at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None	0.385181	17.99784	21.13162	0.1299
At most 1	0.192165	7.895706	14.26460	0.3894
At most 2	0.040812	1.541734	3.841466	0.2144

Max-eigenvalue test indicates no cointegration at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegrating Coefficients (normalized by $b'S_{11}b=I$):

UMPR	INF	LGDP
-0.214103	-0.126217	0.349013
0.229418	-0.016886	-0.619333
0.118210	0.032913	0.221344

Unrestricted Adjustment Coefficients (alpha):

D(UMPR)	1.179047	-1.774636	-0.064696
D(INF)	4.123707	2.387998	-1.927964
D(LGDP)	-0.058522	-0.010271	-0.028450

1 Cointegrating Equation(s): Log likelihood -231.5194

Normalized cointegrating coefficients (standard error in parentheses)

UMPR	INF	LGDP
1.000000	0.589514	-1.630114
	(0.11386)	(0.52682)

Table II: Vector Autoregression Estimates

	UMPR	INF	LGDP
UMPR(-1)	0.623803 (0.14879) [4.19258]	-0.096788 (0.46875) [-0.20648]	0.005034 (0.00586) [0.85951]
INF(-1)	-0.057312 (0.04577) [-1.25211]	0.555860 (0.14420) [3.85466]	0.004164 (0.00180) [2.31119]
LGDP(-1)	0.960902 (0.42092) [2.28285]	-1.021998 (1.32610) [-0.77068]	0.985406 (0.01657) [59.4738]
C	-2.229805 (3.04253) [-0.73288]	17.97370 (9.58539) [1.87511]	0.178487 (0.11976) [1.49033]
R-squared	0.732166	0.406468	0.995360
Adj. R-squared	0.709208	0.355593	0.994963
Sum sq. resids	663.4042	6584.560	1.027910
S.E. equation	4.353666	13.71606	0.171373
F-statistic	31.89258	7.989663	2502.914
Log likelihood	-110.5981	-155.3526	15.56407
Akaike AIC	5.876828	8.171926	-0.593029
Schwarz SC	6.047450	8.342548	-0.422408
Mean dependent	11.50513	18.95254	8.623969
S.D. dependent	8.073542	17.08635	2.414599
Determinant resid covariance (dof adj.)		85.96177	
Determinant resid covariance		62.13205	
Log likelihood		-246.5364	
Akaike information criterion		13.25828	
Schwarz criterion		13.77014	

Table III: VAR Causality

Dependent variable: UMPR

Excluded	Chi-sq	df	Prob.
INF	1.567777	1	0.2105
LGDP	5.211423	1	0.0224
All	6.618573	2	0.0365

Dependent variable: INF

Excluded	Chi-sq	df	Prob.
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UMPR	0.042635	1	0.8364
LGDP	0.593950	1	0.4409
All	1.657176	2	0.4367

Dependent variable: LGDP

Excluded	Chi-sq	df	Prob.
UMPR	0.738758	1	0.3901
INF	5.341584	1	0.0208
All	5.353844	2	0.0688

F-statistic	0.872335	Prob. F(1,34)	0.3569
Obs*R-squared	0.975589	Prob. Chi-Square(1)	0.3233

Table IV: Inflation as Dependent Variable
Vector Autoregression Estimates

	INF	UMPR	LGDP
INF(-1)	0.555860 (0.14420) [3.85466]	-0.057312 (0.04577) [-1.25211]	0.004164 (0.00180) [2.31119]
UMPR(-1)	-0.096788 (0.46875) [-0.20648]	0.623803 (0.14879) [4.19258]	0.005034 (0.00586) [0.85951]
LGDP(-1)	-1.021998 (1.32610) [-0.77068]	0.960902 (0.42092) [2.28285]	0.985406 (0.01657) [59.4738]
C	17.97370 (9.58539) [1.87511]	-2.229805 (3.04253) [-0.73288]	0.178487 (0.11976) [1.49033]
R-squared	0.406468	0.732166	0.995360
Adj. R-squared	0.355593	0.709208	0.994963
Sum sq. resids	6584.560	663.4042	1.027910
S.E. equation	13.71606	4.353666	0.171373
F-statistic	7.989663	31.89258	2502.914
Log likelihood	-155.3526	-110.5981	15.56407
Akaike AIC	8.171926	5.876828	-0.593029
Schwarz SC	8.342548	6.047450	-0.422408
Mean dependent	18.95254	11.50513	8.623969
S.D. dependent	17.08635	8.073542	2.414599

Model II

Table V: Vector Autoregression Estimates

	UMPR	LINV	LGOV	LCPS
UMPR(-1)	0.604773 (0.16950) [3.56807]	-0.001962 (0.00558) [-0.35168]	-0.001514 (0.00875) [-0.17300]	-0.001698 (0.00741) [-0.22913]
UMPR(-2)	-0.137841 (0.16665) [-0.82711]	0.002740 (0.00548) [0.49948]	-0.008496 (0.00861) [-0.98710]	0.000121 (0.00729) [0.01659]
LINV(-1)	9.670663 (5.51728) [1.75279]	1.051042 (0.18158) [5.78820]	-0.102830 (0.28494) [-0.36089]	-0.241153 (0.24119) [-0.99984]
LINV(-2)	8.903289 (6.77667) [1.31381]	-0.268215 (0.22303) [-1.20258]	-0.447362 (0.34998) [-1.27826]	-0.043207 (0.29625) [-0.14585]
LGOV(-1)	4.517269 (3.55106) [1.27209]	0.154400 (0.11687) [1.32111]	0.674530 (0.18339) [3.67806]	0.025041 (0.15524) [0.16131]
LGOV(-2)	-7.266325 (3.84728) [-1.88869]	-0.194765 (0.12662) [-1.53817]	0.468133 (0.19869) [2.35609]	0.190850 (0.16819) [1.13475]
LCPS(-1)	-1.918450 (4.52779) [-0.42371]	-0.020027 (0.14902) [-0.13439]	-0.238225 (0.23384) [-1.01877]	1.001186 (0.19793) [5.05816]
LCPS(-2)	9.018528 (4.19753) [2.14853]	0.026609 (0.13815) [0.19261]	0.011571 (0.21678) [0.05338]	-0.236945 (0.18350) [-1.29127]
C	-85.27211 (25.8774) [-3.29523]	0.895378 (0.85167) [1.05132]	2.836303 (1.33643) [2.12230]	1.358400 (1.13125) [1.20080]
R-squared	0.827928	0.947131	0.993760	0.996972
Adj. R-squared	0.780460	0.932546	0.992038	0.996137
Sum sq. resids	417.0395	0.451731	1.112310	0.796985
S.E. equation	3.792186	0.124808	0.195846	0.165778
F-statistic	17.44181	64.94005	577.2808	1193.638
Log likelihood	-99.43597	30.29316	13.17214	19.50595
Akaike AIC	5.707156	-1.120693	-0.219586	-0.552945
Schwarz SC	6.095005	-0.732843	0.168263	-0.165095
Mean dependent	11.69474	3.389593	6.397131	6.648649
S.D. dependent	8.093439	0.480548	2.194880	2.667258

Model III

Table VI: Vector Error Correction Estimates

Cointegrating Eq:	CointEq1					
INF(-1)	1.000000					
LAGR(-1)	-173.1351 (90.7787) [-1.90722]					
LMANQ(-1)	32.00217 (76.2059) [0.41994]					
LCON(-1)	-162.2566 (60.0198) [-2.70339]					
LMS(-1)	128.7728 (84.4435) [1.52496]					
LEXR(-1)	231.4148 (54.3439) [4.25834]					
C	582.3647					

Error Correction:	D(INF)	D(LAGR)	D(LMANQ)	D(LCON)	D(LMS)	D(LEXR)
CointEq1	-0.075160 (0.03153) [-2.38358]	0.000832 (0.00028) [2.93090]	6.94E-06 (0.00030) [0.02285]	0.002063 (0.00067) [3.09969]	-4.96E-06 (0.00026) [-0.01874]	0.001098 (0.00083) [1.31903]
D(INF(-1))	-0.146576 (0.16899) [-0.86735]	0.002274 (0.00152) [1.49428]	-0.000946 (0.00163) [-0.58117]	-0.000212 (0.00357) [-0.05948]	-0.002669 (0.00142) [-1.88128]	0.003622 (0.00446) [0.81172]
D(INF(-2))	-0.578233 (0.17404) [-3.32240]	-0.000267 (0.00157) [-0.17047]	0.001320 (0.00168) [0.78734]	-0.003150 (0.00367) [-0.85760]	-0.002660 (0.00146) [-1.82046]	-0.006564 (0.00460) [-1.42840]
D(LAGR(-1))	24.19718 (19.1026) [1.26669]	-0.008738 (0.17205) [-0.05079]	0.248389 (0.18399) [1.35000]	-0.064726 (0.40319) [-0.16054]	0.139436 (0.16036) [0.86949]	0.057998 (0.50436) [0.11499]
D(LAGR(-2))	-3.634807 (17.1537) [-0.21190]	-0.356780 (0.15449) [-2.30934]	-0.052271 (0.16522) [-0.31638]	-0.364294 (0.36205) [-1.00619]	-0.256501 (0.14400) [-1.78122]	-0.008310 (0.45290) [-0.01835]
D(LMANQ(-1))	10.09886 (20.6770) [0.48841]	0.038586 (0.18623) [0.20720]	0.313846 (0.19916) [1.57588]	-0.889253 (0.43642) [-2.03762]	0.047476 (0.17358) [0.27351]	-0.238778 (0.54593) [-0.43738]

D(LMANQ(-2))	-7.429210 (22.9369) [-0.32390]	0.263280 (0.20658) [1.27447]	-0.017197 (0.22092) [-0.07784]	-0.209631 (0.48411) [-0.43302]	0.152570 (0.19255) [0.79236]	-0.536936 (0.60559) [-0.88663]
D(LCON(-1))	-9.842424 (13.2065) [-0.74527]	0.081991 (0.11894) [0.68932]	-0.094562 (0.12720) [-0.74340]	-0.294188 (0.27874) [-1.05541]	0.104850 (0.11087) [0.94573]	-0.202962 (0.34869) [-0.58208]
D(LCON(-2))	-27.27855 (11.7953) [-2.31266]	-0.177564 (0.10623) [-1.67144]	-0.290560 (0.11361) [-2.55754]	0.143990 (0.24896) [0.57837]	-0.040991 (0.09902) [-0.41396]	0.119439 (0.31143) [0.38352]
D(LMS(-1))	53.08108 (23.9970) [2.21199]	0.283871 (0.21613) [1.31344]	0.369225 (0.23113) [1.59746]	-0.330956 (0.50649) [-0.65343]	0.334999 (0.20145) [1.66292]	-0.605373 (0.63358) [-0.95548]
D(LMS(-2))	7.915541 (22.9448) [0.34498]	0.003107 (0.20665) [0.01504]	-0.187368 (0.22100) [-0.84783]	-0.347577 (0.48428) [-0.71772]	0.249576 (0.19262) [1.29570]	-0.294728 (0.60580) [-0.48651]
D(LEXR(-1))	29.90529 (13.4219) [2.22810]	-0.150021 (0.12088) [-1.24103]	0.104198 (0.12928) [0.80601]	-0.256049 (0.28329) [-0.90385]	0.024574 (0.11268) [0.21810]	0.065225 (0.35437) [0.18406]
D(LEXR(-2))	42.38710 (12.2944) [3.44768]	0.076779 (0.11073) [0.69339]	0.232688 (0.11842) [1.96500]	-0.406164 (0.25949) [-1.56524]	0.167185 (0.10321) [1.61985]	-0.289400 (0.32460) [-0.89155]
C	-20.26785 (9.36918) [-2.16325]	0.198995 (0.08438) [2.35823]	0.084704 (0.09024) [0.93863]	0.796912 (0.19775) [4.02990]	0.030548 (0.07865) [0.38839]	0.526779 (0.24737) [2.12951]
R-squared	0.608185	0.717200	0.538946	0.486352	0.563395	0.287713
Adj. R-squared	0.386725	0.557357	0.278350	0.196030	0.316619	-0.114885
Sum sq. resids	3179.215	0.257887	0.294937	1.416279	0.224053	2.216222
S.E. equation	11.75699	0.105889	0.113240	0.248148	0.098699	0.310415
F-statistic	2.746247	4.486890	2.068128	1.675214	2.283018	0.714641
Log likelihood	-134.8900	39.37305	36.88962	7.862651	41.97491	-0.421114
Akaike AIC	8.048106	-1.371516	-1.237277	0.331749	-1.512157	0.779520
Schwarz SC	8.657642	-0.761980	-0.627740	0.941285	-0.902621	1.389056
Mean dependent	-0.269251	0.198800	0.172131	0.241205	0.207153	0.168634
S.D. dependent	15.01303	0.159156	0.133302	0.276752	0.119393	0.293987

Table VIII: Post Estimation Test

Model I: Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.872335	Prob. F(1,34)	0.3569
Obs*R-squared	0.975589	Prob. Chi-Square(1)	0.3233

Model II: Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.742431	Prob. F(2,27)	0.4854
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Obs*R-squared	1.980869	Prob. Chi-Square(2)	0.3714
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Model II: Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.342323	Prob. F(2,21)	0.7140
Obs*R-squared	1.168196	Prob. Chi-Square(2)	0.5576

An Autosegmental Analysis of Tone Usage Among Yoruba-Speaking CVA-Aphasic Adults

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Abstract. This inquiry investigated tone use among Yoruba-speaking adults recovering from an aphasic insult/attack initiated by a cerebral vascular accident (CVA), otherwise known as a stroke. In pursuing the aim of the study, the research was guided by three research questions, namely, do Yoruba-speaking aphasic adults have the perceptual ability to perceive tone in the language; can Yoruba-speaking aphasic adults differentiate between the three lexical tones in the language; and which of lexical tones do Yoruba speaking aphasic adults find difficult to perceive? The study drew upon the theoretical and analytical scope of the autosegmental approach and a constructivist methodology paradigm inspired by a descriptive research design that used the qualitative approach. Data elicited from purposively sampled informants via structured interviews involving two groups of participants three aphasic Yoruba individuals and three Yoruba non-aphasic individuals in Nigeria. The purposive sampling was premised on informants' dialectal proficiency, availability and diversity, and occurrence of CVA (stroke). The aphasic subjects were identified with the initials AB, CD and EF to conform to confidentiality etiquette in clinical linguistics. For ethical consideration, the informants were required to fill in a consent form before eliciting data from them. Once that was done, the aphasics were availed 100 words from the combined Swadesh 200 and Ibadan 400 wordlist of essential and cultural items, recorded by the non-aphasic individuals who speak Yoruba as their first language, to identify which tones they perceive. The data elicited was analysed using the perceptual approach in which the recorded data was listened to several times to discover if adult Yoruba speakers that are aphasic were still able to recognise the high (ˉ), mid (ˊ) and low tone (ˋ) in words. The findings reviewed that Yoruba aphasics have diverse perceptual abilities of tone.

Furthermore, it was established that Yoruba aphasics displayed varying deficiencies in differentiating the three lexical tones of Yoruba. Of the three lexical tones (H, M and L), the unmarked M tone was consistent, while the H and L tones had varying perceptual outcomes among the CVA-aphasics. The implication of the finding is that tone recoveries among CVA-aphasics is never the same and, therefore, calls for various linguistic therapies according to each CVA-aphasic case.

Keywords: tone, aphasia, autosegmental analysis, cerebral vascular accident (CVA), Yoruba.

INTRODUCTION

From time immemorial, language has proven to be at the centre of human existence. It is the conduit of ideas by which humans have been able to initiate, sustain and sometimes destroy their day-to-day undertakings both in the private and public domains. Essentially, at the centre of language is the desire to perform many functions, such as the

need to non-instinctively communicate ideas, emotions and desires using voluntarily produced symbols; attaining cooperation through the use of arbitrary vocal symbols; interaction through, among others, habitually used oral-auditory arbitrary symbols; and infinite communication based on a finite set of rules. From the aforementioned perceived functions and nature of language,

linguists understand that language need not be articulated (i.e., need not be produced by organs of speech) because language can also be made of signs and movements.

Human language is expressed through spoken language, otherwise known as spoken language or simply speech [7]. Through speech, humans transmit their emotions, ideas and other intentions to co-interlocutors in everyday life. However, it is known that humans experience some language disorders associated with spoken language that are triggered by different variables. For example, some language disorders are triggered by premature birth; low birth weight; loss of hearing; autism; Fragile X syndrome (a genetic condition causing intellectual disability); Down syndrome (a genetic chromosome 21 disorder linked to developmental and intellectual delays); cerebral vascular accident (i.e. a 'stroke' in a layman's language); poor nutrition; brain injury; and cerebral palsy (a disorder of movement, muscle tone or posture due to abnormal brain development, often before birth). All these disorders will have a varying degree of language impairment on different aspects of language [20].

Additionally, some language disorders are initiated by an insult (i.e., an attack) to the brain areas responsible for the perception of human language (Wernicke's area) or those responsible for the production of human language (Broca's area). Such damages may happen on the brain's surface (cortical regions) or underneath it (subcortical

regions), resulting in various linguistic inabilities in an individual. Aphasia is the complete or partial loss of language abilities resulting from damage to the cortical and/or subcortical brain tissue. In contrast, the study of such language losses is referred to as aphasiology [18]. Thus, aphasia is not a disease but a symptom of brain damage. For this, neurologists (people who study the brain) refer to aphasia as a neurological disorder caused to some part of the brain. Causes of aphasia are many, but the commonest one is a Cerebral Vascular Accident (CVA), commonly known as a stroke [7]. From way back, aphasia as a neurological speech disorder has attracted diverse linguistic research mainly spread across the research angles of causes, symptoms and therapies for the different types of aphasia [10, 19, 21, 23]. This article looks at how Yoruba-speaking aphasic patients use tone after suffering an aphasic insult (i.e., aphasic attack) that leaves some neurological lesion (i.e., neurological damage) to their brain. It is essential to provide some salient geo-linguistic information about the Yoruba language.

As Figure 1 below indicates, Yoruba is a Bantu language spoken in the Southwestern part of Nigeria, West Africa. The country spans a total surface area of 923 769 square kilometres and, based on the projection of the latest United Nations data (2021), the nation has a population of 212,006,180. Nigeria's neighbours are Niger, Chad, Cameroon and Benin.



Figure 1 – Geographical concentration of Yoruba language in Nigeria

Apart from its geographical concentration indicated in Figure 1, Yoruba is also spoken in African countries like the Republic of Benin, Togo, Ghana, Cote D'Ivoire, Sudan and Sierra Leone. Furthermore, according to [1], the geo-linguistic distribution of Yoruba also spreads to Haiti, Caribbean Island, Trinidad and Tobago, among others.

Author [8] notes that Yoruba belongs to the Kwa sub-group of the Niger-Kordofanian Phylum of African languages in terms of its linguistic classification. This confirms [10] classification of African languages, which classifies Yoruba as a Bantu language belonging to the Kwa group of the Niger-Congo branch of the Congo-Kordofanian Family. On the African continent, the language has over 50-million speakers that include a dialectal area spanning Benin, Togo, with smaller migrated communities in Cote D'Ivoire, Sierra Leone and The Gambia. Yoruba phonology posits three types of tone: high (H) tone (´), mid (M) tone (˘) and low (L) tone (ˉ). The mid-tone is unmarked in Yorùbá orthography. A way of viewing the three-level tones in Yoruba is to think of the music note they correspond to, as shown in (1) below.

Tone	musical note correlation	
H	(mi)	(1)
M	(re)	
L	(do)	

As (1) shows, the L tone is the lowest at (do), while the H tone is the highest at (mi). In-between is the M tone at (re). Moving from L to H tone is upward graduation (crescendo), while from H tone to L tone is downward in nature (decrescendo). Tone marks in Yoruba are significant because they help distinguish between similar spelling words but differ in meaning. This is shown in (2) below:

Ilá (re mi)	“okra”	(2)
Ilà (re do)	“mark”	

In (2), it can be seen that the two words are distinguished by the H tone and the L tone. This shows that ‘Ilá’ (okra) and ‘Ilà’ (mark) are minimal pairs.

The current undertaking conducts an autosegmental analysis of tone usage among Yoruba-speaking aphasic adults. The study arises from a review of related literature highlighting that although many studies have looked at

aphasia, there have never been substantial studies in clinical linguistics that have explored neurological-related speech disorders among aphasic patients who speak some African languages. Because of those knowledge gaps above, this article investigates whether tonological processes triggered by certain lexical items present in the speech of Yoruba non-aphasic patients is evident in that of Yoruba aphasic patients.

Statement of the problem. Several studies have addressed different aspects of aphasia among people who have had an aphasic insult. Notable among these are [2], who explored the role of inflectional morphology in agrammatism; [23], who conducted a phonological analysis in the speech of Nigerian bilingual adults and [16], who examined the pronominal production resumption, focus constructions (who-questions) and focused declarative in Akan. However, despite studies conducted on grammar aspects of aphasic patients [2] and those that have looked at some African languages in Nigeria, no study has explored the tone of aphasic patients in Yoruba language. Additionally, although some studies undertook a phonological analysis in the speech of Nigerian bilingual adults [23], no study has concentrated on tone as a suprasegmental phoneme in Yoruba concerning Yoruba-speaking aphasic adults. This is the knowledge gap that this article explored. Therefore, the statement of the problem, put in question form, was: what are the aspects of tone usage among Yoruba-speaking aphasic patients?

Research questions. The current study was guided by the following research questions: 1) Do Yoruba-speaking aphasic adults have the perceptual ability to perceive tones in the language? 2) Can Yoruba-speaking aphasic adults differentiate between the three lexical tones in the language? 3) Which lexical tones does Yoruba speaking aphasic adults find difficult to perceive?

Literature review

As a neurological speech disorder, aphasia has attracted research by many linguists, especially in phonology, morphology, syntax, and semantics. This section of the article commits itself to review related literature around the statement of the problem related to aphasia.

The first notable study is that of [2], who justified the role of inflectional morphology in agrammatism. In their study, [2] selected three German-speaking agrammatic with a left hemisphere

lesion due to cardiovascular accidents as subjects in justifying the role of inflectional morphology. The agrammatic were addressed with the initials (CB, MH, HR). The areas of morphology investigated by [2] were gender, number and case. In their methodological and theoretical approach to the study, [2] justified the use of Lexical Morphological Theories (LMT) against Split Morphological Theories (SMT) as a linguistic framework to account for data for agrammatic patients [13, 15]. Authors [2] proved that the German aphasic patients studied demonstrated good command in the inflected forms of morphology. This study was similar to and different from that of [2] on three primary grounds. First, like authors [2], this study explored some of the linguistic manifestations associated with aphasic patients. Such an undertaking provides additional materials of related literature on the subject. However, while [2] looked at the morphology in grammatical sampled from agrammatic, this inquiry looked at tone use among Yoruba-speaking aphasics. Thirdly, by looking at Yoruba-speaking aphasics and not German-speaking ones, this research provided an additional dimension to studies on aphasia by looking at Yoruba – a language found in the Congo-Kordofanian language family – and not German, an Indo-European family language. Such a diverse choice in language family provided a remarkable shift in the subject of study and opened an avenue for comparative studies among aphasics in future studies.

The author [23] carried out a phonological analysis in the speech of 10 bilingual Nigerian adults with Wernicke's aphasia. Drawn from ten Wernicke aphasic adults as part of methodology sample size, and the optimality theory (OT) as his theoretical framework, [23] observed that certain phonological processes surface in the speech of Wernicke aphasic adults. The observed phonological processes were substitution, deletion and epenthesis, all of which affected consonants than vowels. In deletion, [23] observed m-deletion (e.g., 'problem' > 'proble'); d-deletion (e.g., 'proud' > 'prou'); and l-deletion (e.g., 'calendar' > 'caendar'). Substitution included the 'w' for 't' substitution (e.g., 'teach' > 'weach' manifesting substitution of 'w' for 't'; and 'yesterday' > 'festerday' in which 'f' is substituted for 'y'). In epenthesis, the aphasic patients displayed n-insertion (e.g., 'fee' > 'feen'; and 'stole' > 'stonle'); and u-insertion (e.g., 'fifty' > 'fifuty'). The current undertaking was similar to [23] only based on both of them focusing on aphasia in Nigerian adults. However, the

difference between the two is that while [23] explored the phonological aspects of Wernicke aphasics from the angle of phonological processes, this enquiry looked at the tone. A shift in focus from phonological processes to tone offered additional knowledge to the existing literature on Nigerian aphasics.

Authors [12] examined the function that direct and indirect speech plays in discourse comprehension. To back up their findings, they compared English and Dutch speaking individuals with and without aphasia. They analysed by developing an English version of the Dutch iPad-based Direct Speech Comprehension (DISCO) test. At the end of their research, they discovered that participants without aphasia performed better than those with aphasia; English speaking participants involved performed worse than Dutch participants, and direct speech contained in narratives were easier to understand than indirect speech. The current study differs from that of [12] based on it looking at the tone of aphasics. In this regard, it added more knowledge to that of [12].

Another notable study of [22] carried out a time reference analysis in Thai speakers with agrammatic aphasia. The analysis aimed to investigate if referring to the past, present, and future was possible among individuals with agrammatic aphasia. 23 Thai speakers participated in the research; 15 were agrammatic, while 18 were non-agrammatic. The research took production and auditory approach. The investigation results revealed that non-agrammatic Thai speakers had no difficulty with the past, present and future production and comprehension. However, agrammatic Thai speakers experienced difficulty in conditions that entails reference to the future. But in production, Thai speakers with agrammatism replaced the future time reference with negation. According to [23], the use of negation by the agrammatic Thai speakers might be because it helps to reduce their processing load. This study is similar to that of [23] based on being aphasia-related. However, while [23] looked at aspects of agrammatism in terms of tense, this study explored tone among Yoruba-speaking adults. In this regard, it was unique.

Lastly, [16] research stems from the premise that the linguistic phenomenon of resumption is understudied in agrammatism. To account for this, they carried out an analysis to examine the production of (pronominal) resumption, focus constructions (who-questions). They focused on

declarative in Akan (a tonal language spoken in Ghana and parts of Cote D'Ivoire). The research presented two groups of participants, five with left hemisphere brain-damaged suffering from agrammatic aphasia and ten non-brain-damaged speakers. Authors [16] investigation led to the following two key findings in Akan: firstly, linguistic tones and resumptive pronouns, as well as clause determiners, were intact in Akan agrammatic speakers; and secondly, that production of declarative sentences in derived word order was impaired, but wh-object questions were relatively well-preserved by Akan agrammatic speakers. Though equally centred around aphasia on one of the African languages, this research did not look at the linguistic phenomenon of resumption in agrammatism but on the tone from an autosegmental analysis perspective. The difference in African language (from [16] in this study) provided a broadened platform of related literature on aphasia vis-à-vis African languages.

Theoretical and conceptual frameworks

Autosegmental approach. This enquiry employed the autosegmental approach to capture tonological aspects of Yoruba words. First proposed by [10], the autosegmental approach to phonology posits that the relationship among phonological units must be arranged in hierarchical nature known as tiers for easy identification. Unlike previous approaches to phonology like generative phonology that linearly presented phonological phenomenon, the autosegmental approach addresses challenges associated especially with tonal representation by doing so in a multi-tiered and not the linear string of segments. The author [24] notes that [10] proposes an autonomous tone representation from the rest of the segments. Regular segments such as consonants and vowels are represented at one level, and tone is above them, joined by association lines to link the two tiers. "For instance, the syllable, the stress, the phonological processes, and the distinctive features are organised in a well-established internal hierarchical order" [24].

Within the autosegmental approach, the study used the perceptual approach to analyse tone among Yoruba-speaking aphasic patients.

Understanding aphasia. To help the reader best appreciate the discussions of the findings presented in this enquiry, we must provide more details about aphasia. Although aphasia is widely

used as an umbrella term to mean either partial loss or complete loss of language as a result of damage to parts of the brain responsible for language, some literature distinguishes between partial language loss and complete language loss by calling the former dysphasia and the latter aphasia [7]. In this article, we used 'aphasia' to mean language loss, regardless of whether it is a partial or complete loss, as a result of damage to the part of the brain responsible for language. It is also worth noting that aphasia is not a disease but a symptom of brain damage. For this, neurologists refer to aphasia as a neurological disorder caused to some part of the brain. Causes of aphasia are many, but the commonest one is a Cerebrovascular Accident (CVA), popularly known as a stroke.

There are many types of aphasia, and they derive their name from the type of criterion used in classifying them, hence interlinked. Depending on the criteria used, aphasia can be viewed as temporal or permanent aphasia; receptive or expressive aphasia; Broca's, Wernicke's or global aphasia; and so forth. We shall now discuss the aforementioned different types of aphasia.

Temporal and permanent aphasia. Temporal and permanent aphasia are classified based on during aphasic insult (i.e., aphasic attack). Temporal aphasia lasts for a few hours or even a few days. Persons showing signs of temporal/transient aphasia recover within a few days. Suppose they do not do so within a few days, in that case, most transient aphasics will recover within three months, after which complete recovery is unlikely as permanent aphasia (as the name implies) would have kicked in by then [7, 18].

Expressive and receptive aphasia. Clinical linguists distinguish between expressive and receptive aphasia using the criterion of what aspects of language are affected by an aphasic insult. Expressive aphasia applies to people who have problems in expressing themselves in speech (speaking and writing). For example, the person may know what they intend to communicate but may not find words to use. In other words, they have fluency problems. Because of this, expressive aphasia is also called non-fluent aphasia.

In receptive aphasia, the patient is fluent but has problems understanding language.

Broca's, Wernicke's and global aphasia. The third alternative criterion used in classifying aphasia is looking at the brain areas affected by aphasia. This is the most widely used criterion, and it typically

classifies the types of aphasia into Broca's aphasia, Wernicke's aphasia, and global aphasia.

Broca's aphasics may understand speech, but their ability to produce language is greatly affected, whether in writing or speech. Broca's aphasia usually happens when the part of our brain called the Broca's area (responsible for language production) is damaged [7]. In most cases, injury to the interior frontal gyrus and the linguistic areas of the motor cortex, which is the frontal lobe where the Broca's area is situated, usually results in Broca's aphasia. For example, suppose a person with Broca's aphasia has limitations in the ability to produce writing. It is said that he has a form of Broca's aphasia called *agraphia* (i.e., inability to write). There are also people with Broca's aphasia who can write but just cannot write coherently. Such is said to have a type of Broca's aphasia known as *dysgraphia* (i.e., inability to write coherently). On the other hand, persons with Broca's aphasia who display difficulties in speaking are said to have a variant of Broca's aphasia called *dysphasia* (i.e., inability to speak coherently). When it comes to reading, complete inability to read in Broca's aphasics (i.e., people with Broca's aphasia) are called *alexia*, and partial inability to read due to Broca's aphasia is classified as *dyslexia*.

Unlike Broca's aphasia, Wernicke's aphasia is caused by injury to the brain's temporal lobe where the Wernicke's area (an area in our brains primarily responsible for language processing) is located. People having Wernicke's aphasia have a problem of retrieving words from their memory and tend to define or describe something instead of mentioning it (e.g., they would say "something you sit on" instead of simply mentioning "chair"). They also exhibit problems in using determiners (e.g., "the") and pronouns (e.g., "he/she"). Coming this far, you would notice that Broca's aphasia corresponds to expressive aphasia while Wernicke's aphasia is the same as receptive aphasia above. The only difference is the criterion used in naming.

The third type of aphasia under the third alternative criterion of classifying aphasia is global aphasia. Global aphasia gets its name from its severity scale on the patient as language impairment involves both Broca's and Wernicke's areas. Survivors with global aphasia cannot understand speech or speak, although some global aphasics can still communicate using written language [19, 23, 24, 25, 26].

Some other types of aphasia termed based on regions of the brain affected include conduction aphasia (a type of aphasia in which the aphasic displays fluent speech output but has severely impaired repetition abilities as a result of interferences in cortical pathways between the Broca's area and the Wernicke's area); transcortical motor aphasia (whereby a person can repeat things easily but are not fluent because of impaired connection between the Broca's areas and its surrounding frontal lobe association areas); and transcortical sensory aphasia where an individual displays compulsive repetitions, otherwise known as *echolalia* in clinical linguistics [7, 18].

This article focused on tone usage among Yoruba-speaking aphasic adults from the perspective of autosegmental analysis.

METHODOLOGY

Due to research questions that sought to establish reality and knowledge descriptively, the present study was framed within the ontological and epistemological frontiers of the constructivist paradigm. As opposed to the positivist paradigm, which views reality and knowledge in terms of quantitative terms, the major postulation of constructivism is the idea that reality and knowledge can be attained non-quantitatively as long as the data collection and analysis is, firstly, systematic and transparent and, secondly, the interpretation is derived directly from the data being observed [9, 17]. Within the constructivist paradigm is a descriptive research design because such a design essentially answers the questions 'what', 'who', 'where', 'when' and 'how' by using descriptions [4, 6, 14].

The qualitative approach was used in the descriptive research design. Data were elicited from informants via structured interviews involving two participants, notably three aphasic Yoruba individuals and three Yoruba non-aphasic individuals in Nigeria. The informants were selected via purposive sampling based on their dialectal proficiency, availability and diversity, and cerebral vascular accident (CVA), commonly referred to as a stroke. The aphasic subjects were identified with the initials AB, CD and EF to conform to confidentiality etiquette in clinical linguistics [2].

Before the elicitation of data from informants, the informants were required to fill a consent form. A hundred words were picked randomly from the combined Swadesh 200 and Ibadan 400 wordlist of essential and cultural items (i.e., the Ibadan 500

wordlist). The aphasic individuals were given a tape of 100 Yoruba words, recorded by the non-aphasic individuals who speak Yoruba as their first language, to identify which tones they perceive. The data elicited was analysed using the perceptual approach in which the recorded data was listened to several times to discover if adult Yoruba speakers that are aphasic were still able to recognise the high (´), mid (˘) and low tone (ˉ) in words, henceforth the H, M and L tones respectively.

RESULTS AND DISCUSSION

The study established that aphasics AB, CD and EF displayed varying perceptions of tone in some selected words that made up the combined Swadesh 200 and Ibadan 400 wordlist of essential and cultural items. The findings are presented in Table 1 below.

Table 1 – Merged Swadesh 200 and Ibadan 400 wordlist of essential and cultural items

S/N	English word	Yoruba translation	Tone	A.B tone perceived	C.D tone perceived	E.F tone perceived
1	Snail	Ìgbín	LH	LM/M	LH	LMH
2	Carry	Gbé	H	M/L	LL	H
3	Stand	Dìde	LM	M/L	HL	LM
4	Beard	Irun àgbòn	MLL	LM	LHHH	LMML
5	Friend	Òré	LH	M	LH	LH
6	Buy	Rà	L	L	HH	L
7	Disappear	Paré	MH	M	HH	MH
8	Farm	Oko	MM	M/L	HH	MM
9	Vehicle	Ọkọ	ML	L	LH	ML
10	Penis	Okó	MH	M	LH	MH
11	Syllable	Sílábù	HHL	LM	HH	HHL
12	Rat	Èku	MM	M	LH	Unanswered
13	Bolanle	Bólánlé	HHHH	LM	LHH	Unanswered
14	Hunter	Ọḍe	MM	M	LH	Unanswered
15	Fool	Ọḍe	LL	L	HH	Unanswered
16	Describe	Şàlàyé	LLH	LM/M	HHH	MMH
17	Yoruba	Yorùbá	MLH	LM	HHH	MMH
18	Trousers	Şòkòtò	LLL	LM	LHH	LLL
19	Aeroplane	Ọkọ òfúrufú	M.L.L.H.M.H	LM	L.H.L.H.H.H	Unanswered
20	Brother	Ègbón	LH	M	LH	LH
21	School	Ìlé-èkọ	M.H.L.H	M	L.H.H.H	M.H.L.H
22	Slate	Sílèètì	HHLL	LM/M	LHH	HHL
23	Calabash	Igbá	MH	M/L	LH	MH
24	Cat	Olóngbò	MHL	L/M	LHH	MHL
25	Charcoal	Èédú	LHH	LL	HH	Unanswered
26	Chief	Olóyè	MHL	MM	LHH	MHL
27	Dance	Jó	H	M	H	H
28	Day	Ojọ	MH	LM	HH	MH
29	Divide	Pín	H	M/L	H	HH
30	Eighteen	Méjídínlógún	HLHHH	L	HLHHH	Unanswered
31	Faeces	Ìgbé	LH	M	LH	LH
32	Firewood	Igi ìdáná	MM.LHH	LM		Unanswered
33	Forget	Gbàgbé	LH	LM	HH	LH
34	Goat	Èran	MM	LM	LHH	MH
35	Guinea fowl	Èyẹlé	MMH	LM/M	LHH	LLH

S/N	English word	Yoruba translation	Tone	A.B tone perceived	C.D tone perceived	E.F tone perceived
36	Grinding stone	Òkúta Ìlọta	L H M. L M M	L M/ M	L H H. H H H	Unanswered
37	Head	Orí	M H	M	L H	M H
38	Hold	Mu	M	M	M	M
39	House	Ilé	M H	L M	L H	M H
40	Kolanut	Obì	M L	L M	L H	L H
41	Lizard	Alàngbá	M H L H	L M	L H H	Unanswered
42	Masquerade	Eégún	H H	M	L H	L H
43	Monkey	Òbọ	L M	M	L H	L M
44	Nail	Ìso	L M	M	L H	L H
45	Neck	Orùn	M L	M	L H	M L
46	Nine	Mésàn-án	H L H	L/M	H H	Unanswered
47	Okra	Ilá	M H	M/L	L H	M H
48	Orange	Osàn	M L	M/L	L H	M L
49	Palm wine	Èmu	M M	M	H H	H H
50	Pound	Gún	H	M	H	H
51	Rain	Òjò	L L	L	L H	L L
52	Saliva	Itọ	M H	M	L H	M H
53	Sand	Iyèpè	M L L	L M	L H H	M L L
54	Salt	Iyọ	M L	M	L H	M L
55	Say	Sọ	M	M	H	Unanswered
56	See	Rí	H	M	H H	H
57	Seventy	Ààdórin		Unanswered	L H H	Unanswered
58	Shoe	Bàtà	L L	L M	H H	L L
59	Short	Kúrú	H H	M	H H	Unanswered
60	Small	Kékeré	H M H	M M	H H H	Unanswered
61	Smell	Rùn	L	L	H	Unanswered
62	Sing	Kọrin	M M	M	H H	Unanswered
63	Six	Méfà	H L	L M	H H	H L
64	Sit	Jókòó	H L H	L M/ M	H H	H L
65	Stomach	Ikùn	M L	M	M H	Unanswered
66	Swallow	Gbémì	H L	M	H H	H L
67	Steal	Jígbé	H H	M/L	H	H
68	Thief	Olè	M L	L	L H	M L
69	Toad	Òpòlọ	L L H	L M	L H H	L L H
70	Tortoise	Ìjàpá	L L H	M	L L H	L L H
71	Town	Ìlú	L H	M	L L	L H
72	Tree	Igi	M M	M/ L	L H	Unanswered
73	Vagina	Obò	M L	L	L L	L L
74	Village	Abúlé	M H H	L M	L L H	Unanswered
75	Urinate	Tò	L	L	L	H
76	Vomit	Bì	L	L	L	H
77	War	Ogun	M M	M M	L H	Unanswered
78	Water	Omi	M M	M	L H	M H
79	Well	Kànga	L M	L	L M	Unanswered
80	Walk	Rin	L	L	L	H M
81	Buttocks	Ìdí	L H	L M/ M	L H	L H
82	Burn	Jo	H	M	H	Unanswered
83	Dirty	Dòtí	L H	L M/ M	L H	L H
84	Dog	Ajá	M H	M	L H	M H
85	Donkey	Ketekete	M M M M	Unanswered	L L L L	Unanswered

S/N	English word	Yoruba translation	Tone	A.B tone perceived	C.D tone perceived	E.F tone perceived
86	Dream	Àlá	L H	M	L H	M H
87	Fish	Eja	M M	M/L	H H	L M
88	Fruit	Èsọ	L M	L	H H	L M
89	Left	Osì	M L	L M	M H	Unanswered
90	Heavy	Wúwo	H M	M	H L	M M
91	Success	Àseyorí	L M M H	L M/ M	L H L H	L H M H

Based on the findings tabulated in Table 1, the study established the following about the CVA-aphasics **A.B**; **C.D**; and **E.F**. The discussions are captured according to the research objectives.

Perceptual ability of Yoruba tone by CVA-aphasics A.B., C.D. and E.F. The study established that the CVA-aphasic identified as **A.B** did not perceive a high tone during the perceptual analysis. He gave 'either... or answers'. He was indecisive. When he was re-asked what tone, he could perceive when the audio recording was played again, he heard a tone different from the initial one he perceived, as seen in examples (1) and (2) in Table 1 above. This showed that he had receptive aphasia of the H tone. According to [7], receptive aphasics may be fluent, aware of the voices around them and able to see the print around but have difficulties making sense of what they hear or the printed word. In the case of **A.B**, he could hear the tone but would confuse it. Regarding regions of the brain affected, it is evident that **A.B**'s failure to perceive H tone has to do with his H-tone erasure or unclear storage in his Wernicke's area.

The only tone perceived accurately were the tones evident in mono-syllabic words, except mono-syllabic words with a high tone. This is illustrated in Table 2 below.

Table 2 – Tone perceptual ability of aphasic **A.B** in mono-syllabic words

No	English word	Yoruba translation	Tone	A.B tone perceived
1	Buy	Rà	rà (L)	(L)
2	Hold	Mu	mu (M)	(M)
3	Say	Sọ	sọ (M)	M
4	See	Rí	rí (H)	(M)
5	Dance	Jó	jó (H)	(M)

As Table 2 (1)–(3) indicates, Subject **A.B**. perceived tone accurately in mono-syllabic words with M and L tones. However, when presented with mono-syllabic words with H tone, **A.B**. would fail to perceive it as H tone but as M tone shown in Table 2 (4) and (5). This confirms H-tone and M-tone complications in the cortical or subcortical language receptive areas of his brain.

In di-syllabic words, it was established that CVA-aphasic identified as Subject **A.B**. perceived just a single tone while in words with more than two syllables, he perceived just two tones and, at rare times, a single tone. This is illustrated in Table 3 below.

Table 3 – Tone perceptual ability of aphasic **A.B** in di-syllabic words

No	English word	Yoruba translation	Tone	A.B tone perceived
1	Penis	okó	okó (M H)	(M)
2	Hunter	ode	ode (M M)	(M)
3	Fool	òdè	òdè (L L)	(L)
4	Syllable	sílábù	sílábù (H H L)	(LM)
5	Bolanle	bólánlé	bólánlé (H H H H)	(LM)
6	Describe	sàlàyé	sàlàyé (L L H)	(LM/M)
7	Slate	sílèètì	sílèètì (H H L L)	(L M/ M)

Table 3 presents the perceptual ability of CVA-aphasic **A.B**. vis-à-vis tone in di-syllabic words. As can be seen in Table 3 (1)–(3), in cases where **A.B**. was presented with words containing more than one syllable, **A.B**. always perceived a single tone.

As a result, the CVA-aphasic resorted to using the M tone for di-syllabic words that blend M and H. This was similar to his tendency to substitute the H tone with the M tone in mono-syllabic words, as earlier observed in Table 2 (4) and (5). We wish to

argue that the demotion in H tone to L tone could result from two possibilities. Firstly, such cases could be attributed to less involvement in articulating L tones than H tones after a stroke since H tones involve more energy and muscular involvement than L tones. Secondly, it could also be that Subject **A.B** has targeted lexical erasure in his Wernicke's area and thereby exhibiting receptive aphasia or Wernicke's aphasia to the H-tone and M tones.

For words with more than two syllables, **A.B** just perceived two tones and, at rare times, a single tone as seen in Table 3 (4) and (5) and Table 3 (6) and (7), respectively. We think such a tendency is due to either extra muscular involvement and energy associated with words that have more than two syllables (hence CVA-aphasics would instead reduce such to two syllables only) or possible erasure in the subject's language receptive regions of his brain [7]. From their articulations, it is also possible that **A.B**'s Wernicke's area is probably intact. Still, the production of what he already knows (linguistic competence area) is hampered by limitations of the scale of damage to Broca's area (linguistic performance area). In any case, linguistic therapies towards **A.B** would include focusing more on H tone production and help him extend his energies towards more syllables in disyllabic and words with more than two syllables.

Concerning CVA-aphasic identified as **C.D**, it was observed that he articulated some tones correctly (e.g. see word item 1, 5, 20, 27, 29 and 31 in Table 1). However, there were instances whereby **C.D** substituted the M tone for the L tone; substituted the M tone for the H tone; and instances where he substituted the L tone for the H tone. This is shown in Table 4, Table 5 and Table 6 below.

Table 4 – **C.D**'s substitution of mid (M) tone for low (L) tone

No	English word	Yoruba translation	Tone	C.D tone perceived
1	Kolanut	Obì	obì (M L)	(L H)
2	Lizard	Alàngbá	alàngbá (M H L H)	(L H H)
3	House	Ilé	ilé (M H)	(L H)
4	Neck	Orùn	orùn (M L)	(L H)
5	Okra	Ilá	ilá (M H)	(L H)
6	Saliva	Itọ	itọ (M H)	(L H)
7	Sand	Iyẹ̀pẹ̀	iyẹ̀pẹ̀ (M L L)	(L H H)

Table 4 demonstrates how **C.D** substituted the M tone for the L tone. In this respect, **C.D** displayed a similar yet different tone perception to Subject **A.B**. While **A.B** and **C.D** both interpreted some tone differently, **C.D** generally substituted M tone for the L tone, as shown in Table 4. In contrast, **C.D** generally interpreted H tone as M tone as illustrated in Table 2 (4) and (5) above, albeit in monosyllabic words.

C.D also substituted the M tone for the H tone, as shown in Table 5 below.

Table 5 – **C.D**'s substitution of mid (M) tone for high (H) tone

No	English word	Yoruba translation	Tone	C.D tone perceived
1	Disappear	parẹ	parẹ (M H)	(H H)
2	Day	Ọjọ	ọjọ (M H)	(H H)
3	Palm wine	Ẹmu	emu (M M)	(H H)

Table 5 demonstrates **C.D**'s tendency to substitute the M tone for the H tone. This is a unique situation from Subject **A.B**, who could not articulate the H tone in most words but substitute it with the L tone. This finding provides proof of the varying perceptual tendencies among CVA-insults among aphasics. Two individuals may not display identical weaknesses. This is because aphasic insults may affect different brain areas, leading to differential inabilities and recovery trajectories, as alluded to above.

A further exciting finding of **C.D** was that, for some words, he would substitute the L tone for the H tone. It can be observed that **C.D** is very inconsistent in tone perception. The substitution of L tone for H tone is illustrated in Table 6 below.

Table 6 – **C.D**'s substitution of low (L) tone for high (H) tone

No	English word	Yoruba translation	Tone	C.D tone perceived
1	Forget	Gbàgbé	gbàgbé (L H)	(H H)
2	Shoe	Bàtà	bàtà (L L)	(H H)
3	stand	dide	dide (L M)	(H L)

Table 6 confirms that for every L tone, **C.D** perceives it as an H tone, and for every M tone, it is interpreted as an L tone as earlier alluded to in Table 4 or as H tone as shown in Table 5. Unfortunately, due to ethical reasons, the researchers could not ask medical experts who handled the clients what caused such inconsistencies, as shown by **C.D**. It is, however, hoped that the finding of **C.D** will open further research into the dynamics of tone perception among CVA-triggered aphasics and the neurological and non-neurological factors that cause such.

Unlike Subjects **A.B** and **C.D**, subject **E.F** perceived a lot of tones correctly (e.g., see Table 1, word items 5-10; 18, 23, 24, 26, 28, 31, 33, 37, 39, 43, 45, 47, 48, 66; 67-71; 81, 83, 84). However, **E.F** manifested several instances whereby he found it difficult to perceive the tones in some words, and the researchers tagged these instances were tagged as 'unanswered'. Examples of unanswered word items are tabulated in Table 7 below.

Table 7 – **E.F**'s unanswered word items

No	English word	Yoruba translation	Tone	E.F tone perceived
1	Rat	eku	eku (M M)	Unanswered
2	Bolanle	Bóláńlé	bóláńlé (H H H H)	Unanswered
3	Hunter	ọḁ	ọḁ (M M)	Unanswered
4	Fool	òḁ	òḁ (L L)	Unanswered
5	Charcoal	Èédú	èédú (L H H)	Unanswered
6	Short	Kúrú	kúrú (H H)	Unanswered
7	Small	kékeré	kékeré (H M H)	Unanswered

Table 7 presents a unique finding regarding **E.F**. Although **E.F** could answer most questions correctly with the right tone than both **A.B** and **C.D** combined (see Table 1 above), he also had a lot of questions tagged 'Unanswered'. **E.F** is unique because, on the one hand, he gave the correct tone to most words but, on the other hand, could not articulate some words altogether. Could it be that his language perception centre has some erasure of some words? We cannot attribute such selective abilities to transcortical sensory aphasia or transcortical motor aphasia because it was evident that **E.F** had no significant problems with the

language command network between the Broca's area and the Wernicke's area. With further permission, we are sure future research can look at cases like those related to **E.F** and provide valuable insights to such's language centres.

Tone competence among Yoruba-speaking aphasic adults. This study revealed that tone differentiation is possible among Yoruba-speaking aphasic adults but with varying competence in differentiation. For example, subject **E.F** responded to most word items compared to Subjects **A.B** and **C.D** (see Table 1 above). On the other hand, although Subject **C.D** got some tones correct, he also gave the most inconsistent tone patterns compared to Subjects **A.B** and **E.F**. Additionally, although **A.B** managed to differentiate some tones in some words; he could not even respond to some word items just like Subject **E.F**.

The findings on differential tone competence confirmed studies in clinical linguistics that have established that aphasics recover differently depending on the duration of the CVA-triggered aphasic insult [7]. Due to their ability to still perceive some tones correctly, it is evident that **A.B**, **C.D** and **E.F** have temporal or transient aphasia instead of permanent aphasia, which reflects more extraordinary incompetence due to the more extended period taken to recover. Regarding tone aspects affected by the CVA, the fact that **A.B**, **C.D** and **E.F** can express themselves with little difficulty entails that their medical condition of expressive aphasia is not bad. However, that Subjects **A.B** and **E.F** could not reply to some word items provided to them is an indication that they have some minor prevalence of receptive aphasia. In other words, the inability of **A.B** and **E.F** to provide tone to some word items provides possibilities of lexical erasure in their Wernicke's area [7, 18].

Most perceptually challenging lexical tones. During data collection from subject **A.B**, **C.D** and **E.F** words with similar letters which are distinguished by tones (e.g., see Table 1, word items 8-10 and 14-15 such as oko 'farm'; ọkọ 'vehicle'; okó 'penis'; ọḁ 'hunter'; and òḁ 'fool') threw the subjects in a state of confusion as they had difficulty identifying the tones evident in those words, even though the audio was played several times. Though, unlike **A.B** and **C.D**, Subject **E.F** perceived the tones of 8-10 correctly, all the subjects perceived the tones of the words in 14-15 wrongly.

Based on the findings, it can be deduced that words written the same but pronounced

differently (homographs) posed the most significant challenge to **A.B**, **C.D** and **E.F** regardless of their varying and diverse tonological competence.

CONCLUSIONS

This study looked at tone usage among Yoruba-speaking CVA-aphasic adults from the autosegmental approach to phonology. It did this by focusing on the subsequent research questions: do Yoruba-speaking aphasic adults have the perceptual ability to perceive tones in the language; can Yoruba-speaking aphasic adults differentiate between the three lexical tones in the language; and which of lexical tones do Yoruba speaking aphasic adults find difficult to perceive? The findings have revealed that aphasics display different abilities on tone depending on factors such as

severity, duration and parts of the brain affected by the aphasic insult. This finding confirms other researches already done on aphasia, as alluded to by [7]. In terms of literature review, the current enquiry adds more knowledge to earlier studies on aphasia such as that of [23], who explored the role of inflectional morphology in agrammatism; [23], who conducted a phonological analysis in the speech of Nigerian bilingual adults; and [16] who examined the pronominal production resumption, focus constructions (who-questions) and focused declarative in Akan. The significant implications of the current study are that language therapists and speech pathologists need to contextualise each aphasic case since no two aphasics may necessarily reflect identical recovery patterns and tonal competence after CVA-triggered aphasia.

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История изучения теории знаков в Восточном языкознании и философии

The History of the Study of the Sign Theory in Oriental Linguistics and Philosophy

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Аннотация. В статье рассматривается история развития знаковой теории в Восточном языкознании и философии. В ходе исследования автор опирается на историко-описательный метод языкознания с целью анализа статуса знаковой теории в тюркских литературных источниках.

Ключевые слова: история исследования; теория знаков; языковеды и философы Востока; античный мир; развитие языкознания; связь с мышлением.

Abstract. The article considers the history of the development of the sign theory in Oriental linguistics and philosophy. In the course of the research, the author relies on the historical-descriptive method of linguistics to analyse the status of the sign theory in Turkic literary sources.

Keywords: research history; sign theory; linguists and philosophers of the East; the ancient world; development of linguistics; connection with thinking.

ВВЕДЕНИЕ

История исследования теории знака призвана дать общую систематическую формулировку воззрений на сущность, строение и роль знака. История знака излагает процесс познания. Теория знака находится в состоянии постоянного развития. Разносторонность подходов к изучению теории знака является следствием сложности языка и его связей с мышлением, с человеком, с обществом, с объективной действительностью.

В древней Индии исследование языка вообще, и теории знака в частности, носило практический характер. В Античном мире проблемы теории знака заняли видное место в рассуждениях философов. История языкознания на Востоке в первую очередь связана с арабским языкознанием. Развитие языкознания на Востоке было обусловлено практическими причинами – большими расхождениями между языком Корана и живыми диалектами. Многие ученые тюркского про-

исхождения внесли огромный вклад на развитие языкознания Востока.

Взаимосвязь логики, языка и мышления является основой для всех наук: философии, истории, лингвистики и т. д. Неслучайно проблема семиотики – знаков играет важную роль в теории развития научных направлений. История теории знаков очень древняя. Его корни восходит к V веку до нашей эры. В трудах Платона мы находим некоторые предположения о теории знаков. В диалоге «Софисты» Платона ставится такой вопрос: возможен ли взаимосвязь между именами?

В диалоге «Кратиль» Платон объясняет сущность речи и обсуждает знаковые системы. Аристотель, с другой стороны, различал сложные знаки, состоящие из отдельных частей и значимых форм, и бессмысленные составные знаки. Он писал, что существуют также сложные языковые символы, компоненты которых не имеют значения.

Стоики же четко отделяли материальную сторону знака от смысла. Они назвали смысл духом, а вещи – системой символов, в которой они отражаются и реализуются.

В Коране, который является священной книгой ислама, есть много знаков и символов. Значения особых знаков, данных в начале каждой суры в Коране, остаются неясными и сегодня, и исламские ученые заявляют, что значение этих знаков принадлежит только Аллаху (Богу) и что никто не знает их значения, кроме Всемогущего Аллаха.

Азербайджанский востоковед И. Аббасов по данному поводу пишет: «В Коране есть музыка, которая появляется при произнесении знаков, букв, слов и предложений, приятна для слуха и души и не встречается в других словах. Между буквами и действиями знаков Корана существует совершенная гармония. Звуки букв также гармонируют между собой и сопровождаются особой музыкой [1, с. 331–332].

Ислам принимает три типа знаков: божественный знак, объективный знак и субъективный знак. Согласно исламской философии, божественный знак является предметом прямого богословия, а объективный знак – предметом философии. Что касается субъективного знака, исламские мыслители, сочетая его с объективным знаком, приходят к выводу, что субъективный знак не может оставаться вне предмета философии.

РЕЗУЛЬТАТЫ ИССЛЕДОВАНИЯ

Аль-Фараби, Ибн Сина и другие, средневековые тюркские востоковеды, также обсуждали проблему знаков [11, с. 31–34].

Ибн Сина написал научный труд под названием «Знаки». В данном произведении он различал три типа знаков: мысленные, естественные и искусственные. Он особо отмечает активность ума как причину ментальных сигналов. То есть человек силой своего разума называет наблюдаемые события. Это продукт человеческого интеллекта – комментировать дым, поднимающийся от очага, или называть следы медведя, идущего по лесу, «трепещущими». Однако симптомы эмоционально-психологического состояния можно отнести к естественным знакам.

Покраснение на лице можно рассматривать как признак болезни или застенчивости, а побеление лица – как признак страха. Ибн Сина приводит пример написания или произнесения третьего типа знака. Оба эти знака сознательно созданы человеком. Первый создан людьми для отражения устной формы языка в письменной форме, а второй – для выражения идей в словах.

Ибн Сина пытался объяснить связь между предметом и значением знаков. Предмет знака и ценность реальности играют важную роль в понимании его значения. Знаки, созданные при участии общества, являются отражением реальной действительности на языке. Ибн Сина указал три типа словесных знаков: согласованный знак; обозначающий знак; знак необходимости. Первый тип знаков основан на принципе согласования того или иного слова языка для всех членов общества [11, с. 61–62].

По мнению Н. Гусейнли, Ибн Сина в своей теории знаков опередил Г. Пирса и Ч. Морриса на несколько веков перед, еще в X веке синтаксическое он затрагивал данный вопрос в синтаксическом (отношение друг к другу), семантическом (отношение к действительности) и прагматическом (отношение к тому, кто ее использует) аспекте [3, с. 36–40].

Насреддин Туси известен как ученый-энциклопедист и выдающийся философ. Ученый в свое время высказал выдающиеся идеи о теории знаков, учении о бытии, познании и логике. Основываясь на позиции азербайджанских философов Аль-Фараби, Ибн Сины и А. Бахманьяра, он писал, что существование делится на две части, если это необходимо и возможно. Он сосредоточился на толковании возможных знаков [2, с. 79–82].

М. Динормоев пишет: «Насреддин Туси, будучи преемником своего учителя Ибн Сины, развил свои идеи по философии, включая семиотику, в основном в своих произведениях «Шарх аль-Ишарат» и «Асас аль-Иктибас». Смысл очень четко выражен в Н. Туси. Когда значение не общее, его значение – особое имя. Иногда его используют как «этот человек».

Из-за комбинации знака (заменителя) другие не могут быть включены в его содержание.

Или это не исключает общности его смысла, поэтому его называют общим понятием.

Например, «человек», «солнышко», «анко». Первое из этих слов действительно указывает на множество людей, второе означает только одно, а третье ничего не значит. Таким образом, описание содержит значительную часть каждого из этих лиц» [2, с. 81–95].

Н. Туси в своем произведении «Шарх аль-Ишарат» (Коментарие знака) отмечает, что «если человек не знает, что такое пламя, когда он видит дым впервые, он не может рассматривать первое как источник второго. Но затем, когда он видит свет огня, он понимает, что источником дыма является пламя. Когда он чувствует его жар, он понимает, что огонь обладает способностью нагревать. Наконец он видит горящее тело. Таким образом он увеличивает свои знания, пока не достигнет до уровня истинного знания» [11, с. 78–80]. По учениям Н. Туси знак имеет странную природу, сосуществует со временем и пространством. По его словам, знак времени и пространства и их неотъемлемый атрибут – высшая форма реальности.

Ученый отмечал невозможность разделения времени, пространства и знака. Согласно Н. Туси, какую бы функцию Бог ни выполнял во Вселенной, движущей силой этой функции является знак. Знак – это метафизическая сила, а не физическая, и по своей природе существует иерархическая: знак и интеллект. Знак представляет интеллект, а интеллект представляет знак [9, с. 21–23; 7, с. 100–102; 8, с. 38–46].

Идеи Н. Туси гармонируют с идеями современной лингвистики по данному вопросу. Н. Туси отмечал, что знак и интеллект – божественные качества. В разуме и знаке есть божественность. Разум и знак – это создание морального и эстетического богатства вселенной и установление царства нравственности и красоты на земле.

Это такая сфера, где эволюция завершает свое развитие. Согласно Аль-Фараби, мир – это знак первой сферы, его первого источника, Аллаха (Бога). Первая сфера – нематериальна, абсолютное совершенство, действующее художественное пространство. Аль-Фараби отмечает, что суть необходимых знаков проистекает из его существования. Эти признаки отличаются от возможных и по-

тенциальных признаков. Потому что по своей сути нет необходимости в существовании. У важнейших знаков нет причин для существования. Ученый приводит в пример знаки в начале сур Священного Корана [4, с. 5–7; 12, с. 8–12].

Наследие азербайджанского ученого А. Бахманьяра, особенно его труд «Басня», можно считать одним из важных достижений философской мысли для всех народов Ближнего Востока. В своей работе под названием «Басня» А. Бахманьяр говорит о теории знаков и подчеркивает важность логического мышления в развитии этой теории [10, с. 37–42]. Здесь ученый упоминает имена великих ученых древности, таких как Аристотель, Эмредон, Сократ и Платон, и цитирует их. Он отмечает, что знак – в воображении самое первое, для которого нет пола или другого отличительного признака. Знак, рассматриваемый с разных точек зрения, делится на важные и возможные части. А. Бахманьяр говорил о важных знаках как о первичных, указывающих на место обитание ангелов.

В философии А. Бахманьяра знак представлен как иерархическая система. В «Этапах бытия» А. Бахманьяра рассматриваются преимущественно абстрактные знаки. Абстрактные знаки относятся к четырем различным уровням реальности: 1) беспричинные знаки, 2) активные знаки, 3) небесные знаки, 4) людские знаки [10, с. 104–109].

Другой тюрколог Востока, А. Сухраварди, затронул теорию знаков в своей книге «Вклад знаний». В своем творчестве философ обращается к человеческому телу и душе. По мнению ученого, психологические события, происходящие в теле, напрямую относятся к душе. Люди отличаются от других живых существ именно своим интеллектом. Ум – это язык души, интерпретатор прозрения. Ум – это качество, благодаря которому формируется понимание наук.

А. Сухраварди о знаках души пишет так: «Душа материальна и нематериальна». А. Сухраварди называет материальный дух животным духом. Животный дух – носитель чувств и движений, тело. Он живет внутри артерий. Этот дух присутствует во всех животных и людях. Божественный дух нематериален, это знак божественного мира. В человеке же возвышенный человеческий дух сливается с животным духом, и в результате

человек обретает речь и вдохновение. В суфийской литературе добрые дела считаются признаком человеческого духа, а плохие – признаком животного духа [10, с. 91–95].

Еще в XI веке азербайджанский поэт и ученый Х. Тебризи писал о знаке, а также говорил об образе предмета и его изображении в мозгу человека. Получается, что эти ученые заложили основы современной психолингвистики.

Еще в XI веке азербайджанский поэт и ученый Х. Тебризи писал о знаке, а также говорил об образе предмета и его изображении в мозгу человека. Автор Х. Музаффар отмечал, что теория знаков напрямую связана с грамматическими категориями. Ф. Вейсалли пишет со ссылкой на Н. Гусейнли: «Ибн-Сина в своей теории знаков на несколько столетий опередил Г. Пирса и Дж. Морриса, а также после него его ученик Н. Туси развил идеи Ибн Сины о знаках и сумел выявить отношения между знаком и референцией, знаком и инферной».

Фактически, хотя научные взгляды этого ученого, в том числе его очень ценные идеи о знаке, впоследствии стали предметом широкого обсуждения в западной философии, его имя нигде не упоминается [11, с. 61–62].

ВЫВОДЫ

Основы современной психолингвистики были заложены в художественно-философских трудах Аль-Фараби, А. Бахманьяра, Х. Табризи и др. мыслителями X–XI веков.

Изучение знаковой функции языка в современной лингвистике связано, в основном, с именем европейского ученого Фердинанда де Соссюра. Но это утверждение не совсем корректно. За столетия до него такие востоковеды как Аль-Фараби, Х. Тебризи, Н. Туси, С. Сухраварди, Э. Миянечи, А. Бахманьяра, Х. Музаффар выдвигали очень глубокие и содержательные мысли в этом направлении.

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Этно-топонимика Америки

Ethno-toponymy of America

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Аннотация. В ономастике географические объекты до сих пор классифицировались в различных вариантах в зависимости от причин для наименования. Эти классификации проводились в соответствии со специализацией и целями исследователей. Формирование географических названий обозначает только наименование оронимических, гидронимических, ойкономических, зоонимических, фитонимических объектов, поскольку именование этих типов географических объектов в основном фокусируется на характерном признаке. Однако этнотопонимы, патротопонимы и антропопонимы не имеют характерного признака, а отражают принадлежность предметов к народу, племени, поколению и личности. Топонимическая номинация относится, в основном, к оронимам и в некоторой степени к гидронимическим топонимам. В оронимии Америки все географические названия, образованные в результате какого-либо исторического события, основаны на точной истории и факте проживания коренных американских индейцев, что является одной из их основных характеристик.

Ключевые слова: ономастика; топоним; Америка; индейцы; номинация; метафора.

Abstract. In onomastics, geographical objects have been classified in different variants, depending on the reasons for the name. These classifications were conducted according to the specialisation and goals of the researchers. The formation of geographical names means only the name of oronymic, hydronymic, economic, zoonymic, and phytonymic objects. The naming of these types of geographical objects is mainly focused on the characteristic feature. However, ethnotoponyms, patrotoponyms and anthropoponyms do not have a characteristic feature but reflect the belonging of objects to the people, tribe, generation and personality. Toponymic nomination refers mainly to oronyms and, to some extent, to hydronymic toponyms. In American oronymy, all geographical names formed as a result of a historical event are based on the detailed history and fact of residence of Native American Indians, which is one of their main characteristics.

Keywords: onomastics; toponym; America; Indians; nomination; metaphor.

ВВЕДЕНИЕ

Комплексная научная дисциплина о географических названиях, сочетающей методы и задачи географических, исторических, филологических исследований в лингвистике именуется как «топонимика». В топонимической системе отражены культуры, языки, время, социально-исторические условия развития общества. Данная система формируется на протяжении длительного времени. По словам Хайдеггера, топонимика «означает не картину, изображающую мир, а мир, понят-

ный как картина представляющим и устанавливающим ее человеком» [2, с. 93]. Топонимика является частью ономастики.

Топонимы являются одним из основных языковых и культурно-духовных богатств всех народов, у которых есть своя история топонимов, которая создавалась на протяжении многих веков. Топонимы отражают уникальные наблюдения, переживания, мировоззрения и различные верования людей с древнейших времен до наших дней. Топонимия – это изучение «топонимов», которые

являются собственными названиями мест, также известными как «географические названия» или «географические названия», их происхождения и значения, использования и типологии. В более конкретном смысле термин «топонимия» относится к перечню топонимов, в то время как дисциплина, изучающая такие имена, называется «топонимикой» или «топономастикой». «Топонимия – это ветвь ономастики, которая изучает имена собственные. все виды. Топоним – это общий термин для собственного имени любого географического объекта, и полный объем этого термина также включает в себя собственные имена всех космографических объектов. Согласно Оксфордскому словарю английского языка, слово «топонимия» впервые появилось на английском языке в 1876 году» [4, с. 1025].

В топонимике до сих пор географические объекты классифицируются в различных вариантах в зависимости от причин их наименования. Конечно, эти классификации проводятся в соответствии с узкими специализациями и целями самих исследователей. Например, по данному поводу мы можем вспомнить Дж. Р. Стюарта, который был одним из ведущих ученых в области топонимии. В 1954 году он опубликовал в журнале *Names* статью под названием «Классификация географических названий». Его типология, основанная на «процессе наименования», выделяет десять основных типов топонимов: 1) описательные имена и имена точек компаса (имена, которые описывают и характеризуют качество объекта или его местоположение; 2) ассоциативные имена (имена, вызывающие ассоциации с разными предметами); 3) имена инцидентов (имена из события, связанного с человеком, Р. Стюарт также относится к этой группе стихийных бедствий, календарные имена, имена животных, имена человеческих действий, имена из чувств, имена из высказываний); 4) притяжательные имена (имена произошли от некоторой идеи собственности); 5) памятные имена (имена, данные в память или в честь выдающихся людей и имена абстрактных добродетелей); 6) похвальные названия (названия, даваемые некоторыми привлекательными особенностями географического объекта); 7) народные этимологии (имена с ложной этимологией); 8) выдуманные имена (имена, которые были сознательно составлены из фрагментов

других слов или имен из инициалов, путем перестановки букв или слогов или другими способами); 9) ошибочные названия (имена возникли из-за ошибки, допущенной при передаче с одного языка на другой, либо из-за неточного слушания сказанного, либо из-за неправильной передачи звуков в письменной форме); 10) сменные имена (имена, которые были перемещены из одного места в другое) [9, с. 26]. Данную классификацию упоминает в своих исследованиях Н. Исмадова [4, с. 1026].

Номинация географических названий может рассматриваться как наименование только оронимических, гидронимических, ойконимических, зоонимических, фитонимических объектов, поскольку наименование этих типов географических объектов является в основном характерной чертой. Однако этнонимы, патротопонимы и антропонимы не имеют характерного признака, а отражают принадлежность предметов к народу, племени, поколению, племени и личности. Понятно, что топонимическая номинация относится в основном к оронимам и в некоторой степени к гидронимическим топонимам. Это связано с тем, что термины, обозначающие названия цветов, чисел, видов растений и животных, играют ключевую роль в наименовании орографических объектов.

РЕЗУЛЬТАТЫ ИССЛЕДОВАНИЯ

Топонимические исследования американских орографических географических названий показывают, что оронимы по-разному проявлялись в наречиях. На основании этого были созданы следующие виды номинаций географических названий: 1) Сецифические оронимы. 2) Метафорические оронимы. 3) Фитонимические оронимы. 4) Зоонимические оронимы [5]. Но мы в своем исследовании хотим предложить немного иную классификацию географических названий на основе американских топонимов.

Географические названия, присвоенные объекту по особенностям рельефа, полностью отличаются от других топонимов своими названиями. В то время как другие географические названия наименованы потому, что они отражают названия близлежащих объектов (деревня, город, гора, холм, река, озеро, канал и т.д.). Конкретные географические

названия, в отличие от них, не берут свое название от какого-либо объекта. Как уже упоминалось, для них характерны специфические черты (формы рельефа, расположение, размер, событие и т. д.) и метафорические особенности (сходство с тем или иным животным, птицей, предметом, частями тела человека и животного, а также внешний вид рельефа) географического объекта. Однако метафорические географические названия изучаются в американской топонимии не как конкретные географические названия, а как отдельная группа [1, с. 15].

«Первые географические названия, относящиеся к раннему периоду (1000–1700 гг.), были даны коренными жителями Ньюфаундленда и Лабрадора: индейцами и инуитами (эскимосами). Многие из них не только не подверглись лингвистической ассимиляции языками колонизаторов, но и избежали различных вариантов перевода. Несмотря на почти полное истребление коренных жителей (племя беотук), аборигенные названия относительно широко встречаются на географической карте этой провинции» [3, с. 49].

Географические названия, звучащие на языке инуитов можно встретить на Лабрадоре. «Как правило, это топонимы, содержащие в своем составе существительное: «бухта», «мыс», «гора», «озеро», «гавань» (*bay, cape, mountain, lake, harbour*) и прилагательное, выполняющее либо описательную, ограничительную, либо характеризующую функцию. Например, *Kaumajet Mountains* означает *shining top*, или *shining mountains* – «сверкающая вершина», «сверкающие горы»; *Kiglaplait Mountains* на языке инуитов *dog-tooth mountains* – «горы, напоминающие зубы собаки» [4, с. 50].

Индейцы населяли и Ньюфаундленд. Географические названия индейского происхождения характеризуют местность проживания, объекты, которые представляли особый интерес, опасность или были жизненно важными. Помимо номинативной, индейские названия несут и символическую функцию. «Доля названий, означающих природные свойства объекта, преобладает на ранних ступенях развития и убывает с усилением власти человеческого общества над природой» [6]. *Annieospsquotch Mountains* на языке микмак *rocky mountains* или *terrible rocks* – «страшные горы».

Географические названия такого типа представляет собой сочетание слов обозначающие цвета и оронимических терминов. Географические названия этого типа включают такие слова, как белый, фиолетовый, серый, золотой, красный, черный и т.д. Например, *Green Mountains* (Зеленые горы), *White Mountains* (Белые горы / Снежные горы) и т.д.

Слово «красный», встречающееся в топонимии, помимо использования в переносном смысле (в смысле красоты, яркости, ясности, цвета крови, красного цвета и т.д.), также означает цвет объекта.

Например, топоним на юге Америки Оклахома (штат на юге США) – это географический термин на языке местного племени чоктау (окла – человек, хумма – красный), который означает «красная земля красных людей». Как видно, это географическое название является метафорой, или же гидроним *Red river* (река на юге США) на английском языке означает «красную реку», которая взяла свое название по цвету воды.

В некоторых названиях оронимов Америки можно встретить такие слова, как *big, grand* (большой) и *small* (маленький). Например, *Big Hill* (Большая гора), *Little Diomedé Island*, *Grand Cane* (Большой каньон) и т.д.

По этимологическим особенностям особо интересны топонимы Америки индейских происхождений. Например, «Аляска» на языке алеутов означает «большую страну». Надо отметить, что «на территории штата Аляски проживали и проживают племена индейцев. Их языки относятся к группе атапаскских языков Северной Америки, входящих в семью на-дене (семья индейских языков Северной Америки, включающая в себя атабкские языки, эякский язык, тлинкитский язык» [8, с. 83].

В своих исследованиях М. Романюк отмечает, что «в качестве признаков, характеризующих топонимику как историческую науку, называются мотивированность и устойчивость топонимов. Топонимика каждой страны характеризуется не только собственными названиями, придуманными народом, который проживает на территории какой-либо страны, но также и историческими событиями, происходившими на протяжении всего существования страны или населенного пункта» [8, с. 86].

Аризона – штат в США площадью 295 000 км² с административным центром в Фениксе. Этот объект расположен в горной местности с сухим климатом. На языке местных индейцев слово «Аризона» означает «маленький источник воды».

Гран Чако – это название географического региона. «Гран» на испанском языке означает «большой», а «чакон» на языке местных индейцев гуарани означает «охотничье озеро», «козел». А «на языке кечуа чако – слабозаселенный, тропический регион с полупустынным ландшафтом» [7, с. 109].

Большое число топонимов связано с флорой, *Etobicoke* – «место, где растет черная ольха»; не менее распространены топонимы, связанные с фауной *Ahmic Harbour* – «бобер», *Kashabowie* – «игла дикобраза».

Некоторые автохтонные названия зафиксированы в переводе на английский язык для удобства произношения» [3, с. 54]. Например, гора на севере юго-востока США образно называется Скайленд, потому что она выше близлежащих гор. Образно оно представляется как, ближе к небесам.

Алеутские горы расположены в северной части Тихого океана, к юго-западу от Аляски, принадлежат США. Они названы в честь местных унанганов. Унанганцы называли горы на севере этой области «Алеутом» из-за их высоты. Позже унанганцы тоже стали называть свой народ алеутами. Значение этого слова на языке местного племени – «высокий», «высший».

В американской топонимии термин *high* (высокий) часто употребляется перед рельефными формами. Использование этого термина в основном носит сравнительный характер. Например, *High Rock* (Высокая скала) – *Low Rock* (Низкая скала); *High Point* (Высокая вершина) – *Low Point* (Низкая вершина) и т.д.

Некоторые орографические объекты названы по их количеству и иным характеристикам. В составе таких географических названий использовались следующие термины: *alone* – один, одинокий. Например: *Alone Cliff* – Одинокая скала; «*twin*» – близнецы, напри-

мер: *Twins* – Близнецы (Это горный хребет на севере США); *three* – три, например: *Three Brothers* в Калифорнии, по-видимому, назван в честь трех вершин.

Термин «*two*», использованный в географическом названии *Two Ocean Glacier*, указывает на то, что отток моря относится как Тихий, так и Атлантический океаны.

Как видно, в американской топонимии числовые слова или термины используются перед более мелкими рельефными формами. Подобные географические названия здесь встречаются очень редко среди оронимов и гидронимов.

В американской топонимике гидронимы тоже отличаются своеобразием. В названиях гидронимических объектов здесь можно наблюдать разные слова со значениями вкуса. Например, *Salt water Town*, *Salt Canals* и т.д.

В топонимии США некоторые географические названия даны по водному режиму в районе, где он расположен, то есть по отсутствию воды (пересыханию) в летние месяцы года. По данной причине в составе некоторых гидронимов можно встретить специфические слова. Например, название реки *Minnesota* в языке местного народа означает «высохшая река».

ВЫВОДЫ

В рамках данного исследования рассмотрена часть топонимической лексики местных народов Америки.

В ходе анализов изложенных материалов можно сделать вывод о том, что языковые особенности индейских племен все еще сохранил свой этимологический окрас в составе топонимических названиях Америки.

Топонимические названия, созданные европейцами и другими народами, которые вступили в эти земли намного позже, отличаются своей примитивностью и простотой.

Этно-топонимия Америки больше всего несет в себе метафорическое значение.

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Внутрішньокорпоративні медіаресурси як елемент сучасного освітнього процесу

Intra-Corporate Media Resources as an Element of the Modern Educational Process

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Анотація. У статті досліджується роль і місце внутрішньокорпоративних медіаресурсів закладів вищої освіти в сучасному освітньому процесі. Доводиться, що вони є особливим типом корпоративних засобів масової інформації, виявляються їх особливості, проблеми і можливості в контексті забезпечення освітнього процесу закладів вищої освіти, розглядаються основні тенденції розвитку вузівських медіа. В ході наукового пошуку зроблено висновок, що внутрішньокорпоративні медіаресурси закладів освіти виконують, переважно, ті ж завдання, що й інші корпоративні мас-медіа: формують корпоративну культуру; запроваджують певні цінності; створюють атмосферу згуртованості завдяки об'єднанню різних елементів навчального процесу (від адміністративної складової до студентського позанавчального життя); поширюють актуальну й затребувану інформацію; мобілізують студентів з метою налаштування на сумлінне навчання, а колектив закладу – на роботу; налагоджують вертикальні і горизонтальні комунікації між закладами освіти та конкретною цільовою аудиторією на основі реалізації конструктивних діалогових відносин та ін.

Ключові слова: заклад освіти; засоби масової інформації; внутрішньокорпоративні медіаресурси; університетські ЗМІ; корпоративні ЗМІ; студентське телебачення; WEB-сайт.

Abstract. The article studies the role and place of intra-corporate media resources of higher education institutions in the modern educational process. It has been proved that they are a particular type of corporate media. Their features, problems and opportunities in ensuring the educational process of higher education institutions have been identified. Furthermore, the main trends in the development of university media have been considered. In the course of the scientific research, it has been concluded that the intra-corporate media resources of educational institutions perform mainly the same tasks as other corporate mass media: they form a corporate culture, introduce specific values, create an atmosphere of cohesion by combining different elements of the educational process (from the administrative component to student extracurricular life); they disseminate relevantly and demanded information, mobilise students to adjust to conscientious study, and the staff of the institution - to work, establish vertical and horizontal communications between educational institutions and a specific target audience based on the implementation of constructive dialogic relations, etc.

Keywords: educational institution; media; intracorporate media resources; university media; corporate media; student television; WEB site.

ВСТУП

Внутрішньокорпоративні медіаресурси стали об'єктом досліджень з 20-х років минулого століття. При цьому внутрішньокорпоративні медіаресурси закладів вищої освіти потрапили до поля зору вчених відносно недавно. За цей час було встановлено, що вони мають суттєвий вплив не тільки на підвищення рівня знань та обізнаності студентів та співробітників закладів освіти, а також на весь освітній процес у цілому.

Різні аспекти й елементи медіаресурсів, які ми відносимо до корпоративних, особливості їх впливу на освітній процес розглядали в свої роботах Ю. Арбузов [2], Т. Ахматова [1], А. Габрелян [5], С. Говердовська-Привезенцова [6], Т. Пуніна [17] та ін. Незважаючи на суттєвий науковий доробок, варто відзначити безсистемність даних досліджень. Так, навіть сама категорія «внутрішньокорпоративні медіаресурси» залишається дискусійною, оскільки, незважаючи на її активне застосування у різних сферах знань, вона по-різному інтерпретується вченими. Нині, в умовах повсюдного використання дистанційного навчання, важливість та значення внутрішньокорпоративних медіаресурсів у освітньому процесі стрімко збільшується, що і підкреслює актуальність проведеного дослідження.

Мета статті полягає в оглядовому аналізі внутрішньокорпоративних медіаресурсів, визначенні їх місця у сучасному освітньому процесі.

РЕЗУЛЬТАТИ ДОСЛІДЖЕННЯ

Розвиток інформаційних технологій та обмеженість «класичного» освітнього процесу спонукають заклади вищої освіти до пошуку альтернативних і більш ефективних точок доступу до споживачів їх послуг. В основному йдеться про збільшення охоплення закладами вищої освіти своєї аудиторії, задоволення її конкретних інформаційних потреб. У свою чергу, створення закладами освіти власних внутрішніх медіаресурсів з унікальним контентом не обмежується зазначеними нами внутрішніми чинниками та побажаннями, існують також незалежні зовнішні чинники, які у різні періоди часу торкаються освітньої сфери та трансформують освітній процес,

іноді досить кардинально. У XXI ст. таким зовнішнім чинником виступила пандемія коронавірусної інфекції COVID-19.

Тривалі карантинні обмеження викликані пандемією змусили багатьох по-новому поглянути на перспективи використання і подальшого розвитку внутрішньокорпоративних медіаресурсів освітнього середовища. Сьогодні вже не викликає сумнівів той факт, що внутрішньокорпоративні медіаресурси можна уявити у вигляді системи, серед основних цілей якої є формування інтелектуального потенціалу нашої країни.

До пандемії COVID-19 істотний поштовх у бік розвитку внутрішньокорпоративних медіаресурсів освітні установи отримали після прийняття Положення про дистанційне навчання, затвердженого [15]. Після цього почалося активне перетворення освітнього процесу в системі вищої освіти з урахуванням законодавчих змін, підкріплених нормами [16] та запитів прогресивного суспільства. Завдяки таким змінам у освітньому процесі, кожен студент отримав можливість користуватися освітніми матеріалами поза стінами закладу вищої освіти, прослуховувати курси в дистанційному режимі, стежити за «життям» закладу через його WEB-сайт, періодику, університетські ЗМІ тощо. Такий фактор сприяв тому, що роль внутрішньокорпоративних медіаресурсів у сучасному освітньому процесі почали ототожнювати з його організацією на основі медійного внутрішньокорпоративного контенту.

Варто відзначити, що внутрішньокорпоративні медіаресурси окремо взятого закладу вищої освіти є інформаційно-освітнім середовищем, яке включає в себе всі інформаційні медіаресурси даного закладу. Така різноманітність інформаційних медіаресурсів, що входять до складу внутрішньокорпоративних медіаресурсів, розширює інформаційний медіапростір освітнього середовища, включаючи до нього ряд додаткових джерел інформації, що сприяють освітньому процесу.

Принципові особливості освітнього середовища та прийомів комунікації, які виділяються в міру її розвитку, дають можливість віднести внутрішньокорпоративні медіаресурси до окремого типу засобів масової інформації з виділенням наступних характерних особливостей: комунікативна стратегія закладу вищої освіти з виділенням корпоративних інте-

ресів і завдань домінує над змістом медіаресурсів; переважна частина цільової аудиторії безпосередньо відноситься до функціонування закладу; внутрішньокорпоративний контент синергує з іншими комунікаційними інструментами, які використовуються в закладі; внутрішньокорпоративні медіаресурси ототожнюються з закладом.

До складу корпоративних медіаресурсів в освітній сфері відносяться періодичні друковані видання (преса), радіо- і телепрограми, WEB-сайти, WEB-портали, Telegram- і YouTube канали, у тому числі й інші форми періодичного поширення інформації, які служать інтересам освітнього процесу та використовуються установами, напряду залученими до його здійснення. Внутрішньокорпоративними вони стають в рамках окремих закладів вищої освіти. Внутрішньокорпоративні медіаресурси закладів вищої освіти, як правило, створюються самим закладом, зацікавленим у їх випуску, при цьому сторонні організації, що спеціалізуються на розробці, підтримці медіаресурсів, залучаються вкрай рідко, наприклад, через брак фінансування.

Друковані видання (преса) є однією з найбільш розвинених складових внутрішньокорпоративних медіаресурсів. Їх можна поділити на два блоки. Перший блок включає в себе наукову періодику. Зазвичай, це один (рідше – два і більше) рецензований науковий журнал відкритого доступу, створений для повного й оперативного задоволення інформаційних потреб цільової аудиторії в знаннях, отриманих у процесі науково-дослідної, дослідно-конструкторської, проектно-технологічної та виробничої діяльності вчених і фахівців. У такій пресі публікуються оригінальні тези і наукові статті, що висвітлюють проблеми соціальних, технічних, гуманітарних та природничих наук (виходячи з напряду підготовки фахівців закладом вищої освіти). Цільовою аудиторією першого блоку є вчені, викладачі, представники бізнесу та експертного співтовариства, аспіранти, студенти та всі, хто цікавиться питаннями сучасної науки.

До другого блоку можна віднести газети, що випускаються закладом освіти. Дослідники виділяють два напрями діяльності такої преси – корпоративний або внутрішній PR, спрямований на професорсько-викладацький склад, співробітників та студентів; і зовніш-

ній PR, спрямований на потенційних абітурієнтів, міську й обласну адміністрації, суспільство в цілому [14, с. 128]. На нашу думку, з огляду на засновників таких газет (переважно ними виступають студентські профспілки), основною їхньою метою є безпосереднє інформування читачів про життя і діяльність закладу вищої освіти, в якому вони видаються. Говорити про піар закладу у такій пресі можна досить умовно, оскільки вона надає читачеві більш повну інформацію про ту чи іншу проблему, пов'язану з закладом та освітнім процесом, який відбувається в його «стінах». Значна кількість газет містить інформацію, яку неможливо отримати з інших джерел. Вони розкривають ті моменти і проблеми, з якими стикаються студенти в ході освітнього процесу, а також пропонують шляхи їх подолання.

Якщо засновником преси виступає ректорат, то цілі й завдання будуть відрізнятися від зазначених нами раніше. Акцент буде зміщуватися в бік висвітлення офіційного життя закладу вищої освіти: хроніка різноманітних заходів, підсумки роботи, накази, премії, конференції, навчальні плани, інтерв'ю з викладачами та представниками адміністративного й управлінського апарату. На перше місце виступає формування позитивного іміджу закладу. У зв'язку зі зміною акцентів цілей видання, змінюється й читацька аудиторія. Такого плану медіа є більш цікавими для співробітників вузів та зовнішньої аудиторії, серед них потенційні абітурієнти, їхні батьки тощо. Проте треба враховувати, що викладачі, співробітники також цікавляться позанавчальною хронікою життя власного закладу, а студентська молодь доволі часто цікавиться офіційною інформацією. З огляду на це редакціям необхідно постійно балансувати між офіційною частиною та інформацією, що цікавитиме й студентів, й викладачів [14, с. 131]. Оскільки втрата балансу, наприклад, внаслідок надлишку службової інформації та відсутності матеріалів про студентське життя, може значно скоротити такий сегмент читацької аудиторії, як молодь, що навчається у цьому закладі вищої освіти. Також при цьому не буде досягнута й мета цього медіаресурсу – позитивний PR, оскільки й зовнішні споживачі не матимуть цілісної картини щодо закладу вищої освіти через однобічність висвітлення його діяльності.

На відміну від друкованих видань, які випускаються закладами вищої освіти, відеоконтент, що стосується освітнього процесу, перебуває на початковому етапі. Як показує аналіз WEB-ресурсів закладів вищої освіти, в дев'яти випадках із десяти, заклади вищої освіти переважно обмежуються записами відеолекцій і вебінарів, що стосуються дистанційного навчання. Основний відеоконтент спрямований на внутрішнього користувача (слухачів навчальних курсів вузу), запити ж зовнішньої аудиторії (батьківська громадськість, організації, які безпосередньо чи опосередковано впливають на організацію освітнього процесу) здебільшого залишаються поза увагою. Лише в окремі часові періоди (наприклад, перед вступними кампаніями) створюється відеоконтент з метою підвищення кількості абітурієнтів у закладі вищої освіти.

Загальним недоліком цих відеоматеріалів можна назвати невисокий рівень майстерності організаторів зйомок, відсутність у них професіоналізму або й сучасної техніки, необхідної для створення якісного відеоконтенту. Слід зазначити, що відеоматеріал переважно жанрово і тематично одноманітний (наприклад, суто лекційний матеріал або відеоролики з офіційною інформацією для вступників). Ця ситуація обумовлена тим, що відеоконтент обмежується рамками самого вузу (з огляду на його діяльність), браком у творців відеороликів навичок створення відео, просування, рекламної та PR-діяльності, щоби враховувати інтереси цільової аудиторії. Також низька якість відеоконтенту свідчить про затратність його створення.

Водночас, потрібно відзначити, що останнім часом активно розвиваються такі внутрішньокорпоративні медіа, як YouTube-канали, TV та радіоканали закладу вищої освіти. Оскільки сучасні телекомунікації у світі й у нашій країні активно зростають, то й відповідний контингент, звісно, очікує на якісні медіа й у освітній сфері. Зацікавленість аудиторії по відношенню до відеоматеріалів закладу на сучасних каналах відеозв'язку та бажання споживати розширений контент роблять затребуваними навчальні фільми, відеорозповіді про науку й наукові досягнення конкретного закладу тощо.

Ми погоджуємося з тим, що здатність закладів вищої освіти до створення відеоматеріалу з творчим змістом не можна охарактеризува-

ти як домінуючу – лише невеличкий відсоток усього контенту, що створюється корпоративними телеканалами, радіостанціями, становлять програми, які мають цікавий, індивідуальний та професійний характер. Саме ці програми провакують інтерес аудиторії до освітнього закладу, залучають до інтерактивного спілкування. Можна відзначити, що в цілому такі програми створюють ефект позитивного дискурсу, репрезентують авторитетне, академічне наукове слово, пропонують певну модель світобачення, яка вибудовується поза ідеологією сучасного суспільства, що зазнає впливу різних політичних та економічних настроїв, і в цьому плані можуть скласти конкуренцію сучасному телебаченню як явищу масової культури [6, с. 99-100]. Загалом, зазначена складова внутрішньокорпоративних медіаресурсів ще тільки напрацьовує досвід створення інформаційного відеоконтенту та ефективні способи його презентації.

Студентське телебачення, будучи невід'ємною частиною внутрішньокорпоративних медіаресурсів, має своєю основною метою підвищення рівня інформованості студентів, співробітників закладу вищої освіти, а також його абітурієнтів про діяльність закладу. Однак, не можна допускати, щоб студентський TV-канал виявився відео-дублером університетського сайту чи порталу, який висвітлює головні внутрішньоуніверситетські новини. До основних завдань студентського телебачення можна віднести: розробку інформаційної концепції TV на основі оперативності й актуальності, її доступності для студентів, викладачів та співробітників закладу вищої освіти; регулярне й об'єктивне висвітлення діяльності закладу, а також найбільш значущих подій у його життєдіяльності; розвиток та стимуляція студентської активності у сфері реалізації цілей і завдань закладу вищої освіти. Найчастіше у програмах, підготовлених студентами, позиціонується ідея якості освіти рідного закладу: затребуваність спеціальностей на ринку праці, можливостей наукової реалізації випускників, співпраця із закордонними колегами, отримання додаткової освіти та конкретних професійних навичок під час навчання, висвітлюються проблеми зі студентського життя як аудиторного, так й поза стінами кампусу тощо.

Якість відеоматеріалів безпосередньо залежить від професійної підготовки зі створення медіаконтенту його авторів. І тут потрібно

зазначити, що творцями й авторами відеоконтенту виступають переважно дві групи осіб, які зазвичай не є фахівцями цієї у сфері. До першої можна віднести викладачів, до обов'язків яких входить підготовка матеріалу, його донесення до цільової аудиторії з одночасною фіксацією. Підготовлений матеріал або передається технічному співробітнику закладу вищої освіти, який розміщує контент на сайті або порталі закладу, або ж самі викладачі займаються цим питанням. До другої групи ми віднесли студентів, задіяних у створенні студентських ЗМІ. Їх діяльність у такому випадку контролюється закладом. Як і на викладачів, так і на студентів покладаються всі етапи створення відеоконтенту. Водночас, у перспективі, необхідно розглядати необхідність залучення до створення внутрішньокорпоративного відеоматеріалу фахівців із телевізійної сфери (операторів, звукорежисерів, монтажерів, журналістів, фахівців у сфері SMM, рекламної та PR-діяльності тощо). Це підвищить рівень та якість контенту, сприятиме формуванню позитивного іміджу закладу вищої освіти.

Варто підкреслити, що головною складовою внутрішньокорпоративних медіаресурсів на сьогоднішній день є WEB-сайти закладів вищої освіти. Сайти закладів вищої освіти відносяться до групи освітніх сайтів. Під освітнім WEB-сайтом науковці розуміють сукупність WEB-сторінок з повторюваним дизайном, що несуть у собі цілеспрямований процес навчання й виховання в інтересах особистості, суспільства, держави, об'єднаних за змістом, які навігаційно і фізично знаходяться на одному сервері, і використання яких може супроводжуватися атестацією учнів [17, с. 5]. Тенденції розвитку інформаційних технологій і тривала пандемія COVID-19 роблять представленні ресурси надактуальними, що дає можливість говорити про подальше удосконалення, опрацювання внутрішньої структури з урахуванням сучасних запитів користувачів.

Закономірним розвитком WEB-сайту закладу вищої освіти як сучасного елемента освітнього процесу є його трансформація в освітній портал, який: по-перше, служить ефективним рішенням для комплексного охоплення усіх сфер діяльності закладу; по-друге, є сполучною ланкою між користувачами порталу і закладом за посередництва мережі; по-третє,

забезпечує повноцінну взаємодію з іншими освітніми ресурсами. Незважаючи на свою схожість із сайтом, портал є наступним шаблоном розвитку Інтернет ресурсів закладу.

Основні відмінності порталного рішення від звичайного WEB-сайту: персоніфікований і зручний інтерфейс; можливість ідентифікації користувачів та визначення для них політики доступу до тих чи інших інформаційних ресурсів; висока захищеність інформаційних ресурсів, розміщених на порталі; можливість інтеграції різномірних додатків та надання єдиної точки входу до цих програм і т. д. [1, с. 432]. За своєю будовою та функціями портал набагато ширший і складніший, ніж звичайний WEB-сайт. Портальне рішення дозволяє об'єднати майже усі внутрішньокорпоративні медіаресурси закладу вищої освіти, охопити максимальну кількість галузей діяльності закладу, надавши своїм відвідувачам та користувачам ряд додаткових сервісів, які істотно полегшують їхню роботу з внутрішньокорпоративними медіаресурсами.

Не можна не погодитися з Ю.В. Арбузовим стосовно того, що основна характерна особливість порталу полягає у послідовному розвитку інформаційно-довідкових функцій порталу традиційного типу до функцій централізованого середовища створення та підтримки освітніх ресурсів, а також координаційного середовища супроводу освітнього процесу. З цією метою на порталі ефективно розвинені аналітична й адміністративна підсистема, підсистема управління інформаційними ресурсами, а також призначений для користувача інтерфейс пошуку, замовлення й використання освітніх ресурсів, у результаті чого портал може виконувати цілий ряд важливих завдань як довідково-інформаційне середовище, як централізоване середовище розробки та підтримки освітніх ресурсів, а також як координаційне середовище супроводу освітнього процесу [2, с. 228]. Таким чином, порталне рішення, як консолідуєчий елемент внутрішньокорпоративних медіаресурсів закладу вищої освіти, сприяє інформаційній підтримці всього освітнього процесу. Важливим є той факт, що портали володіють функціоналом з об'єднання всіх внутрішньокорпоративних медіаресурсів окремих закладів вищої освіти в єдину загальноукраїнську систему.

Вважаємо за доцільне створення єдиного центру на допомогу як студентам, так і викладачам, що буде забезпечувати доступ до різних внутрішніх медіаресурсів закладів вищої освіти усіх рівнів. Цей портал виступатиме загальною надбудовою, що забезпечуватиме зручність у роботі користувача, уможливить доступ до методичних матеріалів, підручників, посібників, інших навчальних матеріалів з різних закладів вищої освіти.

Незважаючи на подальший розвиток внутрішньокорпоративних медіаресурсів закладів вищої освіти, залишається невирішеним ряд питань, обумовлених як суб'єктивними, так і об'єктивними факторами, що стоять на заваді їх розвитку. Деякі з них вже були виділені нами у процесі розгляду окремих внутрішньокорпоративних медіаресурсів. До решти можна віднести наступні:

1) брак досвіду і комплексних знань, пов'язаних зі створенням професійного контенту, у представників закладів вищої освіти, які беруть участь в організації процесу функціонування внутрішньокорпоративних медіаресурсів. Також не організована система наступництва. Наприклад, студенти (а це переважно 3-5 курси), які працюють з медіаресурсами, набувши досвід, не встигають поділитися ним з іншими, оскільки завершують навчання;

2) відсутність ініціативи. Викладацький склад сучасних закладів вищої освіти сильно перевантажений динамічністю освітнього процесу у зв'язку з необхідністю надання послуг з дистанційного навчання. Крім того, викладачі зобов'язані активно брати участь в науковому, організаційно-виховному житті закладу: виступати на конференціях, наукових семінарах, публікуватися в періодиці, розроблювати та друкувати навчально-методичну літературу, постійно складати звітності, вести на громадських засадах гуртки, лабораторії, виступати кураторами груп, проводити екскурсії, створювати та супроводжувати сайти й інші мережеві ресурси, проводити олімпіади тощо. У зв'язку з цим, часу на розроблення цікавого, живого, сучасного контенту інколи просто не вистачає;

3) за винятком наукової періодики, яка видається закладом вищої освіти, відносно інших внутрішньокорпоративних медіаресурсів відсутні критерії оцінки їх ефективності, що

пов'язано, в основному, зі складнощами визначення об'єктивних параметрів для проведення такої оцінки. Так, наукові журнали проходять атестацію, яка засвідчує науковість видання і дотримання правил рецензування, їм присвоюється відповідна категорія. Вважається, що чим вища категорія, тим вища наукова цінність та авторитетність журналу;

4) відсутність комплексного редакторського підходу до випуску внутрішньокорпоративних медіаресурсів. Працівники цих медіа ще на початковому етапі розуміння того, що інтереси закладу вищої освіти необхідно інтегрувати в актуальний та унікальний контент, який би відповідав сучасній стилістиці медіа та візуальній складовій. Тобто вміння організувати всю справу таким чином, щоби привертати увагу до публікацій, відеоконтенту як самих учасників освітнього процесу – викладачів, студентів, так і керівництва закладу, і при цьому продовжувати виконувати свої безпосередні обов'язки із задоволенням. Для цього редактор повинен керуватися відповідними інструментами: мати право формувати редакційну політику та займатися стратегічним плануванням.

Останні десять років розвитку суспільства і технічний прогрес у сфері інформаційних технологій зумовлюють перегляд структури, організації внутрішньокорпоративних медіаресурсів освітніх закладів відповідно до оновлених цілей і завдань, які ставляться перед ними. Якщо раніше внутрішні медіаресурси лише висвітлювали події освітнього процесу, то наразі вони стають невід'ємним його елементом.

ВИСНОВКИ

Можна стверджувати, що внутрішньокорпоративні медіаресурси закладу вищої освіти виконують, переважно, ті ж завдання, що й інші корпоративні мас-медіа: формують корпоративну культуру; запроваджують певні цінності; створюють атмосферу згуртованості завдяки об'єднанню різних елементів освітнього процесу (від адміністративної складової до студентського позанавчального життя); поширюють актуальну й затребувану інформацію; мобілізують студентів з метою налаштування на сумлінне навчання, а колектив закладу вищої освіти – на роботу; налагоджують вертикальні і горизонтальні комунікації між закладами та конкретною цільовою

аудиторією на основі реалізації конструктивних діалогових відносин та ін. Такою цільовою аудиторією є, по-перше, студенти, по-друге – батьківська громадськість та організації, які опосередковано чи безпосередньо впливають на організацію освітнього процесу.

Розвитку внутрішньокорпоративних медіаресурсів на сьогоднішній день сприяє не лише загострення «боротьби за абітурієнта», яка посилює конкуренцію між закладами вищої освіти, а й надання цими закладами послуг із дистанційного навчання. Завдяки цьому сучасні медіаресурси закладу вищої освіти поступово перетворюються на потужну стру-

ктуру, яка виробляє інформаційний контент та надає ЗМІ інформаційні приводи для публікацій, що сприяють рейтинговій підтримці закладу, формуванню його позитивного іміджу.

Контент внутрішньокорпоративних медіаресурсів настільки багатогранний, що дані ресурси вже стали предметом міждисциплінарних досліджень, а їх потенціал залишає великий простір для подальшого наукового пізнання.

У подальших дослідженнях доцільним буде проведення аналізу окремих внутрішньокорпоративних медіаресурсів.

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Warpreneurship: War as a Business

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Abstract. Making profits out of war is an ancient phenomenon. There are enterprises constantly supplying material to prepare armies and consequently profit from war. Enterprises have become aware that war itself and the post-war period is undoubtedly lucrative. However, the war also never works for any individual or group, except a dominant elite few: the wealth who propagate and influence patriotic and despotic war-peddling all over the world, making trillions of dollars in profit out of devastations and deaths, at the same time exciting their nationalism, and inspiring the citizen's backing. The paper has examined Executive Outcomes (a commercial security firm) and the United States of America, Russia, Kenya and Uganda as countries that are examples of those engaging in Warpreneurship. But in the long run, the war in itself does not result in peace but immense profits and securing resources for the dominant elite few.

Keywords: war; entrepreneurship; warpreneurship; axis of virtuous.

INTRODUCTION

Since militaries are legitimate, people perceive warfare to be tolerable and do not feel that it is wicked or wrong. Whether their intention is for defence or offence, these enormous influential establishments endure especially to exterminate people. War and large military establishments are the most significant sources of violence in the world [40]. Its very nature is solitary of disaster and misery. People should all be horrified by the extent of their disaster but instead are too confused [40]. This might be because wars have been coated as going to bring peace and security. Examples of such include the majority of Saudi citizens' stance regarding their military involvement in Yemen, the Soviet citizen's attitude concerning their nation's involvement in Syria, and the USA allies' citizen's position regarding their country's participation in Afghanistan and Iraq.

War never breaks out wholly unexpectedly, nor can it be spread instantaneously. Weapons and military have to be accumulated to wage wars. Therefore, the weapons businesses must adopt the entrepreneurial skills of willing to bear the risk of a new war if there is a significant chance for revenue [28]. Making profits out of warfare is a very long-standing reality as there are always firms supplying hardware to prepare militaries and consequently profit from war [28]. Conse-

quently, this paper sets out to confirm that contemporary wars never work for any nation, except the weapons entrepreneurs. On the contrary, they will propagate and influence patriotic and racial war-soliciting the whole world, making big dollars in profits from annihilations and destructions while exciting their nationalism and inspiring citizens' backing.

RESULTS AND DISCUSSION

Old Wars

For warfare to erupt amongst sane players, notably, one of the actors associated should expect achievements from the skirmish outweighing the expenses incurred. In the absence of this qualification, there is a surety of enduring peace [26]. For instance, it is possible that two nations are individually positive and persuaded that they would achieve advancement from a conflict. In such instances, war can flare up as long as the contradiction of opinions is significant enough to pay off war's cost. For instance, if both states expect to triumph in a war with high enough probability, there would not be any agreement that avoids war [19].

Two examples of wars that are recognised to such blunders or miscalculations due to a lack of

data about comparative power have been discussed. In 1866, Austria supposed that it was mightier than Prussia, and Prussia believed it superior to Austria. Each was aware of the other's opinion, but they believed it was mistaken [38]. In this case, nationalism triumphed, and Prussia achieved domination over the newly ordered confederation of North Germany, a union of 21 smaller German political units and Prussia [39].

The 1st World War commenced on July 28 1914, and it was blamed on the divergences in policies, even though what ignited it was the murder of Austria's Archduke Franz Ferdinand [2]. The warfare commenced primarily due to four aspects: Patriotism, Alliances, Imperialism and Militarism. In 1914, England predicted that the conflict would be brief as it based its point of view primarily on economics. Then England was the dominant commercial authority. For that reason, if the commercial breakdown were going to hit sooner during the war, it would first affect Germany, leading to its submission [38]. In contradiction, the German rulers anticipated that the conflict would be shortened due to modernised armed forces innovations [38]. Germany was the recognised master in that field and so could expect victory. Expectations of the conclusion of the war had a solid and subjective line of thought. Nationalism and commitment to a treaty saw Britain enter the war [2]. These old wars were fought for geopolitical interests and ideologies, i.e., socialism or democracy.

World War two started on September 1 1939, due to the Treaty of Versailles that was having a crippling effect on the German economy. Germans were outraged and appalled towards their government's acceptance of such a treaty [13]. This appalling sentiment would in the future evolve to resentment feelings of other European states who drafted the treaty and of the administration that acknowledged it. This was a nationalistic war for the people and the nation.

Japan was severely affected by commercial desolation, and its citizens lacked confidence in the state [4]. Therefore, the citizens obligated the military for a solution to be found for their economic difficulties. Consequently, the Japanese military attacked China, a territory endowed with mineral deposits and other resources. This was to get natural resources for its factories to produce more goods that it needed. This, too, was a war for the people and the nation.

As for 1950-1953, Korean War began when the North Communist Korean military went over the 38th parallel and launched an attack on the South non-communist Korea. It has been documented that the Korean war had its origins from a composite of an outer dispute of the USA and USSR policies concerning the East-Asia, and the internal struggles in the Korean peninsula [28]. This context expounds how the Korean peninsula war, although at the outset was a kind of nationalism conflict, ultimately established into a conflict amongst the East and West alliances (cold war).

The Arab-Israeli War of October 6 1973, popularly referred to as the Yom Kippur War, had its conception sown in Israel's spectacular six-day triumph in the 1967 conflict. The Arab militaries endured a humbling loss, which the Egyptian President Nasser felt the most [10]. President Anwar Sadat, who succeeded President Nasser, had a clear diplomatic objective, land for peace, translated into a limited military mission.

The Soviet invasion of Afghanistan in 1979 had a clear political objective as Moscow could not envisage losing their political dominance in a neighbouring patron nation. It was an apprehension reinforced by the suspicions that Islamic fundamentalism would likely diffuse into their Muslim borders [12]. These are only a few 'real' wars that have been fought over nationalism ideologies. Mueller, in other words, refers to them as 'old war' [27]. These old wars were fought for geopolitical interests and ideologies.

The 20th Century Global System

But then, the international system has undergone a profound transformation in recent years. A transformation moulded by the conclusion of the Cold War in 1990, the globalisation phenomena and the development of fresh arrangements of collaboration and struggle amongst nations and non-nation players. Moreover, through the UN and Regional Organizations, states are in communication with one another [28]. The global arrangements during the 20th century were therefore formulated to brave the inter-state competitiveness and civil skirmishes. Nonetheless, skirmishes and wars have not been eradicated. But due to the achievements in decreasing inter-state conflicts by the current global systems, the leftover practices of skirmishes cannot suit accurately within "war" [44].

Most of what passes as wars in the current world are typically symbolised by the evil and innovation competition by 'thugs' and never in any way by the elemental collision of cultures [28]. Most of the agents give justification of ideological rhetoric or national ethnic to give credence to their actions since expressing their thrill for profit would be politically improper [28]. This is because, in the makeup of the 20th-century global system, the United Nations and its subsidiaries have so often been called upon to avert disputes from escalating into war.

This transformation has produced the growth of a new kind of war that is unique from previous ones. Different wars were established in the last years of the 20th century, particularly in Eastern Europe and Africa [21]. These different types of conflicts have been designated by a concept 'New Wars'. The new wars have provoked scholars to re-evaluate the characteristics of warfare from very new dimensions, of the players involved and their interests. The number of intrastate wars has diminished, whereas the frequency of interstate wars has heightened. Therefore, these conflicts are termed internal conflicts or civil wars [21]. From the new perspective, these civil wars or internal conflicts are exclusively engaged in by the non-state players, inspired mainly by financial gains, and that they are ruthless than the previous wars [25].

Some studies have identified ethnic, religious or tribal identities as the most significant variable in analysing wars [14]. Nevertheless, scholars state that the association between wars and ethnic, religious or tribal identities is not natural and social identities are merely vital as a collation scheme in civil wars [11]. At the same time, some of them have been baptised as the war on terror.

One of the best ways to improve and preserve power and funding for war is to keep the populace in constant fear by invoking ethnic, religious or tribal identities and, more recently, of 'terrorism and terrorists'. This enables those at the top of the dominant elite few to easily direct their subjects' thinking and, therefore, shape the world they control. As a result, the populace consents to a more significant part of taxes being spent on financing the endless military-industrial entrepreneurship.

Entrepreneurship

Business prospects continue being there, but contests are now as much about persistence as

development. And, as worldwide contests endure to intensify, opportunities of the market edge are becoming ever more challenging to preserve over some duration of time. Hence it is the capability to form fresh opportunities of market leverage quickly, often that will prove to be the only viable opportunity of real market leverage. Businesses have reacted to adjustments quickly, just as they have responded quickly to the activities of their competitors [6]. Therefore, businesses must adopt the entrepreneurial skills of willing to bear the risk of a new endeavour if there is a significant chance for revenue.

An entrepreneur's role, therefore, is to market their innovations. They develop new merchandise or services that the market demands, and sometimes the market does not demand but are currently not being delivered. Hence, entrepreneurship can be defined as "an analysis of how, by whom and with what consequences opportunities to produce future goods and services are discovered, evaluated and exploited" [33]. Also, an entrepreneur is innovative, first perceiving and creating new opportunities; second operating under unpredictability, as well as introducing merchandises for sell, deciding on the venues, and forming and using means/assets; and third managing their corporation and competing with the rest for a stake of the market [42]. By so doing, these same corporations get to be operational again: building, producing, and marketing again.

Therefore, enterprises have become aware that war itself and the post-war period is undoubtedly lucrative. Weapons and security producing enterprises manufacture all the stockpiles of war that they wish to market for earnings. Therefore, most of it is delivered to their potential consumers and the stockpiles are gotten rid of. Now those prospective buyers: governments and militias have their stocks full, which they paid using taxes or other activities like ransoms and drug peddling. For that reason, they have to justify the rationale for acquiring the battle arsenals to the citizens or themselves. This is through wars and wars that have to be sanitised by the populace and their supporters.

War never works for any individual or group, but for only a dominant elite few: the wealthy who propagate and influence patriotism and ethnic war-peddling worldwide, making big dollars in earnings from devastations and death, while inspiring the citizen's backing [27]. Making earn-

ings out of warfare is a very age-old phenomenon, as there have been organisations delivering weapons to ready militaries and subsequently earn from wars.

Warpreneurship

The chance of a civil war occurring in developing countries with dependency on exporting natural resources is much higher than in developing countries that do not have natural resources or are not dependent on exporting this [32]. This is because intrastate wars are primarily fought over resources (even though the public is misled by other motives, such as the threat of 'terrorist attacks, to cover up motives of securing resources and making a profit).

Executive Outcomes (EO), a commercial, military organisation, performed its first critical security expedition in Angola in 1993. The organisation was contracted to represent the Angolan state by Anthony Buckingham, a high-ranking consultant to numerous North American oil firms [3]. Their mission was to retake and secure oil reserves from UNITA rebels, an undertaking that EO completed with precision. The EO's exemplary performance gave rise to a \$40 million deal with the Angolan state for training and supplying armaments to the country's military and offer security against UNITA [3]. Moreover, after the contract renewal with EO in 1994, government troops' accomplishment against UNITA forced the rebels to sign a peace agreement with the Angolan administration. This was a big win for the EO.

Executive Outcomes' success steered a group of British-based entrepreneurs to its control. They formed a conglomerate of associated military enterprises, for example, Ibis Air, Alpha 5, Saracen International, Teleservices International, Life-guard, Bridge International, Shibata Security [36]. And also, resource extractions organisations, for example, Branch Energy, Heritage Energy, Ranger Oil, Diamond Works [36]. The establishment of the consortium of associated military enterprises and resource extractions organisations had one objective for the entrepreneurs, the control and extraction of the oil reserves in Angola.

The article "Warrior for hire in Iraq" describes that the ten-leading commercial, military organisations spent a further 32 million US dollars lobbying. They also spent an extra 12 million US dollars on political campaign contributions [34].

Commercial, military organisations, are not only selling their services to countries, but they are also serving as security operators for aid organisations [35]. There are no natural limitations for commercial, military organisations as to whom they may sell their services.

As already mentioned earlier, the armaments producing organisations do not make a profit by the mere fact of selling their services and products. Selling would mainly result in stockpiling, and stockpiling does not give assurance to future trade. The weapons have to be used to fight wars, whereby both conflicting parties will have stockpiled enough. If both sides are peaceful and not equipped yet, the wantpreneurs will create a conflict and divide them.

During the 1980-88 Iran-Iraq war, the USA government often insisted on neutral in the protracted war. However, the Reagan government discretely resolved moments after taking office in January 1981 to permit Israelis, bitter foes of Saddam Hussein, to supply numerous billion dollars' worth of USA manufactured weapons as well as spare parts to Iran [15]. That intervention and the resolve to assist Tehran aided Tehran to disregard initial expectations of a rapid Iraqi triumph and attain significant achievements early in the conflict, which had commenced with an Iraqi assault in September 1980.

In 1982, the Reagan Administration secretly resolved to hand over highly classified information to President Saddam Hussein. They also authorised the trade of USA-made weapons of war to assist Iraq in forestalling an impending loss in the conflict with Iran. The USA decision to supply pivotal help to Baghdad was reached after the USA intelligence organisations cautioned that Baghdad was on the brink of being overrun by Tehran, whose military had been reinforced the year earlier by clandestine cargoes of the USA-made weapons [15]. Washington also "looked the other way," as USA-made weapons were being flown to Iraq from Baghdad's partners in the Middle East, as from 1982. Saudi Arabia and Jordan shipped small guns and mortars, amongst other arms, to Iraq, whereas Kuwait traded thousands of TOW anti-tank ammunitions with the Iraqis. By 1982, the Jordanian armed force was consistently deviating USA-made Huey helicopters for Baghdad [15].

The USA officials made no effort to stop these transfers, although the USA export law forbade the third organisation relocation of USA-made

weapons without the USA's authorisation. Thus, the Americans were supplying both parties to see neither party domineer the strategic oil region. And by just firing these weapons and using the vast of other hardware, it amounted to revenues in unimaginable ways that helped reduce the USA government stock and aided in further production by its military producing firms.

It can be argued that the US's presence in Afghanistan had as much to do with the survival of Bush in the 2005 general election after the 9/11 attack dented his image as a president who had not protected the US from a severe home attack. By attacking and toppling the Taliban government, Bush was portraying machoism to America as the right man needed to finish the job of going after criminals everywhere and making America safe again. This is one of the best ways to preserve political power and war funding by keeping the citizens in continuous fright of 'terrorists' and terrorism [28]. As a result, the American citizens consented to a more significant part of government revenues funding the boundless industrial-military complex.

The Warfare in Afghanistan commenced on October 7 2001, with the coalition air bombardment on the Taliban and Al Qaeda forces and installations, officially launching Operation Enduring Freedom. This was in response to the 'terrorist's attack on September 11, 2001, in the United States, killing 2,977 people, excluding the 19 hijackers. The military mission was to prevent future attacks on the Americans by the 'terrorists' relishing in a haven in Afghanistan. In the ensuing 17 years, the USA has suffered around 2,400 military casualties in Afghanistan [41]. The US Congress has also reserved over \$132 billion (Cost of War Update as of March 31, 2019) in support of Afghanistan since 2002, with approximately 63% of it for security [41]. This is gains from a war for the leader and their cronies and simply a business venture.

Interestingly, after the CIA tracked Osama bin Laden to the Tora Bora cave southeast of Kabul on December 3 2001, the American military leisurely engaged to capture him, as they left the operation to be undertaken by a ragtag Afghan contingent [9]. It resulted in the eventual escape of bin Laden for Pakistan. Which raises the following questions that: Would his capture have led to the end of the storyline of making America safe again and, therefore, an end to the reasons for spending billions on the military in Afghani-

stan? Was the US troops less assertive role in his capture a strategy to ensure his escape? In mid-2019, the American administrators were negotiating directly with the Taliban' terrorists' on countering terrorism. However, it is still vague on what type of political arrangements can contain both the Taliban and the US to the level that the former completely forsake their armed war/insurgency.

In 2003, the USA attacked Iraq under the pretence that Iraq bared a security risk to America, as it stocked weapons of mass destruction. For the reason that Baghdad sponsored terrorism against Americans. Another pretext was to save Iraqi citizens from Saddam Hussein's decade's old tyranny [23]. In the aftermath of 9/11, the political elite was able to justify that war and rally the American citizens on what engagements to be involved in defeating terrorism (familiar detested foe) [24]. Assuming that some topmost leaders in the Bush government had by then resolved to oust President Saddam Hussein notwithstanding the 9/11 assault, President Bush would have found it difficult to garner any backing from the American citizens and its partners. The political resolve and the factual grounds vital to validate the warfare were absent. Nearly all the military new technology built-in terms of trillions of dollars since the 1980s, and intended to tilt any war with the Soviet Union to US advantage, had never been previously tested in a combat scenario. By introducing high-tech weapons during the operation, it was showcasing their effectiveness to their customers. This meant that their success rate in Desert Storm had to be shown to be dazzling by the western media, who had strategically been embedded in the operation.

Without a doubt, even before the dust of the warfare had settled in the gulf, arms manufacturers from Britain, France, United States, West Germany, and other countries were gathering in the Middle East to hawk their merchandise. Saudi Arabia, the biggest buyer, was interested in Apache helicopters, Abrams M1A1 tanks, AWACS radar planes, F-15 fighters, Patriot missiles, Bradley fighting vehicles, Seahawk helicopters, and multiple-launch rocket systems [1]. Israel wanted more Patriot missiles, the M-109 artillery, advanced F-15 fighter, and portable battlefield navigation systems [1]. Egypt is interested in buying the Hawk missiles, M-60 tank upgrades, and F-16 fighters [1]. And the United Arab Emirates, and so did Bahrain and Turkey, made clear that they

would like to have the Patriot missiles and Abrams M1A1 tanks. The only political objectives accomplished were the Bush administration's arrogant determination to overthrow Saddam Hussein and prove that it could remove any government it disliked [20].

And the results indicate that, for the first time since 2002, the five top positions in the Global arms industry rankings are solely held by weapons organisations established in the USA: General Dynamics, Northrop Grumman, Boeing, Lockheed Martin and Raytheon. These five organisations exclusively accounted for \$148 billion and 35 per cent of total Top 100 arms sales in 2018 [37]. Total arms sales of the USA organisations totalled \$246 billion, a corresponding of 59 per cent of all weapon transactions by the Top 100 Global arms organisations. That was a 7.2 per cent increase compared with 2017.

In September 2015, Russia intervened in the Syrian civil war surprising its own nearest commentators of Moscow's overseas and security strategy. It had persistently been held that the Russian armed force would not possibly be mobilised to involve in excursion assignments beyond Russia's closest vicinity of the post-USSR. In Syria, Putin's banking on President Assad's administration was visibly important, but the indication that he would expose his military to rescue al-Assad appeared not a possibility. Yet, surprisingly, that was exactly what transpired. Therefore, it is imperative to answer why Putin would engage in such an adventure regarding this action.

The collective weapons trades of the 10 Russian organisations during the 2018 grading were \$36.2 billion, a minimal reduction of 0.4 per cent in 2017 [39]. This was an arms trade fall from 9.7 per cent in 2017 to 8.6 per cent in 2018. This could be partly related to the considerable development in the collective weapons sales of the USA and European organisations in 2018. The arms manufacturers in the USA and Europe were doing something right that the Russians had not been doing, and that is, they had successfully showcased and sold their weapons in various war theatres, but Russia had not.

Commentators had predicted a heightened danger of an accidental clash between the Russian Aerospace Forces (VKS) and the United States Airforce (USAF) over a congested Syria's airspace [7]. Nevertheless, Russian planners considered the USA presence in the Syrian theatre, and Russia was assured that the allied jets would not ag-

gressively challenge their presence. Let us make a quick rewind to bring everything into focus. As of 2003, Trump was in extremely distressed financial difficulty, and his enterprises were collapsing. In 2004, Casino Resorts and Trump Hotels applied for bankruptcy with a debt of 1.8 billion dollars [16]. He couldn't get anyone in the USA to bail him. That is when the Russian 'intelligence' picked up the scent, and Trump's bailout was all coming out of Russia. His association with Moscow is more profound than ever recognised, and all with Putin's approval. Hence, Trump eventually made a comeback, particularly with investment by affluent citizens of Russia and the former USSR republics. The Russian intervention in the Syrian civil war was likely an invite of an ally to undertake some warpreneurship. Therefore, there was no way going to be a risk between Putin's and Trump's pawns.

The Russian defence-industrial complex (DIC) represents a large share of Russian's GDP as a whole. Moscow's military corporation comprises approximately 1,500 enterprises comprising research institutions, design bureaus, and production complexes acquired from the former USSR. As of 2014, the DIC comprised 1,339 organisations, engaging 1.3 million persons. The overall expenditure on security hardware and research and development amounted to approximately \$45.4 billion, or 3.4% of Russian GDP [4]. With the increasing contest in the weapons market and the development of new actors, Russian's main interest is to safeguard its current prevailing place. In part, the market launch of fresh innovations of weapons in Syria means that Kremlin can count on it. So, the Syrian conflict was used as a live-fire testing range for a new generation of Russian weapons and operational techniques. This was made evident by systematic deployments of every type of combat aircraft in the Russian catalogue, including modern Russian attack helicopters Ka-52s, Mi-35Ms, Mi-28Ns, and Su-25SM, Su-24 Su-27, Su-34s, S-300VMD and S-400 anti-air missile systems, strategic bombers that had previously at no time been able to fire a weapon in a war scenario.

The conflict in Syria has had an excellent repercussion on the Russian weapons industry. The conflict has worked as a testbed and as an audition for new Kremlin military accessories. As a result, Russian arms wantpreneurs have been able to get new equipment orders, including the S400 anti-aircraft missiles for Turkey, Saudi Arabia and India.

On October 14, 2011, the Kenya Defense Force (KDF) invaded Somalia. It was alleged that Al-Shabaab was to be blamed for the decline of a security, the spillover of skirmishes into neighbouring territories, particularly in Kenya, and the severe humanitarian condition persisting in several places of Somalia [28]. However, Kenya had developed to be a target for 'terrorist' assaults even before the advent of Al-Shabaab. August 7 1998, the bombing of the American Embassy in Nairobi with a death toll of 213 people and 4,000 wounded [22]. Therefore, Kenya embarked on heavy military spending that was informed by the need to defend its territory against the Somalia-based Al-Shabaab' terrorists' who had targeted civilians and security agencies in significant towns and border townships in the past.

Surprisingly, after the KDF incursion into Somalia, during 2011-2012, Kenya has been attacked approximately 17 times, with the usages of grenades and other explosive devices. Close to 48 people have perished in these assaults, and approximately 200 people injured [22]. The targets have included churches, police agents, infrastructure, bars and nightclubs, a downtown building of small shops, learning institutions, and a bus station. This points to a deteriorating security situation in Kenya despite its military operation in Somalia that was supposed to make Kenya even safer. Instead, it is a military operation that has seen the country spend immensely on military equipment to the extent that it is alleged to be in an arm's race with the neighbours [31]. It can be argued that the main reason for the continuing Al-Shabaab attacks in Kenya is not because the Kenyan security agents are unable to curb them, but for some of the leaders to preserve power and funding for war by keeping the public in perpetual fear. As a result, they can justify to the citizens the much-increased military financing. These new wars have nothing nationalism, but they are made to create good business for some leaders and their associates.

As informed by the Stockholm International Peace Research Institute (SIPRI), Kenya acquired 186 million dollars' worth of current military weapons in five years between 2010-2015, in comparison to 8.6 million dollars' expenses between 2005-2009 which was a 20 % increase during the season and the uppermost in East Africa [31]. Military imports by Kenya increased significantly, and in 2007-11, it acquired 32 WZ 551 APCs and 4 Z-9WA helicopters from China, 15 second-hand F-5E combat aircraft from Jor-

dan, 35 Puma M-26 APC from South Africa valued at Sh1.6 billion that are immune to an explosion from land mines and improvised explosive devices (IED) and 3 Mi-171 helicopters from Russia [18]. The stockpile also includes the largest vessel in the Kenya Navy fleet at 43 million dollars' naval ship from Spain christened KNS Jasiri [18]. During the 2013-17 period, it acquired two second-hand combat helicopters, 13 transport helicopters, a small number of self-propelled howitzers and 65 light armoured vehicles [43].

In addition, Kenya was diverting weapons supplied by Ukraine to South Sudan, which was still under the European Union arms embargo. The deliveries and satellite images show that some T-72 tanks were delivered to Southern Sudan via Kenya [17]. Despite the USA being convinced that arms have been diverted to Southern Sudan by Kenya and Ukraine, the USA did not call for international sanctions against either country. And security commentators have concluded that Kenya was acting on the behest of the Americans. The USA was interested in ensuring that Ukraine could earn foreign exchange and increase its coffers which was being depleted due to the crisis it was having with Russia. Once in Southern Sudan, war machinery was deployed to fight an enemy who was no longer Sudan. Hence a new enemy had to be created, where vice president Riek Machar comes into the picture. Where there is a lack of a definite enemy, one has to be created to justify the usage of the war machinery. The wantrepreneurs and their cronies will propagate and influence patriotic and racial war-soliciting to inspire the citizen's backing to make big dollars in profits.

In 2017, Kenya obtained an undisclosed quantity of AH-1 cobra assault helicopters as the quota of its armed forces collaboration with Jordan [29]. Nairobi also obtained its closure of two Huey II helicopters [29]. The crafts are powered by new Honeywell T53-L-703 engines, qualifying them to have an enhanced hover performance in hot environments, reflecting KDF's requirements in its Somalia operation. The Sipri report illustrates that, in 2017, Kenya procured a second-hand maritime gun, AK-630 30mm, from Montenegro to upgrade Jasiri OPV (offshore patrol vessel). This is supposed to also meant to keep Al-Shabaab at bay from preying on the seagoing vessels. In February of the same year, the Kenya Navy obtained the closure of six metal shark patrol boats [29]. Additional four were supplied over last year, the cost totalling \$4.9 million.

Kenya's armed forces expenditure in 2018 rose as it received several MD 530F armed light helicopters from US-based MD Helicopters costing \$253 million, whose orders had been placed in May 2017 [29]. The order from Nairobi included the provision of MD 530F "cayuse warrior" light assault helicopters, 24 M260 rocket launcher systems, 24 HMP 400 machine gun pod systems and assorted ammunition [29]. Bell Helicopters is to deliver to Nairobi and Kampala with 13 helicopters and spare parts. These neighbours intend to adapt to enhance their expeditions under the African Union Mission in Somalia (AMISOM) command. Al-Shabaab militants are a terrorist organisation whose mention gives legitimacy for the ruling elite to engage in warpreneurship. All this is good business for the warpreneurs and the countries' leaders engaged in it for more than just their political survival and growth.

Kampala's rendezvous in Somalia can contend as the most contemporary illustration of the Museveni regime's multi-pronged 'image management' approach to obtaining favourable relations with backers. The mission's first troops, 1,650 Ugandan peacekeepers, were deployed in March 2007. In so doing, the regime has been able to sanctify itself in the eyes of the warpreneurs. In 2014 and 2015, it procured arms from Romania, Slovakia and Bulgaria, then sent them to Juba's government, breaching the European Union weapons embargo in 2011.

Ammunition in two truckloads was transported to South Sudan from Uganda in June 2016 [29]. Later that same year, the South Sudan military obtained truckloads of small arms ammunition and two fighter jets. It is still a mystery how the two L39 jets that Kampala from Ukraine procured showed up in the Juba government, but it

is a lesson learned and then perfected from her neighbour Kenya. In 2017, confidential reports claimed that the Uganda government had purchased weapons from Russia and transferred them to the South Sudan military. The 40 delivery was made of 31 tons of magazines, AK-47 rifles and assorted weapons.

In September 2017, the armed force of Uganda in Amisom received 19 Acmat Bastion armoured carriers from the USA. And in February 2018, they also got a supply of an undetermined quantity of uncrewed aerial vehicles (UAVs) for reconnaissance, surveillance and intelligence. In addition, Uganda expected and received five helicopters from the United States in 2018 as part of an \$87.6 million arrangement with Bell Helicopters endorsed in September 2016. The arms from the United States manufacturers have been made possible due to Kampala joining the bandwagon of the 'Axis of Virtuous' (the opposite of the Axis of Evil) by fighting a terrorist group Al-Shabaab.

CONCLUSIONS

But what is evident with the new wars is that they have to be given more lease of lifelike, 'Axis of Virtuous' because it is good for business. The 'Axis of Virtuous' is a highly placed ruling elite who understand the potential of warpreneurship. Gains from a war for the leader and their cronies would be simply a business venture. Believing we are under constant threat of the unseen, we become willing and dedicated sponsors to the financial and political ideas of the monstrous war industry, marketed to us under the guise of our security and protection. War does not result in peace but immense profits and securing resources for the dominant elite few.

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Поняття та зміст адміністративно-правового інституту досудового оскарження в Україні

The Concept and the Content of the Administrative and Legal Institution of Pre-Trial Appeal in Ukraine

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Анотація. У статті на основі методології системного аналізу досліджується поняття і зміст адміністративно-правового інституту досудового оскарження. На підставі чинного українського законодавства проаналізовано переваги і недоліки адміністративного оскарження в Україні. Розглянуто адміністративне оскарження як складний комплексний правовий інститут, що включає процедурні та процесуальні норми. До сутнісних ознак відносин, що виникають у зв'язку з досудовим оскарженням відносяться: дійсне або передбачуване порушення прав, свобод і законних інтересів особи, яка не наділена владними повноваженнями у сфері державного управління; особливий суб'єктний склад відносин у сфері досудового оскарження; адміністративно-правовий спір – вирішується суб'єктом, наділеним юрисдикційними повноваженнями, який не відноситься до органів судової влади, прямо або побічно (щодо правового статусу або специфіки діяльності) пов'язаний з адміністрацією; особливий засіб захисту права – скарга, за колом наданих гарантій відрізняється від адміністративного позову. Водночас визначено адміністративно-правовий інститут досудового оскарження як систему норм, що регулюють процедуру прийому, реєстрації, розгляду скарг, прийняття рішень за скаргами органами, не пов'язаними із судовою системою.

Ключові слова: адміністративне право; адміністративні процедури; досудове оскарження; скарга; адміністративний позов; адміністративне судочинство в Україні.

Abstract. The article studies the concept and the content of the administrative-legal institute of pre-trial appeal based on the system analysis methodology. Based on the current Ukrainian legislation, the advantages and disadvantages of administrative appeal in Ukraine are analysed. The administrative appeal is considered a complicated, complex legal institution, which includes procedural and processual norms. The essential features of the relationship, arising in connection with the pre-trial appeal include: actual or alleged violation of the rights, freedoms and legitimate interests of a person who is not endowed with authority in the field of public administration; particular subjective composition of relations in the field of pre-trial appeal; administrative-legal dispute - resolved by an entity, endowed with jurisdictional powers, which does not belong to the judiciary, directly or indirectly (regarding the legal status or specifics of the activity) related to the administration; a particular remedy - a complaint differs from the administrative claim by the scope of provided guarantees. At the same time, the administrative-legal institute of pre-trial appeal is defined as a system of norms that regulate the procedure of receiving, registering, reviewing complaints, and making decisions on complaints by organisations not related to the judicial system.

Keywords: administrative law; administrative procedures; pre-trial appeal; complaint; administrative claim; administrative proceedings in Ukraine.

ВСТУП

Досудове оскарження дій органів публічної адміністрації покликане забезпечити оперативний захист (відновлення) порушених прав, свобод і законних інтересів у сфері публічного управління та звільнити громадян від необхідності звертатися до суду. Водночас досудове оскарження виконує не тільки правозахисну функцію – досудові процедури оскарження є важливим каналом зворотного зв'язку, що з'єднує громадянське суспільство та інститути публічної влади, за яким останні мають можливість отримувати інформацію про недоліки в окремих питаннях публічного управління та оперативно усувати ці недоліки.

Термінологічне визначення досудових процедур оскарження в законодавстві можна назвати хаотичним. Як вважають окремі дослідники, законодавець використовує терміни «позасудове оскарження», «досудове оскарження», «претензійне провадження». Цими обставинами обумовлена необхідність формування лаконічного та структурованого визначення інституту досудового оскарження. Водночас адаптація національного законодавства до вимог Європейського Союзу вимагає теоретичного осмислення сутності інституту досудового оскарження, визначення змісту в умовах розвитку законодавства.

Метою статті є дослідження поняття та змісту адміністративно-правового інституту досудового оскарження в Україні.

РЕЗУЛЬТАТИ ДОСЛІДЖЕННЯ

Аналіз наукової літератури, в якій розглядаються окремі аспекти визначення оскарження як правового інституту, дозволяє виділити 3-и основні питання, дослідження яких необхідно для визначення змісту адміністративно-правового інституту досудового оскарження, а саме: 1) розмежування інституту досудового оскарження і інституту звернень громадян; 2) розмежування інституту досудового оскарження і адміністративного судочинства; 3) визначення системоутворюючих ознак інституту досудового оскарження та елементів структури.

Д. Лученко [1], розглядаючи проблеми оскарження рішень, дій або бездіяльності суб'єктів публічно-владних повноважень у

літературі радянського періоду, зазначав, що інститут права скарги розглядали як сукупність адміністративно-правових норм, що регулюють суспільні відносини, що виникають у процесі прийому, розгляду та вирішення скарг і заяв в органах державного управління [1].

У вказаний період для визначення загальної для різних видів звернень категорії був використаний термін «заява». Учені проводили певну грань між заявою та скаргою. Заява, яка носить характер скарги, містить вказівку на порушення прав і законних інтересів. Скарга та заява завжди пов'язані із зазначенням на недоліки в діяльності державного апарату. Більш чітко розмежування скарги та інших видів звернень запропонував В. Сорокін. На думку дослідника, схожість між скаргою та заявою складається лише в тому, що вони є формами звернень. Різницю між скаргою, заявою та пропозицією визначає мета, а предмет заяви – відновлення порушених прав. В. Сорокін вважав, що скарга і інші види звернень мають специфічні властивості, тому порядок розгляду скарг і інших звернень має бути різним [1].

Багатьма вченими скарга розглядалася як елемент інституту звернень громадян. Ця позиція спирається на систему чинного законодавства. Адже загальний порядок розгляду скарг і інших звернень встановлено одним нормативно-правовим актом – Законом України «Про звернення громадян» [2].

Незважаючи на це, розгляд скарг як елемента інституту звернень громадян видається необґрунтованим. Наведемо кілька аргументів на обґрунтованість цієї позиції. По-перше, тільки скарга пов'язана з наявністю дійсного або гаданого порушення прав, свобод чи законних інтересів. З цього випливає особливість скарги – наявність дійсного або гаданого порушення законності у сфері публічного управління владним суб'єктом (права, свободи та законні інтереси суб'єкта оскарження встановлені законами і іншими нормативно-правовими актами). По-друге, тільки скаргі властиво наявність адміністративно-правового спору між суб'єктом оскарження та владним суб'єктом, який підозрюється у порушенні прав, свобод і законних інтересів. Оскільки адміністративно-правовий спір передбачає наявність протиріч або розбіжностей між суб'єктами адміністративних право-

відносин, скарги завжди властиво наявність спору.

На думку окремих дослідників, скарга не завжди свідчить про наявність адміністративно-правового спору в зв'язку з обставинами: по-перше, якщо скарга необґрунтована, то спір може бути лише проявом недобросовісності іншої сторони; по-друге, нерідкі випадки несумлінності скаржника; по-третє, не варто виключати фактор помилки скаржника. Якщо зазначені обставини мають місце вони лежать у площині моральної оцінки дій особи, яка звернулася зі скаргою, і не свідчать про відсутність адміністративно-правового спору, оскільки розбіжності та протиріччя між публічною адміністрацією і особою, яка звернулася зі скаргою, об'єктивно виражаються в змісті скарги.

По-третє, в правовій системі України регулювання розгляду скарг вийшло за межі законодавства про звернення громадян. Існує розгалужена система нормативно-правових актів, положення яких регламентують спеціальні процедури досудового оскарження [3]. Дія загального порядку розгляду звернень на ці процедури не поширюється. Ще один аргумент на підтримку виділення досудового оскарження в якості самостійного правового інституту – спеціальне правове регулювання відносин, пов'язаних з досудовим розглядом ряду категорій скарг.

Виходячи з наведених суджень інститут досудового оскарження та інститут звернень громадян є самостійними правовими інститутами, норми яких регулюють суспільні відносини, що володіють специфікою, зумовленої відмінностями скарги від інших звернень.

У літературі можна зустріти думку про те, що судова скарга і адміністративна скарга відносяться до одного правового інституту, у контексті розширеного розгляду предмета регулювання інституту оскарження в адміністративному праві, включаючи адміністративну скаргу, цивільно-правову (судову) скаргу, господарську (судову) скаргу. Керуючись цією позицією можна прийти до висновку про те, що існує досить великий за предметом регулювання правовий інститут оскарження, який включає норми, що регулюють відносини у галузі досудового оскарження та у сфері адміністративного та господарського судочинства. З цією точкою зору не можливо погодитися.

Відносини у сфері досудового оскарження та відносини у сфері судового вирішення адміністративно-правових спорів мають різну правову природу. По-перше, правосуддя в адміністративних справах, не входить у коло питань, що становлять предмет діяльності виконавчої влади. Досудове вирішення адміністративно-правових спорів, навпаки, здійснюється адміністрацією. Коло суб'єктів правовідносин – основна відмінність досудового оскарження від адміністративного судочинства [4].

Досудове врегулювання адміністративних спорів і адміністративне судочинство – це різні інститути. З'єднання в одному інституті досудового оскарження та адміністративного судочинства означає змішання правосуддя у адміністративних справах і вирішення адміністративно-правових спорів позасудовими органами. Це не відповідає сутності принципу поділу влади.

По-друге, категорії «цивільно-правова (судова) скарга», «господарська (судова) скарга» суперечать теоретичній концепції поняття «адміністративний позов», яке утвердилося не тільки в науці адміністративного процесуального права, а й у Кодексі адміністративного судочинства України [5].

Відмінною особливістю адміністративного позову є використання судом спеціальних процесуальних засобів, у тому числі компенсаційних механізмів, при вирішенні спору, заявленого адміністративним позовом.

Серед процесуальних засобів, властивих адміністративному судочинству, але не властивих досудовому оскарженню, можна виділити можливість призупинення дії оспорюваного акта, усний розгляд (за загальним правилом), право суду винести окрему ухвалу у разі виявлення порушення законності у межах вирішення справи. Коло гарантій захисту прав, наданих адміністративним позовом, істотно ширше, ніж коло гарантій, що надаються скаргою. Це дозволяє розглядати адміністративний позов і скаргу в якості окремих засобів захисту права.

Сутнісні відмінності відносин у сфері досудового оскарження і відносин, що виникають у зв'язку з судовим вирішенням адміністративно-правових спорів, проявляються суб'єктному складі, використанні різних засобів захисту права – скарги та позову.

Істотні відмінності відносин у сфері досудового оскарження та відносин у сфері адміністративного судочинства не дозволяють розглядати їх у контексті одного інституту. Відмінні риси досудової скарги як засобу захисту прав в управлінських відносинах дозволяють розглядати адміністративно-правовий інститут досудового оскарження в якості самостійного правового інституту поряд з інститутами звернень громадян та адміністративним судочинством.

Я. Михайлюк [6] зазначає, що інститут адміністративного оскарження пропонують включати до комплексного інституту оскарження в адміністративному праві, до якого, окрім інституту адміністративного оскарження, входять також інститути судового оскарження та непрямого оскарження.

Як сутнісні ознаки відносин, що виникають у зв'язку з досудовим оскарженням, які відрізняють від інших відносин, можна виділити:

- дійсне або передбачуване порушення прав, свобод і законних інтересів особи, яка не наділеного владними повноваженнями;
- дійсне або передбачуване порушення законності у сфері державного управління;
- адміністративно-правовий спір між суб'єктами відносин у сфері досудового оскарження;
- особливий суб'єктний склад відносин у сфері досудового оскарження, адміністративно-правовий спір вирішується суб'єктом, наділеним юрисдикційними повноваженнями, який не відноситься до органів судової влади, прямо або побічно (щодо правового статусу або специфіки діяльності) пов'язаний з адміністрацією;
- відносини у сфері досудового оскарження завжди виникають до звернення до суду та припиняються при порушенні справи у порядку адміністративного судочинства;
- особливий засіб захисту права – скарга, за колом наданих гарантій відрізняється від адміністративного позову.

Виходячи з наведених ознак, предмет правового регулювання інституту досудового оскарження можна визначити, як сукупність суспільних відносин, що виникають у зв'язку зі скаргами, що вирішуються органами (посадовими особами), які не відносяться до судової влади.

У межах структури адміністративно-правового інституту досудового оскарження можливо виділити три групи правових норм, що регулюють різні досудові процедури оскарження. Дані процедури мають специфіку, але відповідають сутнісним ознакам відносин у сфері досудового оскарження, позначеним вище.

Перша група норм у структурі адміністративно-правового інституту досудового оскарження – норми, що регламентують позасудове (адміністративне) оскарження. Відносини у даній сфері виникають у зв'язку з направленням скарг до органів публічного управління (органи виконавчої влади та інші державні органи, які здійснюють виконавчо-розпорядчу діяльність) або до посадових осіб зазначених органів. Позасудове (адміністративне) оскарження, на відміну від правосуддя в адміністративних справах, передбачає оперативність, меншу формалізацію, не передбачає (за загальним правилом) участь особи у розгляді, яка направила скаргу.

У межах позасудового оскарження скарги розглядаються органами публічної адміністрації, які не входять до судової системи, розглядають скарги за процедурою, що не володіє значною схожістю з адміністративним судочинством. Мова йде про принцип змагальності, який практично не застосовується у позасудовому оскарженні. Для позначення даної процедури використовуються терміни «позасудове» або «адміністративне» оскарження.

У системі правових норм, що регулюють позасудове оскарження, можна виділити два елементи. Перший елемент – правові норми, що регулюють загальну процедуру позасудового оскарження. Основа даної системи норм – положення Закону України «Про звернення громадян». Відповідно до Закону приймаються підзаконні акти органами публічної адміністрації, що встановлюють додаткові гарантії реалізації права на оскарження. Другий елемент системи норм, що регламентують позасудове (адміністративне) оскарження – норми, що регулюють спеціальні процедури позасудового оскарження (оскарження правових актів податкових, митних органів, державних і приватних виконавців тощо). Ці процедури мають значні відмінності від адміністративного судочинства.

У літературі ведеться дискусія щодо віднесення адміністративного оскарження до про-

цесуальних адміністративних інститутів [1] та особливої форми адміністративної процедури [7]. Прийняття Закону «Про адміністративну процедуру» сприятиме розгляду зазначеного питання у контексті комплексного правового інституту адміністративного права.

Друга група норм у структурі адміністративно-правового інституту досудового оскарження – норми, що регулюють квазісудове оскарження. У даний час приклади функціонування квазісудових процедур оскарження існують в Україні [8, с. 155]. Процедура, за якою вирішують спори квазісудові органи, володіють значною схожістю з адміністративним судочинством. Квазісудові органи не входять у судову систему не відносяться до виконавчої влади, але можуть бути певною мірою залежні від останньої (головним чином – у сфері формування складу квазісудових органів).

Сутнісна відміна квазісудового оскарження від позасудового (адміністративного) полягає в тому, що воно має значну схожість з судовим вирішенням адміністративно-правових спорів. Ця схожість полягає в обмеженому застосуванні деяких принципів адміністративного судочинства, у першу чергу принципу змагальності, який проявляється в усному розгляді справи на засіданні квазісудового органу.

Третя група норм у структурі адміністративно-правового інституту досудового оскарження – норми, які регламентують оскарження постанов у справах про адміністративні правопорушення у досудовому порядку. Відносини у даній сфері пов'язані з дійсним або можливим порушенням прав особи, щодо якої ведеться провадження, наявністю адміністративно-правового спору, що вирішуються суб'єктом, який не відноситься до судової системи. Ці відносини можна розглядати у контексті предмета правового регулювання інституту досудового оскарження.

Розвиток досудової скарги в епоху інформаційних технологій вимагає розширення можливостей для подання скарг і матеріалів, доданих до них, у формі електронного документа. Для спрощення взаємодії громадян і уповноважених органів (посадових осіб) при направленні скарг за допомогою інформаційно-комунікаційної мережі Інтернет доцільна централізація прийому скарг на базі одного

Інтернет-порталу (цим порталом потенційно може стати Єдиний портал адміністративних послуг).

Централізація направлення скарг через Єдиний портал адміністративних послуг може зажадати виконання кількох умов: поширення електронного формату надання адміністративних послуг; регламентація і організація контролю у сфері дотримання правил і термінів прийому, реєстрації, направлення скарг у інший орган, що направляються в електронній формі, направлення рішень за цими скаргами; систематизація законодавства про досудове оскарження та уніфікація основних вимог до форми та змісту скарг.

ВИСНОВКИ

Розвиток досудового оскарження як одного із способів вирішення адміністративно-правових спорів входить у сферу публічних інтересів суспільства. Досудове оскарження має значний правозахисний потенціал, який у даний час реалізований не повністю. За умови зближення стандартів досудового оскарження до стандартів адміністративного судочинства (в першу чергу, в частині надання громадянам права на участь у розгляді скарги та покладання тягаря доведення законності та обґрунтованості оскаржуваного акта на адміністрацію) досудові процедури оскарження можуть стати більш привабливим способом захисту прав, ніж адміністративне судочинство.

Досудові процедури оскарження мають ряд об'єктивних переваг перед адміністративним судочинством. За умови надання громадянам, які звертаються зі скаргою, деяких гарантій захисту прав, властивих адміністративному судочинству (в числі яких необхідно особливо виділити право на участь у розгляді скарги і покладання тягаря доведення законності та обґрунтованості оскаржуваного акта на адміністрацію), досудове оскарження може стати кращим для громадян способом дозволу адміністративно-правових спорів.

Норми адміністративно-правового інституту досудового оскарження регулюють відносини, що виникають у зв'язку з трьома різновидами процедур оскарження: позасудове (адміністративне) оскарження; квазісудове оскарження; оскарження постанов у справах

про адміністративні правопорушення в судовому порядку.

Адміністративно-правовий інститут досудового оскарження можна визначити, як систему норм, що регулюють процедуру прийому, реєстрації, розгляду скарг, прийняття рішень

за скаргами органами, не пов'язаними із судовою системою. Досудове оскарження є самостійним правовим інститутом поряд з адміністративним судочинством та інститутом звернень громадян.

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Digital Competences in the Profile of Teaching Education: Context of Remote Education of Peru

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Abstract. Education developed in the virtual context becomes remote today both because of the distance in which school groups are served far from the city, as well as the distance that teachers and students have to reach technological resources to educate and educate themselves, and the resources that affect a higher quality digital education.

In this sense, it is understood that digital skills are essential to generate relevant, comprehensive, inclusive and cooperative virtual educational methodologies, especially during the pandemic, which requires mastery of teaching techniques and mastery of these digital skills. The objective was to determine the causality of digital competencies on the teacher teaching profile. The methodology developed was quantitative, causal, correlational and transactional. The sample consisted of 200 active teachers in Basic Education from a Latin American city. These developed their teaching during the onset of the pandemic (2020) until the middle of the year 2021. The variables were evaluated with Likert-type scales. The reports conclude that the scores in digital competencies present moderate intensity of causality and correlation on the teaching profile of those evaluated. Similar effects were found from digital skills on the cognitive and affective characteristics of the profile, although there are common causal effects on motivation. It is suggested to include other variables in a multi-causal analysis, considering vulnerable contexts in evaluating teachers and their execution during the pandemic.

Keywords: basic education; digital competences; distance education; digital teaching; teaching profile; teaching technologies; teaching performance; remote education; virtual skills.

INTRODUCTION

Quality teaching performance or performance has been stereotyped with teacher training models based on learning by competencies from theoretical perspectives based on complex thinking, knowledge management and human talent, considering its transversal implication in intelligent organizations. This educational model has been reflected in contemporary teachers, implemented through a professional profile under the competence development model. However, from a more prospective model, this educational conception has already changed over time in various European, Asian and even North American contexts, shifting this perspective of the university curriculum towards the conception of global competencies [2, 27] and advanced digital skills, proposals from DigComp and DigCompEdu of the European Community [8, 9, 23]. Here is a question to ask: Are low training models based on the competency

model reflected in the development of teachers when carrying out educational activities? How much do educational profiles contribute to today's education as a contextual problem? For example, the model based on digital competencies increases the educational profiles of teachers in contexts in which the pandemic has hit economically and socially?

So far, global economic investment still does not allow for the reduction of inequalities. More than USD 160,000 million in the world [28] has been invested in Latin American countries still relegated with the support against the pandemic by SARS-CoV-n2 [Covid-19]. Less than 40% of the global policies for the attention of special needs in education have been met [10, 20]. Additionally, there are weaknesses in developing global competencies for using modern tools in up to 30% of the Latin American population, even though 50%

of teachers carry out synchronous teaching activities [19].

According to what has already been stated, more than 20% of the teaching staff population has problems using digital technologies because: how could teachers' digital competence be linked to them with their teaching profiles if they are devoid of the elements necessary for effective education? Are they likely to be related, assuming that they may have low levels of educational effectiveness in a poor context in Latin America such as Peru?... To all this is added that the teaching profile of local teachers is at a low level concerning their performance in teaching [4]: (a) 45% of teachers do not know the characteristics of the subject they teach, (b) less than 44% can evaluate themselves on what they do in the classroom [does not reflect], (c) around 70% of teachers do not know how to adapt the spaces and climate of coexistence during their pedagogical development with their students.

Digital competencies are the capacities and skills that allow the subject to use and understand virtual information and digital tools that allow learning. Both components [capabilities and skills] are currently conceived as a possibility of use [3, 8, 9, 10, 17, 26], so it is argued that capabilities are the skills that allow cognitively and procedurally to use information because this dichotomy has already focused on the arguments of international proposals such as DigCompEdu [16, 23, 26], which propose the development of the competency profile in teachers.

On the other hand, teachers' potentialities of effectiveness over technological tools [hardware-software] determining their professional quality since a digital technological profile is generated corresponding to the subject's capabilities. At present, connectionist approaches are oriented towards the use of technology and the efficiency of its usefulness in the field of action. However, digital constructivist proposals propose using, knowing, and promoting information among subjects who carry out teacher-student and student-student learning. In this sense, skills can be considered the capacity of use and the level with which the activity is achieved, and digital capacities are those skills developed that depend on theoretical and procedural knowledge about the use of information and the technological tools themselves.

Although some researchers in Europe have relied on the DigComp approach to conceptualize digital competencies as skills for the use of technologies, however, the discussion extends to the current proposals of other contemporary authors [18, 22, 29], who involve as part of the competencies the components: (a) knowledge, (b) emotionality, (c) use, and (d) promotion; in teacher professional development. Therefore, the conception of these competencies changes over time. Nevertheless, they are already considered inseparable constructs because teachers act in all required fields of human communication. They add their mediation to achieve learning, and that moment generates necessarily undeniable interrelationships. In the approach of [25] and [24], the needs to develop digital skills allow the recipients (students) to increase: (a) practical development, (b) collaborative learning, (c) technological practices, (d) aspects of thoughtful. Therefore, this concept [with which various contemporary authors agree] outlines the pedagogical practices from the educational training in the university. Therefore, the curriculum does not escape its proposal and considers that digital skills should be included in its programming to develop potentially sustainable societies.

In [26], these competencies have been considered constructs that configure the development of skills and capacities that develop the teaching profile to establish the didactic use of information in the classroom and promote and develop digital competencies in students. For this reason, consider the dimensions: (a) information and information literacy, (b) communication and collaboration, (c) creation of digital content, (d) security, (e) problem-solving. Through the development of capacities, students can achieve practical learning, self-regulated and emotional, since they seek to interact with safe information, achieve active interaction with people, use the information for cognitive development, and search for communication with the world. In this sense, they base their concepts on the theories of connectivism [7, 16]. However, criticism persists about what connectivism could not establish through informal learning through connections and communicative networks. These attitudinal and emotional components are not involved in developing these skills. Intrinsically advanced digital competencies have been found in teachers who are exposed to demanding situations. In these situations, the economic and social context predetermines their type of teaching [7, 9]. Other studies have

reported using technological tools implying the use of skills that are not well developed in professional training. This use increases the more practical there is with more current tools [3, 17]. Finally, the knowledge generated with digital skills can be developed to adapt to the situational context or to the community to which the subject is integrated [15, 21, 30].

Regarding the teaching profile, in [23], the cultural influence of the teacher was found concerning the global competencies that they demonstrated in teaching, considering technological competencies as part of them since they considered more outstanding authentic commitment and connection with social tradition and culture at the time when the individual considers improving their skills as an element of quality. In this sense, this could be aligned with the study of [13], who considered the teaching perspective based on instruction, organization and emotional interaction. Currently, teaching conditions improve due to the demands of the environment, the capacity of the teacher to organize their didactics, their strategies adapted to the needs of the students. Furthermore, it is necessary to adopt emotional and resilient competencies nowadays since more than 60 % of organizations worldwide cannot make this content more flexible [1, 20], avoiding its unity with teaching.

As has already been observed in other studies [2, 13, 14], teaching ability and its profile have been understood as the ability for instruction. However, the adaptive power of the teacher to various situations irrelevant to the classroom has been ignored [13]. Therefore, the instructive and self-efficacy dimensions [2, 5, 6, 12] were considered and those of a motivational-affective type [11, 12]. Regarding the research, it was considered essential to perform the teacher from developing skills that allow him to lead in student groups with multiple needs and learning rhythms. Complementing this idea, the working hypothesis is based on the work of [27], who report more significant commitment of the teacher as soon as they perfect their educational teaching practice, involving digital skills as a component of the said profile, this would be reflected as effects positive in the characteristics of cognitive and motivational-affective teaching of the teaching profile, according to raised by [11].

The research hypothesis was dedicated to verifying the causal influence of scores in digital skills on the teaching profile of teachers who practice

their profession through virtual teaching in the pandemic context of the year 2021. For this reason, these effects were also verified in the cognitive and affective-motivational characteristics of the profile.

METHODOLOGY

The method was deductive, transactional, with a non-experimental design. The study reviews the interaction of the digital skills variables as a causal element on the teacher teaching profile scores. In this sense, it is considered a causal-correlational research level. The sample included 200 Regular Basic Education teachers who taught classes from the beginning of the pandemic in 2020 to 2021, using an enveloping sampling (snowball). All belonged to a Latin American city ($X = 45.6$ years; $SD = 1.21$). Gender presented differences (female = 69%; male = 31%). The evaluation was carried out through Google Forms, distributed through text messages and emails through the management of managers interested in the investigation. The general evaluation format for these forms included the record of informed consent for inclusion in the study sample.

Research instruments. Scale for the Exercise of Digital Skills in Teachers [DS-T]. It is a Likert-type scale designed with 25 questions that seek self-assessment of digital competencies at deficient, regular and efficient levels. The grade is polytomous (1, 2, 3 scores) whose answers are raised to sentences of the type: "I use Google Drive to organize class materials...". The components that this scale measures are aimed at evaluating the dimensions: (a) Information and information literacy, (b) Communication and collaboration, (c) Creation of digital content, (d) Safety, (e) Problem solving, by that proposed by [26], based on the DigCompEdu approach of the Common European Framework. Finally, the test can be developed collectively or individually for 10 or 20 minutes.

Teacher Teaching Profile Scale [T-profile]. It is a Likert scale made up of 20 items in proposition format: "I apply techniques to generate lasting learning during class...". Each item has three response alternatives: Always, Sometimes, Never, which have a rating of 1-3 points. The research-based teaching characteristics of [13] are assessed: (a) Cognitive, (b) Affective, (c) Motivational. The resolution of the scale takes 15 to 25 minutes.

Opinion Analysis and Preliminary Statistics. Regarding validity, the preliminary versions of the instruments were subjected to expert evaluation. At first, three judges participated who reviewed the criteria of relevance, appropriateness and relationship. Then, after making the linguistic adaptation and appropriate corrections, and after these juries' approval, they were finally passed

through two other juries, which qualified the instruments as viable for the study. Table 1 reveals the acceptance percentage in each evaluation case. Regarding the reliability criterion, we sought the analysis of the internal consistency index with a piloting plan with 50 test subjects. The scores obtained revealed acceptable reliability indices for the research (Table 1).

Table 1 – Validity, reliability and correlations of the instruments DS-T and T-Profile

Scale	Validation [Range of agreements]	α	Components [correlations]*				
			Information and information literacy	Communication and collaboration	Creation of digital content	Security	Problem resolution
DS-T	[98.9-99.3]	.940	,971	,898	,807	,903	,981
			Cognitive	Affective	Motivational		
T-Profile	[99.5-99.7]	.891	,977	,931	,945		

Notes: α = Cronbach's Alpha; r.a. = Judges acceptance range; * $p < .001$.

Additionally, a correlation analysis of components and variables allowed finding high-intensity relationship ranges in Pearson's r Statistic (table 1). This ensured the preservation of groups of components concerning the variables as an experimental data method without resorting to subsequent factor analysis. Once the opinion and reliability analysis had been approved, the evaluation process was managed with the directors involved in each school unit (school) corresponding to the region, those institutions with poor contexts were located to measure the effectiveness of the instruments in teachers faced with the context of a pandemic with austere technological resources, but that demonstrate mastery of technology as part of their teaching skills. The evaluation began in March 2021 and culminated in the first days of June.

RESULTS AND DISCUSSION

According to the research objective, results were found that allow accepting the central hypothesis. From table 2, it can be determined that digital competencies are influential on the teaching profile of the teachers evaluated as part of the sample. The correlations were significant in the total scores and the general characteristics of the evaluated profile (cognitive, affective, motivational). Moreover, all these relationships were positive and significant. That is, the scores increase in one variable as well as in the others.

On the other hand, the intensity of the relationship between the teaching profile and digital skills was moderate. The correlations of digital competencies and profile characteristics were also moderate, with the relationship between affective characteristics and digital competencies being the one with the most incredible intensity. The one with the lowest relational score was that of motivational characteristics and digital competencies.

Table 2 – Correlations between digital skills, teaching profile and its characteristics

r	Teaching profile	Cognitive	Affective	Motivational
Digital Competences	,751*	,681*	,765*	,441**

Notes: * $p < .001$; ** $p < .005$

Once the correlations between variables and components had been verified, the calculation of coefficients of causality and explanation of the linear regression model between them was performed. Table 3 shows the causal correlation coefficient of digital skills influencing the teacher teaching profile, being of moderate power ($R = 0.731$). It is denoted that the causal power of digital competencies on motivational characteristics was low ($R = 0.321$), although moderate power indices were found in the other causal effects. This may explain that teachers involved in the search for virtual information, as well as being guided by others to

handle new technologies, has been critical in mastering virtual environments in teaching classes to their students, as has been mentioned in other studies that determined these digital characteristics in teaching [8, 9, 17]. This has also allowed them to develop new strategies; didactics adapted to the students they would serve in remote education. Many students do not present mastery of the technologies, but many also do not have the opportunity to have resources since teachers have developed techniques to provide feedback on teaching through the search for other social media to ensure that their students develop learning.

This evidence shows that digital competencies have made face-to-face strategies more flexible towards others developed in virtual

environments [16, 23]. For this reason, students with fewer resources can share tasks, perform exercises with fewer amounts of data use, borrowed resources, and few materials, which is made possible by teachers who today use virtual environments with multiple tasks. They require few monetary resources as well as technology. Although, according to [4], some essential characteristics may have had adverse effects of teaching in a pandemic, they have likely worsened in those whose teachers did not demonstrate efficient management of the competencies that we analyze in this study. Since more than a year after the pandemic, it is considered that the academic performance is low in the students [19] and the use of didactics in the teachers who already executed them in person.

Table 3 – Correlation coefficients and causal determination between digital skills and the teaching profile

Components	Teaching profile *	Cognitive	Affective	Motivational
R	,731	,655	,702	,321
Rs	,689	,641	,678	,227
gl	199	191	197	181
F	356,622	251,110	302,150	119,200
Anova (Sig.)	,000	,001	,000	,003

Notes: *Predictor: Digital Competences; Rs = R²

Regarding the determination coefficients (table 3), 69% of the total model of digital competencies' influence on the teaching profile is explained. In the effects on the profile components, explanations have been found in a range of 64 and 68% of digital competencies on cognitive and affective characteristics.

Given this, it can be asserted that the development of teachers' classes is oriented towards the development of practical tasks in their teaching, the achievement of cooperative activities, self-knowledge and feedback from students according to what is postulated by [13], even more, since remote education in the context in which the research has been developed, the cultural manifestations of the students are taken as has already been analyzed in other proposals [27], reflected in a national and local curriculum, following their strengths to minimize your weaknesses. Likewise, other investigations suggested that the affective sense of teaching adheres to instructive competence [2, 5, 11, 12] since teaching is inseparable from the power of affectivity between the teacher and the student and the students themselves.

Given this, indexes were found that suggest that teachers are using techniques that accompany teaching through conversations, participation forums, and chat as much as possible to communicate. This raises the possibility that pandemic teaching may present resources to accompany learning and living together at home. Students are likely to feel more related to their teachers as they interact in a period of social isolation. However, others fail to achieve these considerations. On the other hand, only 23% of the total causal model of digital competencies is explained on the motivational aspect of the teacher teaching profile. This shows a specific rejection of some teachers towards the use of attention strategies, application of individual activities, and the exercise of playful dynamics. What is stated is understood regarding the routes that teachers use since face-to-face social interaction is limited. As shown by some research, digital skills and resources are adapted to the situational context of teaching to the demands of virtual education [15, 30]. However, it is the opposite. As there is the more excellent utility of technologies, a lower score appears in the ability to socialize in person, limiting itself to verbal

interaction of a socio-digital type, whether through computers, cell phones or tablets. Finally, it was found that each of the correlational causality models is significant in the sample participants, considering the Anova indices, being less than 5 and 1% as the minimum error considered for the contrast.

Finally, the resulting values and coefficients, the linear regression of explanation of digital competencies and the teacher teaching profile was

formulated. In this, a greater causality value was presented from the variable digital competencies [$PED = 1.60 + 0.731(DC)$]. Regarding the cognitive dimension [$Cog. = 1.20 + 0.702(DC)$] and the affective dimension [$Afec. = 1.45 + 0.725(DC)$] these presented higher scores in the corresponding regression models. The effects of digital competence on the motivational dimension were lower in the regression model [$Mot. = 1.02 + 0.603(DC)$].

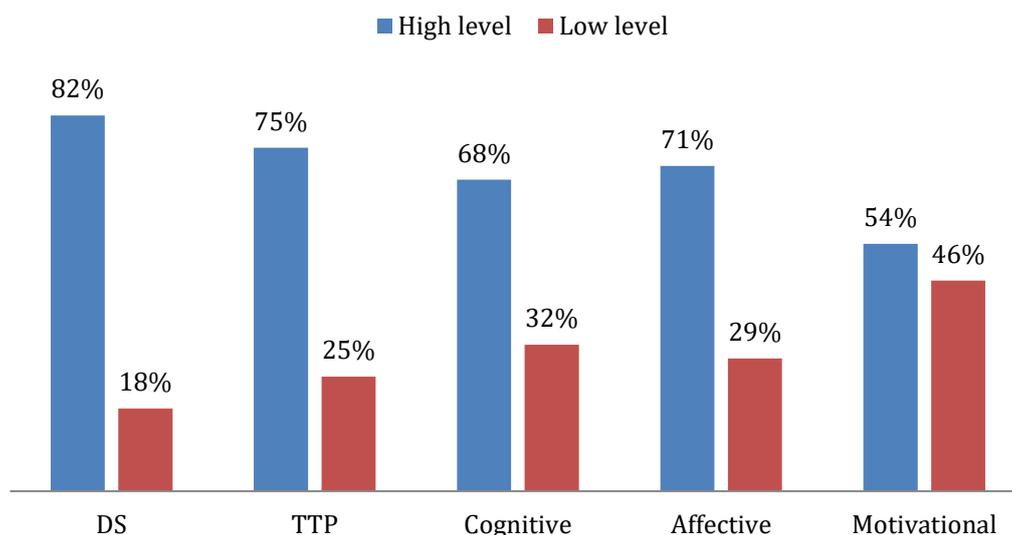


Figure 1 – Percentages in levels in Digital Skills and Teacher Teaching Profile

Notes: DS = Digital Skills, TTP = Teacher Teaching Profile.

The results are shown in Figure 1 support the hypothesis of the influence of digital skills shown by teachers who carry out their pedagogical tasks during the pandemic. Although, more than 80% of the total sample frame have indeed developed those conditions to benefit the skills of their profile (CD). These skills would have been acquired by more than 70% of the total population investigated when executing their teaching (TTP) before the appearance of other variables that demanded the development of the capacities of the technological domain. Although it is not the mission of the article, we could only mention those such as the extrinsic and intrinsic needs that appeared as a requirement of the pandemic: (a) lack of economic resources: personal food, family maintenance, (b) lack of technology: Internet wiring, data from the Internet, computers and multimedia devices; (c) social: affectivity, resilience, coping. It is necessary to include other variables such as resilience, self-regulation and virtual dynamics as part of another investigation that finds relationships in teachers who not only work in the pandemic

context but also, in those from vulnerable contexts, with feasible socioeconomic problems of be studied, to check the contributions of digital skills on their pedagogy or virtual teaching.

CONCLUSIONS

Direct and positive influences of the digital skills of a sample of Basic Education teachers were found on their teaching profile, demonstrated through remote or virtual education development during the pandemic context of 2021. Similarly, the effect was moderate and significant on its cognitive and affective characteristics on the teaching profile. The digital competencies also presented causal effects on the affective characteristics of the said profile; although they were significant, they presented low intensity. This shows that the teachers who exercised their professional careers during the development of the classes adopted new techniques to generate cognitive learning (knowledge and procedural), as well as those of an affective communicational type (verbal,

auditory, visual) since they would be developing new ways to create interactive learning in virtual environments. However, the causal sense and the motivational effects of teaching did not complete the total pedagogical development. Teachers would still have problems developing them in class, and although they are correlated, they do

not receive highly positive effects from their digital competencies.

Conflict of interests

The authors and the institutions involved in the research have no conflicts of interest.

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Exploring Cheminformatic Toolsets for Predicting the Dermal Toxicity of Furanocoumarins

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Abstract. Linear furanocoumarins are skin sensitizers and anticancer agents whose appeal in skincare therapeutics is widely exploited. Owing to the need to predict the biological activities of medicines, this work aimed to investigate the predicted dermal toxicity of linear furanocoumarins through cheminformatic approaches. Therefore, eight major linear furanocoumarins of interest in medicine were selected, and their pharmacophores / toxicophores were modelled and inputted in several databases and cheminformatic toolsets previously described in the literature. Moreover, Principal Components Analysis was performed to allow multivariable comparisons. Results showcased that the first two PCs accounted for 95.48% of all variance in the model, and molecular weight and polar surface showcased a positive correlation to Log P and Log K_p, which may be involved in skin penetration. Moreover, the pharmacophore modelling evidenced superimposition between linear furanocoumarins, ethidium bromide and acridine orange, thereby suggesting that these compounds share similar biological effects, supported by their acknowledged DNA intercalating activities. Therefore, this work showcased the application of various cheminformatic tools to screen the dermal toxicity of chemicals.

Keywords: skin sensitizer; DNA intercalation; secondary metabolite; *in silico*; molecular modelling.

INTRODUCTION

Linear furanocoumarins (LF) or psoralens are secondary plant metabolites whose appeal in therapeutics is widely exploited in folk and standard medicine practices [1, 2, 3]. These compounds are biosynthesized from intermediaries of polyketide and mevalonate pathways, and their chemical structures showcase high variability, being only ever-present the core-moiety furo [3, 2-g] chromen-7-one. Although psoralens may vary in sidechain composition and conformation, these compounds do exhibit similar physico-chemical features due to the substantial electron donor and accepting properties of their central aromatic system, which not only provides them similar electroactivity to several aromatic natural and synthetic compounds [4–10] but also confers photoreactivity to them upon the incidence of

radiation at $\approx 340\text{--}365$ nm (*i.e.* near the end of the ultraviolet spectrum) [1].

Considering the biological activities of LF, the furo [3, 2-g] chromen-7-one core-moiety is acknowledged to bind covalently to some therapeutic targets such as DNA bases [11–13]. This process is regarded as one of the main underlying factors regarding these compounds' therapeutic and toxic effects [3]. Notwithstanding, several authors reported that psoralens interact with many macromolecules in the human organism, which may be involved in their medicinal uses against cancer, psoriasis, vitiligo and other health conditions [2, 14, 15].

According to standard healthcare protocols, LF use in therapeutics is conditioned by either enteral or parenteral administration, being the drug uptake route decided according to the diagnosis

and overall state of the patient [1]. In general terms, LF therapeutics rely on controlled patient exposure to ultraviolet radiation, given the dependence of the clinical outcome to this approach [2]. The patient exposure to ultraviolet light is supported by several authors, who described the remarkable effects of radiation on the thermodynamic feasibility of psoralens binding to DNA and other biomolecules, suggesting that photoactivation is involved in the pharmacodynamics of these compounds [2, 13]. Furthermore, some authors reported the benefits of *in situ* skin administration of LF-containing formulations and ultraviolet exposure to directly treat an affected area [1, 16, 17].

Although LF topical use in medicine is well reported, the extent of their dermal toxicity is still an issue [18, 19]. Despite not being considered outright toxic, these compounds are highly photoreactive, and the still unknown consequences of their phototoxicity upon the incidence of ultraviolet radiation daily is a significant concern to long term treatments [14]. In this sense, the comprehensive investigation of the dermal effects of LF is of particular importance to promote patient safety and ensure treatment efficacy.

Several *in vitro* and *in vivo* assays are commonly used to assess if new formulations are adequate to patient safety standards regarding dermal drug toxicity. Amongst these assays are murine local lymph node assay (LLNA) [20], direct peptide reactivity assay (DPRA) [21], human cell-line activation test (H-CLAT) [22] and KeratinoSens® [23], which provide essential information regarding skin sensitization and dermal toxicity. Albeit reliable and effective in providing information on possible toxic effects and their mechanisms, some of these tests are expensive and require adequate infrastructure to perform [24]. Moreover, most *in vitro* approaches are time and reagent consuming, hindering their application for large output products such as toxicological screenings. In this sense, alternative methods such as cheminformatic investigations could provide complementary information regarding the dermal toxicity of compounds bearing similar chemical structures, such as LF.

Cheminformatic is a relatively new field of research and involves using computational resources to investigate chemical phenomena. This approach uses the physicochemical features of compounds converted to usable data through mono or multidimensional molecular descriptors

[25–28]. This information can be correlated to databases or using data mining and machine learning algorithms to establish predictive models regarding biological activity, pharmacophores [30], docking models [27, 28, 31, 32], and other applications. Notwithstanding, these studies can be performed on free software, *i.e.*, freeware, for most scientific applications. This further increases their appeal as low-cost alternatives to primarily investigate drug biological activities or complementary techniques to guide *in vitro* and *in vivo* assays.

Therefore, because of the therapeutic relevance of LF for skin conditions, and the importance of inciting information regarding their toxicity upon topical use, this work investigates the predicted dermal toxicity of LF thence through cheminformatic approaches. Henceforth several databases and toolsets previously described in the literature were used, and their results were compared.

MATERIALS AND METHODS

LF chemical structures. In this study, 8 LF were selected, namely: bergamottin (BTI), bergapten (BTN), bergaptol (BTO), imperatorin (IMP), isopimpinellin (ISO), psoralen (PSO), trioxalen (TRI) and xanthotoxin (XTN). Moreover, two known DNA intercalating agents were also selected to allow comparisons to be drawn from the pharmacophore modelling, being them acridine orange and ethidium bromide.

Study design and data pre-treatment. This work focused initially to gather information regarding the physicochemical and biological properties of the selected LF. Therefore, Pubchem database was used to retrieve isomeric (when available) or canonical simplified molecular-input line-entry system (SMILES) of each compound [33]. This information was used without further treatment in Molinspiration [34], pkCSM [35], SwissADME [36, 37] and Pred-Skin [38, 39] cheminformatic tools.

Thereafter, the SMILES string of each compound was converted to a three-dimensional rendering of their chemical structures whereupon charges were assigned using Biovia Discovery Studio® software. Manual corrections regarding aromatic bonds were also conducted, and all structures were thoroughly reviewed before further experiments.

All treated structures were added to a single file and submitted to PharmaGist Webserver [40, 41]. The work conditions were: 5 output pharmacophores, PSO as key-molecule and a minimum of 3 features in the predicted model. Furthermore, we employed the following feature weightings in the proposed models: 3.0 for aromatic rings, 1.0 for charge (anion/cation), 1.5 for hydrogen bond (donor/acceptor), 0.3 for hydrophobic. The higher weighting for aromatic rings was selected considering the particularities of LF, given the abundance of π -electrons in their common core-moiety, namely furo [3, 2-g] chromen-7-one.

All figures were rendered and treated using Biovia Discovery Studio® software.

Statistical analysis. To investigate any possible trend in the physicochemical data of the compounds, Principal Component Analysis (PCA) was used [42]. This approach was selected to minimize dataset dimensions basing on variance/correlation matrix. Statistical significance was attributed to $p < 0.05$. All statistical analysis was performed using Origin Pro 9b® software package (Northampton, MA, USA).

RESULTS AND DISCUSSION

The first step of this investigation involved the assessment of the predicted physicochemical properties of each compound. Therefore, pkCSM and Molinspiration databases were used. All information above is showcased in Table 1.

Table 1 – Predicted physicochemical properties of linear furanocoumarin derivatives, namely: BTI, BTN, BTO, IMP, ISO, PSO, TRI and XTN*

	MW**	Log P	Rb**	Hb** acceptor	Hb** donor	SA**	PSA**	LipinskiV**
BTI	338.403	5.6107	6	4	0	145.939	52.59	1
BTN	216.192	2.5478	1	4	0	90.034	52.59	0
BTO	202.165	2.2448	0	4	1	83.350	63.58	0
IMP	270.284	3.8842	3	4	0	114.804	52.59	0
ISO	246.218	2.5564	2	5	0	101.512	61.82	0
PSO	186.166	2.5392	0	3	0	78.555	43.35	0
TRI	228.247	3.4644	0	3	0	97.650	43.35	0
XTN	216.192	2.5478	1	4	0	90.034	52.59	0

Notes: *All data gathered at pkCSM and Molinspiration databases upon imputing the SMILES string of each compound.

**Calculated molecular properties at pkCSM. MW - molecular weight; Rb - rotatable bonds; Hb - hydrogen bond; SA - surface area.

*** Calculated properties at Molinspiration. PSA - polar surface area; LipinskiV - Lipinski rules violations.

Results showcased that all compounds ranged from 186.166 to 338.403 g mol⁻¹ and their Log P ranged from 2.2448 to 5.6107. BTI showcased the highest amount of rotatable bonds, *i.e.*, 6, while BTO, PSO and TRI showcased none. Regarding hydrogen bond formation, most molecules showcased four acceptors and no donors. Concerning surface and polar surface areas, all compounds ranged from 78.555 to 145.939 and from 43.35 to 63.58, respectively. Furthermore, a single Lipinski rule violation was detected for BTI (Table 1).

To investigate the pharmacokinetic properties of LF upon non-invasive cutaneous administration, their predicted skin permeability profiles were assessed by gathering data regarding Log K_p from different databases. Moreover, other predictive pharmacokinetic information was also

gathered, namely: blood-brain barrier permeability (Log BB), one-way flux level corrected with the brain flux value representing the central nervous system permeability (Log PS), and intestinal permeability (IA). Results are showcased in Table 2.

Results show that predicted Log K_p values differ according to the consulted source, though expressed in different dimensions. For example, log K_p from source A (pkCSM) ranged from -2.216 to -2.830 cm h, while from source B (SwissADME), the values ranged from -4.61 to -6.40 cm s. Log BB and log PS, which correlate to the distribution of the drugs through cerebrospinal fluid, ranged from 0.085 to 0.447 and from -1.639 to -2.834, respectively. Furthermore, predicted intestinal absorption for all drugs was above 95%, the highest recorded of 98.386% for ISO (Table 2).

Table 2 – Predicted pharmacokinetic properties of linear furanocoumarin derivatives, namely: BTI, BTN, BTO, IMP, ISO, PSO, TRI and XTN*

	Log K _p A**	Log K _p B***	Log BB**	Log PS**	IA**
BTI	- 2.520	- 4.61	0.085	- 1.840	95.727
BTN	- 2.419	- 6.25	0.202	- 2.830	98.344
BTO	- 2.830	- 6.40	0.380	- 2.803	93.911
IMP	- 2.351	- 5.46	0.176	- 1.905	97.755
ISO	- 2.440	- 6.40	0.123	- 2.834	98.386
PSO	- 2.216	- 6.25	0.410	- 1.714	96.668
TRI	- 2.223	- 5.46	0.447	- 1.639	97.372
XTN	-2.336	- 6.20	0.245	- 2.028	98.341

Notes: *All data gathered at pkCSM and SwissADME databases upon imputing the SMILES string of each compound.

**Calculated properties at pkCSM. Log K_p A – skin permeability (cm h); Log BB – blood-brain barrier permeability; Log PS – constant of one-way flux level corrected with the brain flux value representing the central nervous system permeability; IA – intestinal absorption (%).

***Calculated properties at SwissADME. Log K_p B – skin permeation (cm s).

After gathering data regarding each compound's predicted physicochemical and pharmacokinetic features, molecular weight, Log P, surface and polar surface areas were investigated as independent and continuous variables through PCA

analysis. This was performed to analyze if the reported values showcased any LF skin absorption behaviour trend, which Log K_p represents. Results are showcased as PCA biplot in Figure 1.

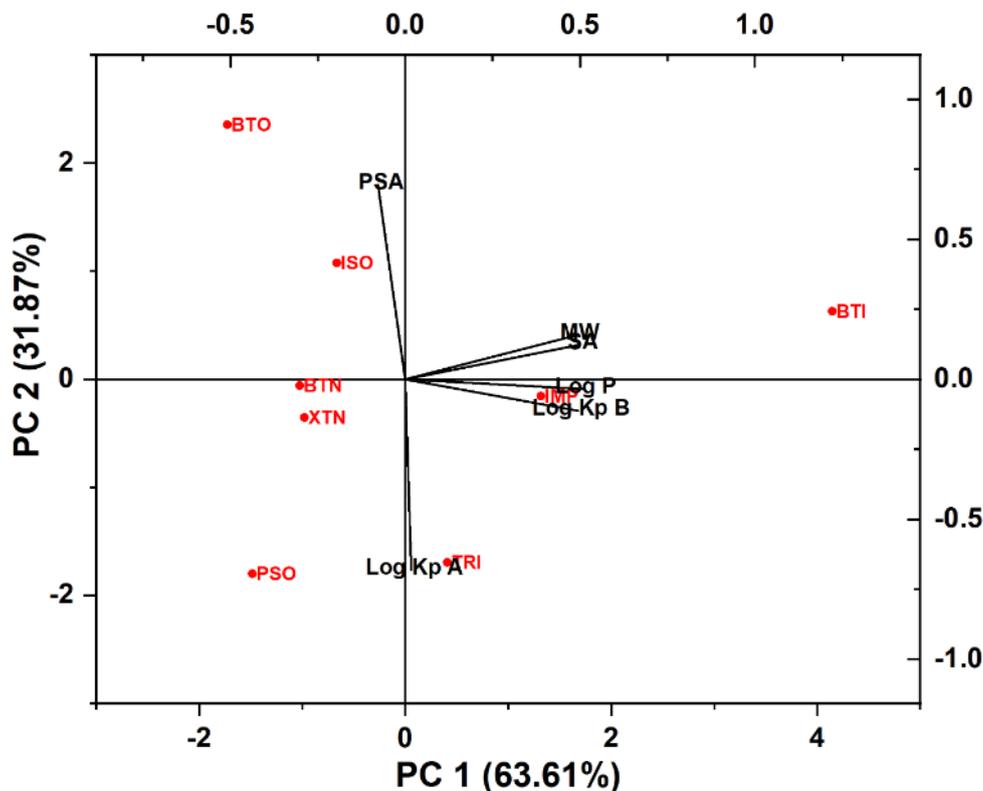


Figure 1

Notes: PCA biplot showcasing scatter plot of LF (red), eigenvector orientation and dimension according to the first two principal components (PC). MW stands for molecular weight; SA stands for the surface area; PSA stands for polar surface area, and Log K_p stands for skin permeability coefficients gathered from different databases (A - pkCSM and B - SwissADME)

Results showcased that the first two principal components explain 95.48 % of the model's variance, suggesting that the results depicted herein are reproducible. Moreover, the first principal component explained 63.61 % of the model variance and promoted the separation of BTI from the other LF datasets, while the second principal component amassed 31.87 % of all variance (Figure 1). Furthermore, the eigenvectors representing molecular weight, surface area, Log K_p B and Log P converged, which was further supported by the correlation matrix of the model. This suggests the positive influence of these fac-

tors towards better skin penetration. In addition, polar surface area and Log K_p A eigenvectors showcased little convergence to the other descriptive vectors. However, their alignment suggests that their datasets may be inversely proportional, further supported in the correlation matrix (Figure 1).

The second step of this study involved the investigation of the predicted skin sensitization effects and toxicity of LF. Therefore, pkCSM and Pred-Skin databases were used, and the results are displayed in Table 3.

Table 3 – Predicted skin sensitization and toxicity of linear furanocoumarin derivatives, namely: BTI, BTN, BTO, IMP, ISO, PSO, TRI and XTN* (%)

	SkinSenA**	SkinSenB***	LLNA***	DPRA***	h-CLAT***	KeratinoSens™	Result***
BTI	-	+80	+60	-60	+60	+80	+60
BTN	-	+80	-50	+60	-50	+80	-50
BTO	-	+80	+70	+70	+70	+80	+60
IMP	-	+80	+60	+60	+60	+90	+60
ISO	-	+70	+50	+60	-50	+80	-60
PSO	-	+80	+60	+60	-50	+100	+50
TRI	-	-50	+50	+70	+60	+60	+80
XTN	-	+80	+60	+60	-50	+100	+50

Notes: *All data gathered at pkCSM and Pred-Skin databases upon imputing the SMILES string of each compound

**Categorical results at pkCSM. SkinSenA – skin sensitization pkCSM.

**Predicted results at Pred-Skin. SkinSenB – skin sensitization Pred-Skin; LLNA – murine local lymph node assay; DPRA – direct peptide reactivity assay; h-CLAT – human cell line activation test; Result – consensus model.

Results showcased that the pkCSM database suggested that no imputed LF would provide skin sensitization, while Pred-Skin suggested that most compounds promote this effect. Although Pred-Skin results are disclosed as categorical, a percentual score is given to support the reliability of the findings. In this sense, most LF was predicted as skin sensitizing agents with mode values of 80%. Moreover, Pred-Skin also provides predictive information about specific tests, namely LLNA; DPRA; h-CLAT and KeratinoSens®, as well as a consensus regarding the skin sensitization model. In this sense, most LF showcased positive results to the predicted data, albeit ranging from 50 to 60% in terms of statistical reliability. Notwithstanding, the consensus model for most LF was positive as skin sensitizer, even though BTN and ISO showcased adverse predicted outcomes (Table 3).

The third step of this investigation was the comparison of all LF chemical structures between themselves. Therefore, a pharmacophore model

was rendered using PSO as a key-molecule. Results are depicted in Figure 2.

Results showcased that the core moiety furo [3,2-g] chromen-7-one was superimposed in the model (Figure 2.A), the distance between the nuclei of furan and central benzene moiety of 2.146 Å. In comparison, the distance between the nuclei of the central benzene and aromatic δ-valerolactone ring was 2.401 Å (Figure 2.B). The distances between the oxygens of the furan and aromatic δ-valerolactone ring were 4.781 Å, the distance between the oxygens in the carboxyl unit of this lactone 2.306 Å (Figure 2.C). In addition, the aromatic nuclei configuration presented an obtuse angle of 177.86° (Figure 2.D).

Considering that DNA intercalators such as ethidium bromide and acridine orange have similar tricyclic structures to LF, a pharmacophore model was rendered using these compounds and having PSO key-molecule. Results are depicted in figure 3.

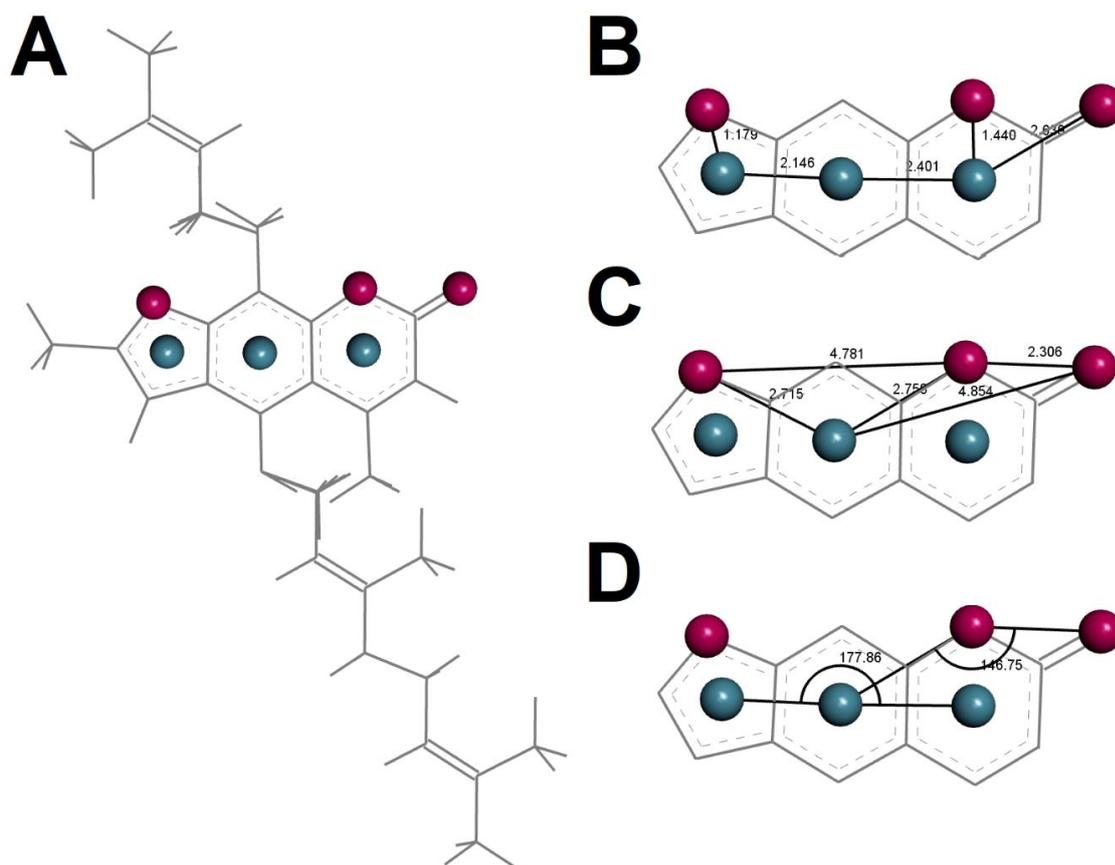


Figure 2

Notes: **A.** Pharmacophoric model of LF using BTI, BTN, BTO, IMP, ISO, PSO, TRI and XTN as inputs. **B, C and D.** Pharmacophoric model of linear furanocoumarins showcasing the distances (Å) and angles between the main contributors to the model. Red spheres represent the main contributors regarding hydrogen bond acceptors, while green spheres represent the main aromatic nuclei contributors

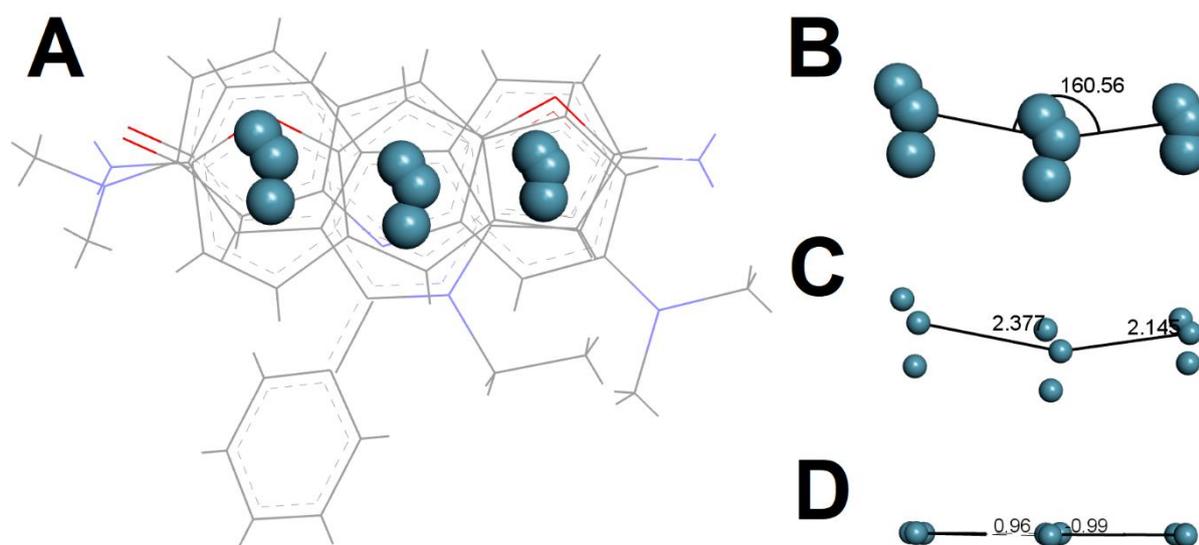


Figure 3

Notes: **A.** Pharmacophoric model using solely psoralen, acridine orange and ethidium bromide as inputs. **B, C and D.** Angles, distances and torsions between the aromatic contributors to the model. Green spheres represent the main aromatic nuclei contributors

Results showcased that the structures did not superimpose and, in the model, comprising only LF, an expected finding (Figure 3.A). The main model contributors were aromatic and positioned in three distinct points, whose angulation was 160.56° (Figure 3.B). Moreover, the external aromatic contributors showcased similar distances to the central one, about 2.261 \AA (Figure 3.C). The contributors were almost planar, showcasing a negligible torsion (Figure 3.D).

Many authors discuss the photoreactivity of LF and its effects upon dermal administration [1, 2, 16]. Although the exact mechanisms underlying these effects are still unclear, literature attributes to the condensed aromatic system of Psoralens pro-oxidant properties [43, 44]. In this sense, some reports supported this interpretation due to the increased formation of reactive oxygen species in the presence of LF and similar compounds [19, 32, 44–46]. Notwithstanding, the furan ring of LF also features thermodynamic feasibility to covalently bind to several biologic receptors, which could explain both the therapeutic and toxic effects of these chemicals [9, 10, 47, 48].

In any case, most authors support that LF physicochemical features are of utmost importance to their effects, being structural characteristics like the condensed aromatic system often hinted as pharmacophores in both natural and synthetic components [29, 49–52], hence particular physicochemical and pharmacological attributes [53–55]. Moreover, this core moiety confers enough lipophilicity to these chemicals to allow their diffusion through the skin and cross other biological barriers such as the blood-brain barrier [56]. In this work, several databases provided similar physicochemical and pharmacokinetic information about LF (Table 1 and 2), being these data also supported by empiric research found in the literature [57–60]. Notwithstanding, the correlation of the findings through PCA showcased trends by other reports, such as the molecular weight, polar surface and Log P and Log K_p B eigenvectors convergence (Figure 1). The correlation between these vectors suggests the relationship between structure weight and electron cloud when their lipophilicity and skin permeability are concerned. Nonetheless, many authors describe how similar compounds' chemical and electronic features may affect their pharmacokinetics *in silico* and *in vivo* investigations [57–59, 61, 62].

Considering the similar core structure shared by LF, the superimposition of their structures in the pharmacophore modelling was no surprise (Figure 2). The overall sp^2 hybridization of all carbons in the furo [3, 2-g] chromen-7-one moiety confers a planar orientation to the core of all LF [63]. This was nonetheless supported by energy minimization approaches based on "Assisted Model Building with Energy Refinement" toolkits [64], as well as *ab initio* investigations of similar compounds using density functional theory calculations [65]. In any case, LF core structure is regarded as a strong electron acceptor and donor, which supports their pro-oxidant behaviour and photoreactivity due to the possibility of electron transitions that may be involved in the biological effects of these compounds [13].

Previous reports evidenced that exposure to UV radiation is of utmost importance to the covalent binding of LF such as PSO to DNA bases, which further supports the involvement of the core moiety in the therapeutic or toxic effect of these chemicals [1, 66]. Moreover, when compared to well-known DNA intercalators ethidium bromide and acridine orange, the furo [3, 2-g] chromen-7-one moiety showcased similar aromatic contributors, as well as geometry, considering the planar orientation of these molecules (Figure 3). An important point must be addressed, though, which relies on the toxicodynamic of DNA intercalators such as the ones herein used for the pharmacophore modelling. Ethidium bromide and acridine orange link to DNA through covalent bonds and intermolecular interactions, being the kinetics and thermodynamics of this phenomenon subject of several investigations [12, 13]. PSO showcases similar behaviour regarding the involvement of both covalent bonds and intermolecular interactions. Considering the structural similarities herein discussed, the furo [3, 2-g] chromen-7-one moiety may be an essential contributor to dermal toxicity.

Regarding the predicted skin sensitization, pkCSM database results differed from the ones provided by Pred-Skin (Table 3). This difference may be attributed to distinct algorithms and weightings employed when imputed information was compiled [35,38,39]. Regardless of the case, Pred-Skin results were sound when compared to empiric investigations, which showcased the skin sensitizing effects of LF by different *in vitro* and *in vivo* approaches [1, 3, 59, 60]. Care must be taken, however, because these results imply by no means that one database is more reliable than

the other, considering the narrow scope of our investigation. Given the plethora of information found in all databases herein consulted, which was sound to empiric data, we suggest all the tools be used complementarily.

CONCLUSIONS

This work investigated the predicted dermal toxicity of LF through chemoinformatic approaches. Results showcased that the molecular descriptor data can be used to predict the dermal toxicity of LF through *in silico* toolsets, which therefore shed light on the use of computational methods

to predict the clinical outcomes of skin exposure to these compounds.

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Conflict of interest

The authors declare that there is no conflict of interest.

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Old Wine in A New Bottle: A Mediamorphosis Approach to Realising Nigerian Newspaper Potentials in an Online Era

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Abstract. Information plays a crucial role in every society. The media of every society is responsible for transmitting assorted information to a wide range of diverse audiences through multiple channels, including newspapers, magazines, radio, television and of course, the new media (Internet). In a world where the Internet is becoming the fastest growing medium, technologies like computers and smartphones now enable people to access online news sites to read stories and share with others. Printed newspapers, particularly in Nigeria, have managed to thrive over the years, despite projections of its extinction by some communication experts. Using the Mediamorphosis theory as a base, this study takes readers on a journey to understanding the survival strategies employed by older mediums like the printed newspapers to weather the new media storm. Complimentarily, opinions of purposively selected respondents from Zaria, Kaduna state (n=115) were analysed to determine the motives behind their preference of either online or hardcopy papers. Findings supported the view that in many settings still, there will be those who prefer to read the news the old way and that the new media, as at this time, mainly serve as a functional complement and not an outright replacement to traditional newspapers. The study recommends fact-checking, better marketing as strategies to bridge a credibility gap reported by respondents to exist in the use of both mediums.

Keywords: mediamorphosis; media convergence; newspaper readership; Nigeria.

INTRODUCTION

In a world where the Internet is becoming the fastest growing medium due to the convergence of computers and other telephony technologies, the mode of accessing news and information is experiencing a significant shift. Technological advancements have allowed people easy access to the news on multiple devices such as computers, smartphones, tablets, to mention but a few. These advancements have in one way or the other, influenced the patronage of printed newspapers.

Historically, the idea to record daily happenings or occurrences can be traced back to Caesar's reign in ancient Rome. At the time, stories of the day were written on a tablet and posted on a wall at the end of each senate meeting. This record or publication was called *Acta Diurna*. Since the information was posted on one wall (Baran, 1999) as cited in [20] informs no reliable measure of its total readership. Those who desired to read about the announcements of the day had to all converge at that particular wall where it was posted. It wasn't until the year 1620 that the one-page

publication called the *Corantos* was published to carry the day's events in north-western Europe.

Furthermore, the 19th-century industrial revolution saw the newspaper industry's growth and expansion as copies changed style, structure, depth of coverage and reach. Urbanisation as a result of the industrial revolution equally contributed to literacy rate and widespread readership and patronage. Among these early papers was the *New York Sun* launched in 1833 by Benjamin Day, the *New York Times* launched in 1835 by James Gordon Bennett and the *New York Tribune* by Horace Greeley in 1841, thus marking the early days of the modern press.

In Nigeria, newspapers can be said to have begun in 1859. The first publication is credited to Rev. Henry Townsend, a European missionary who published the *Iwe Irohin* in Abeokuta, Nigeria. The full name of the publication was *Ìwé Ìròhìn fún àwọn ará Ègbá àti Yorùbá* – simply meaning newspaper for the [2]. The author [20] writes that the success of *Iwe Irohin* paved way for other newspapers to follow, such as the *Anglo African*

Newspaper published between 1863 to 1865 by Robert Campbell, *The Nigeria Pioneer* published by Kitoye Ajasa between 1914-1937, the *African Messenger* by Ernest Ikoli in 1921, the *West African Pilot* by Dr Nnamdi Azikiwe in 1937. Today, over 250 newspapers are in circulation in Nigeria, including Vanguard, The Guardian, The Punch, The Sun, ThisDay, The Nation etc [20].

With the invention of the World Wide Web by Tim Berners-Lee in 1989, the navigation and use of graphics on the Internet meant that the Internet could begin to function as a medium for mass communication. The Internet has, over the years, provided users multiple sources to access and disseminate information online through web pages such as websites, blogs, wikis etc. The author [16] stated some features of the Internet which, accordingly, are part of the reasons that give online newspapers an edge over their print counterparts. They include interactive potential, low degree of regulation, interconnectivity, ubiquity, low cost, and instantaneity, among others. He added that online newspapers could reduce the cost of production, especially when compared with their print counterparts. It has reduced the cost of publishing, overcome the constraint of distribution and circulation, gives instant interaction with the reader and made convergence possible. Now, readers could not only read newspapers but could as well listen and watch their contents at once. Internet sites supplement traditional "hard copy" sources in various ways, but they also provide bibliographic access to "hard copy" sources. We may now access online newspapers worldwide, enabling us to find information or track down an elusive title or reference. Once, we would have to dig into various guides of periodicals [24].

These advancements have, in one way or the other, influenced the readership habits of news consumers. While many researchers seem to approach the online-hardcopy discourse from a comparative perspective, this study approaches it from a collaborative view to chart the interdependent and interrelated interaction between both mediums.

Literature review

The author [3] observed that young people are future readers of the newspaper, but lure them to read them was a problem. Online news sites, according to him, might be the solution. Readership of online newspapers is an information sourcing

and sharing activity [6]. The author (Pavlikas, 2001) as cited in [18] stated that in the rapidly changing world of online publishing, where newspapers around the world increasingly operate web versions of their hardcopy, more and more people with a means of connecting to networked computers will turn to the Internet for news, the number of newspapers online would increase substantially.

The researcher [10] found that newspapers in Italy have gone online to attract young and adult audiences who refuse to spend money on hardcopy. Authors [14] reaffirm that the amount of time spent watching television, talking on the telephone, and reading hard copy newspapers decreases due to using online media. According to [25], online news outlets have slowly begun to usurp the place that older media occupied, which was the primary source of information. Hence, with the advent of this new technology, print newspaper circulation and readership are significantly declining every day [25]. Studies continue to show a decline in print newspaper readership even in developed countries of Europe and North America that many newspapers have either ceased publication entirely or shifted to online-only editions [11]. The author [7] thinks that some have attributed this overall decline to increased mobility of Americans, the increase in single-person households, more expensive subscription and per-copy prices, a general decline in the literacy of young people and competition from other media, especially the Internet. According to [16] there has been a gradual worldwide decline in newspaper readership over the last decade, despite the increase in literacy and with the rise of the Internet probably playing some part. According to a study by [22], the share of Americans who prefer to get their news online is growing. In 2018, about 34% of U.S. adults said they preferred to get news online, whether through websites, apps or social media, an increase to the 28% that said the same in 2016. In Nigeria, similar studies such as [23] which examined the level of online newspaper reading in Nigeria, found that the majority (78%) of Nigerians read online newspapers, concluding that online newspaper is gaining acceptability among Nigerians.

In contrast to the above positions is (Abplanalp, 2005) cited in [24] who found that public's commitment to the print format seems to be stronger than expected; based on a survey he conducted to study print competitiveness in the marketplace. In a study by [17], students asked about the San

Jose Mercury News published online were reported to have said "the electronic newspaper was unappealing to browse leisurely, inappropriate for all news material, uncomfortable to travel through, not preferable over traditional newspaper and more difficult to read than a traditional newspaper" [17]. Collaboratively, the Online Publishers Association in 2004 conducted similar research on 25,852 visitors of forty-one main U.S. news sites and found that in a 2-to-1 margin, online media were found to be deemed less pleasing, less friendly, and less pleasurable than offline media [21]. Their findings align with that of [21], whose respondents equally preferred print newspaper and rated it higher than other media platforms.

Weighing in from a different perspective is (Biggs, 2006) as cited in [24] who argued that online publication isn't about old media versus new media; it's about cheap media versus expensive media. Biggs write-ups look at a newspaper from the cost perspective to discuss both online and hardcopy. From a media interdependence point of view, (Rosengren, & Windahl, 1989; Stempel et al., 2000) as cited in [24] suggested that online media are a "functional supplement to traditional media instead of a replacement or displacement mechanism."

These contradictory findings have given rise to diverse opinions about the future of new and conventional newspapers, and this study attempts to shed light on the questions surrounding this issue by exploring the link between traditional newspapers and the use of online news platforms, as explained in the Fiddler's mediamorphosis theory of communication.

Background of Mediamorphosis Theory. Mediamorphosis' was coined by Roger Fiddler in 1990 but propounded as a theory in 1997 by the same scholar. Extensive explanation of the theory is found in [8]. According to [8], mediamorphosis is "the transformation of communication media, usually brought about by the complex interplay of perceived needs, competitive and political pressures, and social and technological innovation". This term, also known as 'digital metamorphosis' is the transformation from oral literature to digital. According to [8], the mass media is constantly changing, but contextual and critical analysis of the change was yet to be done. The theory is aimed at providing a comprehensive framework that charts the evolution and interaction between media forms.

Related Assumptions of the Theory:

1. New media do not arise instantaneously or are devoid of external influence. Instead, new media are linked to old ones. This means that every news platform must have evolved from a pre-existing medium of communication. For instance, E-editions of newspapers are simply duplications of the printed copies in digital format. The idea behind these printed copies could also be traced back to the handwritten newspaper *Acta Diurna*.
2. When new media emerge, the old ones do not die; they continue to evolve, adapt, and retain the traits from the domain they evolved. Simply put, new media emerge gradually from the metamorphosis of the old media.
3. Rather than doing away with older forms, new forms of communication have instead diverged and added to the media mix, and this leads to an increase in media consumption

From the stated assumptions, we can gather that the theory under discussion encourages examining all media forms as members of an interdependent system. Thus, there is a relationship that exists among the past, present and evolving forms.

Strengths of the Theory: 1) Mediamorphosis explains how new and old media come together to enhance effective communication. For example, social media platforms like Twitter, Facebook and YouTube influence the development of existing forms such as newspapers and books. 2) The theory encourages old media to adapt to new trends.

Weaknesses and Criticisms of the Theory: 1) Delayed adoption: To some degree, mass user migration contradicts Fiddler's 20-30 years adoption principle. Fiddler has predicted that for a new media to be adopted by the mass audience, it must take at least 20-30 years. However, this prediction is faulty because the present acceleration for adopting online social media outstrips the 20-30-year time frame theorised by Fiddler for widespread application and commercialisation success of new technology. 2) Undefined terms: The theory does not identify the new media and what is referred to as the old. What may be considered new today might be old tomorrow.

Significance of Mediamorphosis Theory to Online/Hard-copy Interplay and Patronage.

The propounder of the theory, Roger Fiddler, stated that there could be a unified way of thinking about the technological evolution of communication media by studying the communication

media as a whole. For instance, centuries ago, there was nothing like the mass media as we have it today. Still, due to technological development, print media came into being, followed by electronic media (radio, television) then Internet. The new media emerged to update and upgrade the old media. In this sense, we can argue that the online news sites mainly improve upon the hard copied newspapers that were previously in vogue. The new media did not arise spontaneously or independently but due to gradual improvements on either an old medium or its idea. This historical pattern of change within the communication system prompted Fiddler to state that the emergence of a new medium or technology does not mean the end or death of an existing old medium. This assertion is true because mainstream media still enjoys heavy patronage globally despite the emergence of podcasts, blogs, YouTube, and other live audio-visual streaming platforms.

Compared with the Darwinian theory of evolution, Fiddler explains that new media forms emerge to meet the changing environmental needs. Still, the new ones influence the older ones, which tends to survive. For example, the decline in hardcopy newspaper patronage due to the advent of the Internet prompted some experts to predict the death of the newspaper industry. Yet, in contrast, newspapers adapted to internet technology. Likewise, print media (newspapers, magazines, books and so on) have made significant transformations over the past few years due to new technologies that allow for media convergence. With the new media (Internet), we can watch online TV news; listen to the radio, read online versions of newspapers, books and magazines. This is because every personal computer or mobile smartphone offers users the ability to blend texts and still images into audio and video clips and the opportunity to conveniently delve into the global network and vast access stores of textual and audio-visual information.

In the same way that it takes a long time for an animal to be fully matured, the development of the media takes time. Communication technologies would not have been possible if the birth of each new medium had resulted in the death of the old medium.

What print publishers are doing to stay in business? Several studies have been put forth to discuss some survival models employed by publishers to remain in business. A 2006 survey report published by the World Association of

Newspapers and News Publishers (WAN-IFRA) shows other newspaper publishers' business models. They include:

Outsourcing: Their findings indicate that many publishers now outsource nonstrategic activities such as telephone marketing, pre-press, printing, transport, information technology, catering, and security, leaving out only their editorial activities and advert sales.

Cooperation Activities: In efforts to reduce production, this report indicated that most publishers indicated that they were engaged in more than one type of cooperation activity with other media partners. Such as Cooperation in advertising, content generation and distribution, printing, content and technology investments.

Mergers and Acquisitions: The report also indicated that publishers were involved in merger and acquisition activities.

Furthermore, economic scholar [15] equally highlighted the following survival strategies adopted by publishers to include:

Information Technology: The possibility for reusability of information across customers has increased due to Information Technology. This allows publishers to offer a range of products and services to their customers, thus, facilitating some competitive advantage. In addition, new technologies such as the Internet and online subscription services make it possible to combine old and new media into one product with an additional element that was missing in the earlier markets; interactivity. Interactivity allows for greater personalisation of relationships between customers and publishers. Among the services publishers could offer to include interactive forums, searchable news archives, online transactions, up-to-the-minute information, and audio/video content presentations. However, the author [15] noted that to use these technologies in a competitive way, substantial investments in capital and expertise are required in most cases.

Marketing and reputation: The author [15] found that rigorous marketing enlarges the readership of newspapers as it helps create a brand image and loyalty of customers. Image and loyalty are related to the notion of 'reputation' [15]. Building up a good business reputation is through consistent policy, marketing, and highly qualified products and services. News deals with facts. Therefore, newspaper publishing companies offer products (news contents) that may make or mar their

reputation and reliability. Therefore accuracy, objectivity and balance play critical roles in building a good brand reputation. Furthermore, publishers get to leverage or capitalise on their reputation as bargaining power to negotiate lower prices for their production inputs or diversify into several unrelated and related businesses.

Innovations: Innovation gives companies temporally monopolies because they have no competitors on the same playing field until a company duplicates or betters the innovations or products. These temporal innovations are essential for the publishing companies because they can protect or increase the market share. For instance, they are diversifying into magazine production and other print products such as booklets, brochures, business cards, calendars, catalogues, cards, envelopes, flyers, tags, labels, notepads, posters, banners, diaries, jotters, etc.

Authors [13] presented some currently obtainable business models that modern-day newspaper publishers around the world adapt to weather the new media storm. They include:

Advertising e-business model: Today, advertisements such as banner ads or sponsored links are featured on many news websites. This model is most effective when the amount of traffic to the website is large or specialised.

Subscription model & utility model: Newspaper publishers charge certain fees to subscribe to content with the subscription model. Options to read-only or download a part or all of the content could be made subject to the amount paid.

Community Business Model: Newspaper publishers could go on to create discussion forums for their readers. According to [13], since the community model is based on user loyalty, users develop deeper relationships with current readers, potential readers, and commercial customers who are emotionally invested in the online community. With this model, revenue can be based on selling ancillary products and services, or revenue could be tied to contextual advertising and subscription for premium services [13].

Brokerage: The scholar's [13] propose that Industries such as print publishing industries could adopt Rappa's brokerage model for web-based enterprises, where a newspaper, by capitalising on its archives, equipment, and brand image, could act as a broker bringing buyers and sellers together and facilitating transactions.

In addition to all the above, authors [13] further proposed how publishers can further harness native and new e-commerce models. They include finding ways to monetise archive information beyond users paying for access to old articles, developing profile habits and interests based on IP address of users and offer to advertisers for direct marketing, create paid tools useful to readers business needs such as simple accounting software and financial budgeting tools, offer online video rental services, music downloads, and the likes. Lastly, provide website hosting and other internet services for businesses; allow for the upload of press releases to the particular business area of site and charge companies a fee for service [13].

These strategies and more show why the newspaper business may not be going extinct as many have projected.

METHODOLOGY

For broader insights into this topic, this study purposively selected 115 residents of the Samaru community in Zaria, Kaduna state. It adopted the survey research design to systematically sample respondents' opinions who consume online or hardcopy news stories and are willing to partake in the survey. Validity was ensured by subjecting the questionnaire instrument used to review and vetting by other researchers. Descriptive statistics involving tables, charts, percentage distributions and frequency patterns are used to present the outcome of the responses from the questionnaires.

RESULTS AND DISCUSSION

Table 1 – Bio-data presentation

Variable	Frequency	%
Gender	115	100.0
Male	73	63.5
Female	42	36.5
Age	115	100.0
15-24	16	14.0
25-34	6	5.0
35-44	31	27.0
45-54	34	30.0
55-64	24	20.0
65& above	4	3.5
Education	115	100.0
Diploma	22	19.1

Variable	Frequency	%
HND/BSC	42	36.5
Postgraduate	51	44.3
Marital Status	115	100.0
Single	9	7.8
Married	102	88.7
Divorced	4	3.5
Do you read news stories?	115	100.0
Yes	115	100.0
No	0	0
Major News Source / Preference	115	100.0
Online	66	57.4
Hard-copy	49	42.6

Data from the above table indicates that there are more males (63.5%) than female (36.5%) respondents for this study, and the highest of all the age groups are 35-44(27%) and 45-54 (30%) respectively. Virtually all the respondents are educated, with the majority (44%) being postgraduate degree holders. The data also indicates that 66 respondents (57.4%) prefer accessing and reading news online instead of the 49 others (42.6%) who prefer Hard-copy. This reaffirms the study by (Pavlik, 2001) as cited in [18], which states that in the rapidly changing world of online journalism,

where newspapers around the world increasingly operate web versions of their hardcopy, more and more people with a means of connecting to networked computers turn to the Internet for news. Almost every Nigerian possesses mobile phones, laptops, iPad and other devices that enable internet browsing.

Careful analysis of the retrieved questionnaires indicated that young and mid-aged people within the age range of 25-45 years constitute the significant consumers of online news stories, while those above 45 years of age prefer hardcopy. This may be attributed to the high rate of sophisticated Internet enabling devices that the young and mid-aged generations make use of.

The findings corroborate [10], who stated that newspapers go online to attract young and adult audiences who refuse to spend money on the hardcopy.

What reasons are behind users' preference and patronage of online news?

There are several obvious reasons why newsreaders may prefer to access and read news online. Our 66 respondents (57.4%) who indicated a preference for online news were asked to state why. The below figure 1 contains their responses:

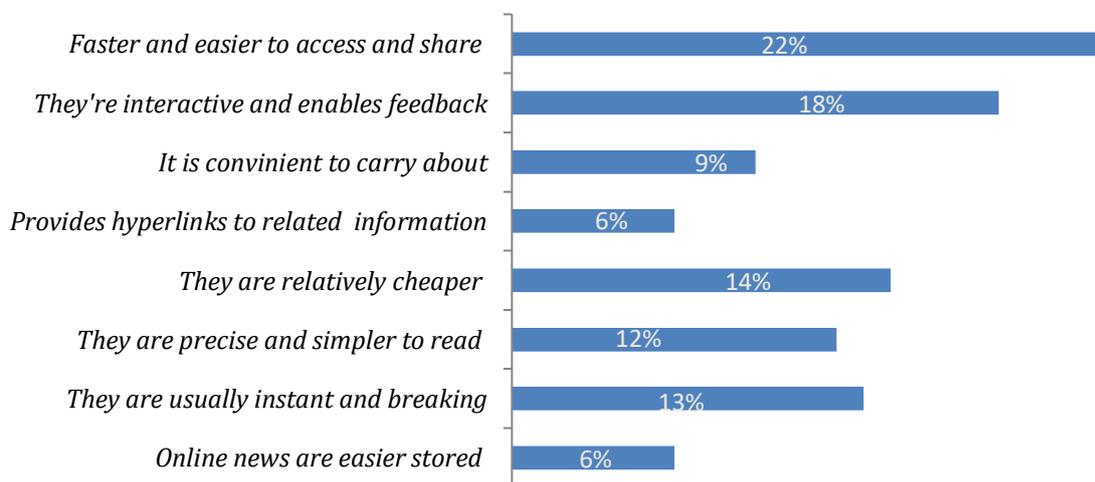


Figure 1

As can be seen above, some 15 respondents (22%) consider and read online news because of its ease of access, while 12 (18%) prefers online news because it is interactive and enables feedback. This is in line with (Khan, 1999) cited in [24] who argues that given the increasing use of internet technology globally, the development of online news as a new way of mass communication

has introduced a new, efficient and fast way of disseminating and accessing news stories. This finding also confirms that of corroborates the study by [9]. Furthermore, online news media is preferred to the traditional newspaper because it is interactive and provides searchable features and the ability to cross-reference through hyper-linking and provides other multimedia features.

Also, from the table, six respondents (9%) prefer online news due to its convenience, while four others (6.1%) prefer it because it provides links to other information. According to a study by [22], Online news is valued most for headlines and convenience, not detailed, in-depth reporting. This means that while hardcopy papers are preferred because of their in-depth and detailed reports, online news is valued for its ability to provide breaking news headlines, thus corroborating the eight respondents (13%) who prefer online news simply because it is instant and breaking.

Another vital factor that influences the decision to access the Internet for news is cost. This is why some nine respondents (13.6%) prefer online news because it is relatively cheap to get. This very much tallies with the findings of Biggs (2006), who views that online publication isn't

about old media versus new media; it's about cheap media versus expensive media. For example, in Nigeria, the price of a single newspaper ranges from N200 to N500 depending on the location it is being sold, while an internet data bundle of N100 on a mobile phone is sufficient to read news stories from at least ten different news websites.

What are the reasons behind users' preference and patronage of hardcopy news?

Just as some prefer online copies, some people still prefer to read printed papers for various reasons, chief among them reasons being accuracy and credibility. Therefore, our respondents who prefer to read hardcopy (42.6%) were asked to state the reason for their choice. The below figure 2 contains the responses they gave:

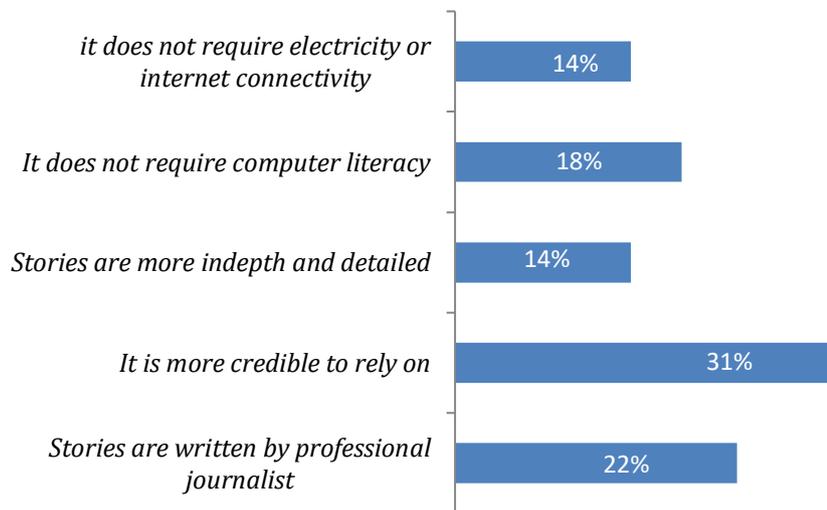


Figure 2

As can be seen in figure 2 above, 11 respondents (22%) prefer hardcopy because it is more stories therein are in most cases prepared by certified journalists who investigate, gather and write their stories in conformity with the ethical code of conduct of their profession as well as the editorial policies of their organisations. This may not be the case for some online news sites, as ill-trained or unprofessional news writers manage some. Also, from the figure, 15 others (30.6%) prefer it because it is more credible to rely on. This is particularly true because the news stories that emanate from hardcopy reflect the reputation and integrity of the producing firms, which in most cases are firms licensed and registered by the country's laws. Furthermore, some seven respondents (14.3%) prefer hardcopy because its stories are

more in-depth and detailed, nine others (18.4%) prefer it because reading newspapers does not require computer literacy. In comparison, the remaining seven respondents (14.3%) prefer it because reading newspapers does not require electricity or internet connectivity. Given the epileptic power situation of Nigeria coupled with poor internet networks in many communities in Nigeria, it becomes understandable that some will prefer hardcopy papers that don't require the availability of any of those above to be used.

Will hardcopy papers go extinct or be replaced by online news sites?

Although 57.4% of the respondent for this study responded in favour of online news, there is still a substantial (42%) who prefer traditional newspapers. Of course, this implies in any setting; still,

there will always be those that value hardcopy more. Thus, the online news as we have it today is not yet a replacement for traditional newspapers; instead, they play complementing roles. Corroborating this claim is [4], who wrote that "online media are a functional supplement to traditional media instead of a replacement or displacement mechanism". Also, according to tenets of the Mediamorphosis theory used as a framework for this study, when new media emerge, the old ones do not die; they continue to evolve and adapt and retain the traits from the domain from which they evolved. Therefore, following some of the survival strategies by publishers earlier discussed, traditional publishers could always consider outsourcing, investment in information technology, rigorous marketing, expansion into other print production and embracement of new e-commerce models as measures to stay in business.

CONCLUSIONS

The need to communicate has brought in several innovative news formats and devices to access them. Online news platforms can be classified among these innovative means, and it has played a part in shaping human reality. According to Marshall McLuhan, we shape our tools, and our tools shape us. This implies that man designed these technologies, such as the Internet and its digital devices. Now the usage of these technologies has over time shaped and influenced our manner of

doing things. With the advent of the Internet, online news has become a vital communication instrument to society. However, this research work has shown that although online news has affected the patronage of traditional newspapers, there are various ways in which publishers can harness the new media technologies to maintain their brand and relevance and maximise profit.

This study will not be complete without providing some measures that publishers could adopt as strategies to improve readership.

1. Online news editors should ensure contents appeal not only to the younger readers but to everyone in general. The age-preference gap as observed in this study must be bridged.
2. One of the primary motivations for readership online is because news is updated faster. Therefore, all and not just some of the hardcopy news publishers must own and operate a complimentary online news website and treat it as part and parcel of their newspaper outfit to limit themselves to daily publications only.
3. A holistic approach should be taken towards the quality of news reportage and services rendered to readers.
4. Reading online is very dynamic. Therefore, a regular audience survey must be carried out to ascertain the different target audiences' changes to be implemented.

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Значення вивчення особливостей італійського філософського постмодернізму для загальної характеристики цього явища

The Significance of Studying the Features of Italian Philosophical Postmodernism for General Characteristics of this Phenomenon

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Анотація. У статті розкривають результати дослідження авторки щодо характерних культурологічних та філософських особливостей постмодернізму в Італії. Серед виразних особливостей італійського постмодернізму авторка називає суперечливе ставлення до минулого, суміш стилів і жанрів, впровадження концепції «ослабленого мислення». На основі цих рис доводяться такі твердження: (а) сучасне вивчення явища постмодернізму повинно враховувати його культурно-регіональні особливості; (б) врахування таких особливостей дозволяє збагатити наші уявлення про постмодернізм та доповнити новими рисами його загальні характеристики.

Детальне вивчення постмодернізму в Італії та за допомогою компаративного аналізу із дослідженнями цього явища в інших країнах, дало підставу для твердження, що географічне фактор має важливий вплив на формування тих чи інших рис явища. Адже кожна країна в той чи інший відрізок часу переживає свою власну унікальну історію, і як мінімум це має свій вплив на формування соціальної свідомості, а отже і культурологічного підґрунтя у сприйнятті світу. І те, що постмодернізм вже завершився, як активно явище на соціокультурній арені, тільки допомагає його холодному та детальному вивченню. Тільки зараз науковці можуть виокремити деталі, які не давались в знаки під час піку популярності постмодернізму. Вивчення постмодернізму як цільного, неподільного явища, яке проявляється всюди однаково призвело до певних помилок та пропусків важливих деталей. Підхід виокремлення із загального, в нашому випадку розгляд постмодернізму через призму конкретної країни та її історії та культури, дає змогу подивитись на це явище з іншої сторони і побачити нові науково-філософські можливості.

Ключові слова: культурно-регіональні особливості; «ослаблене мислення»; полікультурне явище; постмодернізм; постмодерн.

Abstract. The article reveals the results of the author's research on the characteristic culturological and philosophical features of postmodernism in Italy. Among the expressive features of Italian postmodernism, the author names a contradictory attitude to the past, a mixture of styles and genres, introducing the concept of "weakened thinking". Based on these features, the following statements are made: (a) the modern study of the phenomenon of postmodernism should take into account its cultural and regional features; (b) taking into account such features allow us to enrich our understanding of postmodernism and add new features to its general characteristics.

A detailed study of postmodernism in Italy and comparative analysis of studies of this phenomenon in other countries gave rise to the assertion that geographical factor has an important influence on the formation of certain features of the phenomenon. As every country at one period or other lives through its unique history, it impacts social consciousness formation, hence the cultural basis for the

world's perception. And the fact that postmodernism doesn't exist anymore as an active phenomenon in the socio-cultural arena only helps its cold and detailed study. It's only now that scientists can single out the details that were not paid attention to during the peak of postmodernism popularity. The study of postmodernism as a whole, indivisible phenomenon, manifested everywhere in the same way, has led to specific errors and omission of important details. In our case, the approach of separation from the general, the consideration of postmodernism through the prism of a particular country and its history and culture, allows us to look at this phenomenon from another angle and see new scientific and philosophical opportunities.

Keywords: cultural-regional features; "weakened thinking"; multicultural phenomenon; postmodernism; postmodern.

ВСТУП

Феномен постмодернізму привернув до себе увагу та набув характеру предмету активних обговорень в науці та суспільній думці наприкінці ХХ ст. [1, 2]. Саме в цей час вже було неможливим не помічати цього явища, оскільки воно проявилось у різних сферах суспільного життя та у різних версіях. Важливо також відзначити й те, що додаток «пост» в цей час також набуває застосування у контекстах різних сфер і напрямів суспільної діяльності: у філософії, наприклад, ще із 70-х років минулого століття вживався термін «постпозитивізм», у культурології фігурує термін «постструктуралізм», у наукознавстві почав запроваджуватись термін «постнекласична наука», інколи мова йде також і про постнекласичні прояви культури та політики. До того ж виступи постмодерністів у філософії та мистецтві інколи були настільки вражаючими та несподіваними, що мимоволі привертали до себе увагу, а доволі велика частина діячів цих сфер суспільного життя виступили проти всіляких «пост», вважаючи носіїв таких поглядів навіть морально сумнівними особами. В наш час постмодернізм оцінюють більш виважено, проте це не значить, що вже немає його невивчених проявів. Зокрема, варто звернути увагу на те, що поки що переважно перебувають поза увагою дослідників культурно-регіональні прояви постмодернізму та те, як вони можуть змінювати і доповнювати наші загальні уявлення про це явище. Тому мета даної статті окреслюється як виявлення значення вивчення особливостей італійського постмодернізму для загального розуміння цього соціально-культурного явища.

РЕЗУЛЬТАТИ ДОСЛІДЖЕННЯ

Для людства у загальному досвіді історії кінець ХХ століття у багатьох відношеннях постав особливим, адже у життя справжнім буревієм увірвалися нова техніка і нові технології, всесвітня Інтернет-мережа, запровадження результатів розроблення штучного інтелекту, виникнення державних систем тотального контролю за людьми, поширення явищ глобалізації та на їх тлі – антиглобалізму та націоналізму (інколи вживають термін національний егоїзм), а також різного роду радикальних суспільних рухів. Таке явище як Інтернет взагалі поступово стало невід'ємною частиною повсякденного життя кожної людини, що особливо виразно проявилось за умов пандемії коронавірусу. На черзі – явище інтелектуалізації роботизованої техніки, навіть спроб у межах ідей трансгуманізму розробляти проекти гібридної людини. Людство, по суті, створює собі ще одне «обличчя», нове життя у комунікативних мережах та самоорганізованих сферах життєдіяльності. Звісно, такі наслідки науково-технічного прогресу не могли не проявити себе в культурі, мистецтві, філософії та літературі.

У той же час не варто спрощувати строкатість загальної етнічної, національної, державної та культурної картини сучасного світу. На тлі означених новацій життя існують країни та цілі регіони Землі із традиційним укладом життя, куди зазначені революційні новації або взагалі не проникли, або проникли дуже в обмежених масштабах та суттєво не вплинули на спосіб життя і менталітет. До того ж, як було зазначено, явища інформатизації та глобалізації супроводжуються певними проявами національного ізоляціонізму та націоналізму правого ухилу. Певні відцентрові тенденції проявились, зокрема, і у взаєминах країн Європейського союзу.

На наш погляд, зазначені явища значною мірою активізували звернення різних країн та народів до своїх *історичних традицій*. Чи можемо ми у дослідженні явища постмодернізму проігнорувати цілком очевидні суперечливі прояви сучасності? – Думається, що ні, більше того, на наше переконання, методологія постнекласичної науки вимагає розглядати явища дійсності не лише у контексті узагальнень та генералізацій, а й в їх індивідуалізованих проявах [3, с. 102–105]. Звернення до методологічних досліджень засвідчує, що сучасна наукова картина світу тяжіє до того, щоб постати *моно-плюралістичною*. Тому ми вважаємо, що:

1. В силу відмінностей менталітету в різних культурних регіонах, і тим паче на різних континентах, постмодернізм, в залежності від місця розповсюдження, має свої *особливості*. Ми вважаємо, що виявлення специфічних особливостей у різних типах постмодернізму дозволить побачити це явище *об'ємно, різносторонньо та різновекторно*, але у той же час дозволить яскравіше окреслити його загальні суттєві риси.
2. Однією із прогалин у вже існуючих дослідженнях постмодернізму є вивчення його у загальному плані, поза належним та прискіпливим аналізом його *культурних та регіональних особливостей*.
3. Вивчення культурно-регіональних та державних відмінностей у наголосах та проявах постмодернізму неодмінно *збагатить* наше загальне розуміння цього явища, а також дозволить виявити підстави для його різноманітних, проте виправданих трактувань.
4. Нарешті, наше заглиблення в історичні корені постмодернізму в різних країнах та регіонах, в особливості декларування ним своїх основоположень та переконань повинно також враховувати факт, що на ньому наполягав сам «постмодернізм»: у сучасній культурі *зникають жорсткі кордони* між різними сферами соціально-культурної діяльності та різними жанрами інтелектуальної творчості. Тому практично неможливо при розгляді ідей та особливостей філософського постмодернізму ізолюватись від мистецтва, літератури, публіцистики, соціально-культурної творчості сучасності. Такий відокремлений, сингулярний аналіз філософського постмодернізму видається нам методологічно невиправданим.

Важливою особливістю постмодернізму є те, що він залежить від місця свого «існування», тобто зазнає впливів зі сторони культурно-історичних та регіональних традицій. Окрім стандартних рис, які приписують особливостям постмодернізму, він також має такі індивідуальні риси, які притаманні ідеям постмодернізму в залежності від країни розвитку, чи навіть континенту. Італія, яка під час Другої світової війни була в союзі з Німеччиною, надалі пережила складну історію. Тут люди після війни зосередили свої моральні, фізичні, інтелектуальні сили на відновленні економіки. У зв'язку з чим відбулося відоме «економічне диво» в Італії [4, с. 47]. Але разом з таким активним розвитком економіки і поліпшенням життя італійців в 60-х роках поступово почало приходити розуміння, що гроші не можуть змінити багатьох речей, і не замінять тих втрат, яких зазнали італійці в результаті Другої світової війни. Помітно змінювався попередній уклад життя: у великих містах країни відбувалась тотальна машинізація, села почали вимирати, збільшилась кількість емігрантів. В громадській думці Італії формувалися настрої тотального заперечення попередніх цінностей, і на тлі таких процесів та настроїв формувався і утверджувався постмодернізм. І разом з розумінням, що розвинена економіка не змінить життя середньостатистичного італійця, в культуру став вриватися масмаркетинг, перетворюючи її в масову культуру. Саме це і відобразилося найбільшою мірою на ідеях постмодернізму в цій країні. Почалася «гра» з протиставленням масовості та елітарності, яка переросла в колажування, як одну з головних особливостей італійського постмодернізму [5]. До того ж серед філософів Італії визрівало розуміння, що різниця між постмодернізмом та явищами масової культури стерлася, як і різниця між науками, сферами культури, течіями, тощо. Про це, наприклад, писав А. Кортелесса у своїй праці «Оповідачі нульових років» [6]. Це є однією з причин, чому важливо розглядати явище постмодернізму в Італії не тільки з точки зору філософії, але і в контексті процесів, що відбувались в літературі, кіно, архітектурі. Означені явища так чи інакше фігурували у працях авторів, які досліджували прояви і сутність «постмодернізму» в італійській культурі, таких, як Дж. Ваттімо, У. Еко, Е. Маджіо, К. Сині, Дж. Чірільяно та багато інших.

Розглядаючи особливості італійського постмодернізму, варто враховувати, що він

поділився на кілька різновидів, один з яких отримав назву «ослаблене мислення» (ще його називають «слабким», в італійській є кілька варіантів перекладу слова *debole* – ослаблений та слабкий, але ми вважаємо, що найбільш влучний переклад – це ослаблене). Вперше вжив цей термін Дж. Ваттімо, маючи на увазі усвідомлення італійцями того, що людині більше не потрібні абсолютні і безсумнівні істини, однак це не штовхає обов'язково до тотального несприйняття минулого, а швидше повинно викликати почуття шанобливості по відношенню до цінностей та ідеалів минулих традицій [7], проте вже втрачених і не дієвих.

Загалом ті італійські філософи і мислителі, що формували ідеї постмодернізму, розуміли і відзначали, що вони прийшли вже «після», проте варто не відкидати занадто радикально і сприймати все, що було «до», ставитися до нього з повагою, але виходити «за межі» минулого та творчо експериментувати. Вперше в Італії офіційно визнали наступ епохи постмодерну на фестивалі Бієнале у Венеції в 1980 році, і, звернемо увагу, саме на виставці під назвою «Присутність минулого» («La presenza del passato») [8]. Саме там було яскраво представлено два вектори інтелектуальної активності італійського постмодернізму:

один – повернення до історичного коріння;

другий – звернення до новаторського лінгвістичного експерименту, що базується на подвійному коді [9].

На таких засадничих позиціях, що, з однієї сторони, апелювали до минулого, проте, з іншої сторони, вважали попередні цінності та ідеали такими, що втратили свої дієвість та реалістичність, через що їх треба суттєво переглянути (наприклад, у варіанті «послабленого мислення») врешті окреслились доволі своєрідні і виразні особливості італійського постмодернізму. Праці названих вище дослідників дають можливість назвати п'ять суттєвих особливостей італійського постмодернізму:

1. Широке використання символу *лабіринту* для зображення складності та ситуацій дезорієнтації.

2. Апелювання до *знання*, що подавалось *то-тожним до мови*, активні лінгвістичні експерименти.

3. Сприйняття вищої влади через таємні змови, які звичайна людина не в змозі розплутати, бо героїв серед простих людей немає.

4. Усвідомлення того, що людство *вичерпало* свій культуротворчий потенціал, що вже все сказано, все можливе вигадано, все прочитано. Єдине, що можна тепер робити в культурі – це лише повторювати.

5. Систематична зміна співвідношень між історією часу і часом історії (як приклад – твори І. Кальвіно, У. Еко та ін.) [10].

Поява постмодернізму на арені культурного та інтелектуального життя Італії не була випадковою, оскільки процес його зародження та проявів був підготовлений тими новаціями в італійській культурі, що органічно вписувались у той досвід народного життя, що був пов'язаний із Другою світовою війною, із внутрішніми соціальними та ідеологічними конфліктами в країні, із складним та драматичним процесом виходу із повоєнної кризи та, врешті, доволі швидким, хоча й суперечливим щодо окремих регіонів Італії, перетворенням її у розвинену індустріальну країну. Своєрідність утвердження ідей постмодернізму на італійському культурному ґрунті була обумовлена, по-перше, великим впливом на цей процес мистецтва, зокрема літератури та кінематографа, а, по-друге, тою роллю, що при цьому відіграли такі авангардні течії, як неореалізм, авангард та неоавангард. Нарешті, на наш погляд, цікавими особливостями появи і утвердження постмодернізму в Італії можна вважати доволі відчутний наголос названих вище ідейних течій на новій мові, мовних експериментах, на доволі прямому пов'язуванні мовних новацій із явищами суспільного життя та культури.

Слід додати, що на кінець 70-х років ХХ століття постмодернізм вже поширювався територією Європи: після Франції до Великобританії він проявився у Німеччині, де постмодернізм приживався досить довго, а потім з істотною часткою німецького впливу – в Італії. В Італії ідейний прояв постмодернізму назвали, як вже відзначалось, «ослабленим мисленням». Першовідкривачами на ниві досліджень цього погляду на епоху загалом і течію були І. Кальвіно, Дж. Ваттімо. Італійському постмодернізму притаманні певні оригінальні риси і прояви, що обумовлене як соціально-історичною ситуацією Італії після другої світової війни, так і суттєвими особливостями

культурних традицій у цій країні та її загальною інтелектуальною атмосферою, в якій виразно домінувало амбівалентне ставлення до попередньої історії. Внаслідок названих причин італійський постмодернізм формувався відразу як цілий спектр напрямів та течій, в яких нео-авангардизм існував паралельно із новітніми філософсько-світоглядними напрямками та течіями. Суттєвою особливістю італійського постмодернізму було поширення в ньому концепцій «Слабкого мислення», «Послабленого раціоналізму», «Послабленого (слабкого) мистецтва»; на наш погляд, саме такі уподобання засвідчили прагнення італійських постмодерністів сповідувати, як зазначалось вище, ідею «двох постмодернів»: такого, що розриває із минулим, та такого, що модифікує, оновлює минуле (як приклад – своєрідність нео-парменідизму). Нарешті, дуже важливою рисою італійського постмодернізму було те, що він постав як поєднання філософсько-світоглядних, ідеологічних прагнень та концептів із практиками художньо-мистецької діяльності. Італійський постмодернізм – це переважно філософсько-мистецьке (перш за все – філософсько-літературне) явище. Так званих «чистих філософів» у ньому майже немає, проте серед його проявів і немає таких напрямів мистецької діяльності, що не культивували би світоглядні та ідеологічні заклики або програми.

Спеціальні дослідження, здійснені італійськими науковцями, такими як У. Еко, Дж. Ваттімо, В. Чезерані, тощо, дозволяють віднести до основних характеристик постмодернізму в Італії такі:

1. Криза ідей так званих «сильних» філософій минулого, фундатори та прихильники яких прагнули зрозуміти і змінити світ на основі вироблення надійних та виправданих розумом знань. Дослідження з нових позицій та у новому контексті теорій Ф. Ніцше і М. Гайдеггера. Поява і поширення «слабкого» нігілізму.
2. Зникнення традиційного суб'єкта інформаційної та соціальної активності, а також зникнення «традиційних медіа» у зв'язку з появою нових видів ЗМІ в Інтернет-мережах, відкриті можливості для вираження думки кожного завдяки соціальним мережам і так далі.
3. Сповідування тези про «вторинність» сучасної культури (в культурі вже все зроблено, все побачене, все сказано; нічого нового вигадати неможливо), сприйняття всіх текстів через

інтертекстуальність, цитація того, що вже є, переписування існуючого та до певної міри гра із ним.

4. У філософії з'являються образи, що стверджують дезорієнтацію у всьому та відсутність будь-чого певного як у потоці життя, так і в історичному процесі. Прикладом можуть послужити твори У. Еко.

5. Весь світ навколо і знання про нього зводяться до мови, а символ набуває значення особливої масштабності, хоча при тому запевнюється існування його певного значення.

6. Розмиваються кордони між мистецтвом експериментальним і мистецтвом для мас, так само як і кордони між різними сферами інтелектуальної діяльності та аспектами реального буття.

7. Ставлення до минулого як до своєрідного екрану, на якому відображені усі сучасні проблеми, в той же час наполягання на неможливості асоціювати себе не в контексті цього минулого.

«Нам ще не вийшло дати ім'я новій епосі – пише В. Чезерані – але вже є найпоширеніший термін для позначення цього процесу – «Постмодерн». Його дали американці. Назвали «ною реальністю», «постмодернізмом» [11]. Але, на його думку, це всього лише ярлик, який обмежує реальність та не виражає всієї своєрідності цілої епохи і не визначити її повністю. В. Чезерані стверджує, що варто говорити про «два постмодерни», про дві епохи, два історичні моменти, оскільки ця епоха неоднозначна: з одного боку, критична до минулого, з іншого – нерозривна з ним. Італійці, судячи з усього, сприйняли ці думки не лише як виправдані судження про реальний стан справ, але й як заклик до дії [12]. І це проявилось у тому, що в епоху постмодерну в італійській культурі виникало відразу кілька течій, що розвивалися паралельно.

На наш погляд, виділені нами певні виразні особливості італійського постмодернізму дозволяють, з однієї сторони, доповнити існуючі в дослідницькій літературі загальновизнані його риси наголосом на його плюралістичній сутності, а також на його органічних зв'язках із регіональними соціально-культурними процесами розвитку певного суспільства, а, з іншої сторони, і дещо змінити загальні окреслення цього помітного і впливового явища сучасності.

Якщо врахувати ті традиційні риси явища постмодернізму, що виділені його авторитетними дослідниками, але при тому врахувати й те, що він має культурно-регіональні прояви та особливості, що, зокрема, були продемонстровані на матеріалі італійського постмодернізму, то, на нашу думку, можна у підсумку сформулювати його найбільш загальні характеристики у такому вигляді, що дозволяв би водночас бачити його і як плюралістичне явище.

Підсумовуючи, можна зауважити, що постмодернізм – це:

- сучасний полікультурний стиль осмислення та освоєння дійсності;

- він характеризується визнанням неавтентичності, вторинності сучасної культури, що постає деяким N-порядковим нашаруванням над початковими та автохтонними культурами;

- відповідно до цього єдиною реальністю постмодернізм вважає тексти, знакові процеси та знаково-символічні утворення, що давно вже втратили функцію позначення реальності, а тільки інакше пере-позначають вже наявні позначення та текстові утворення;

- він відмовляється від визнання існування виправданих границь та градацій між різними сферами, жанрами, напрямками культурної діяльності та різними культурами, а також між культурою та іншими способами дій та поведінки;

- він характеризується переконанням у тому, що культурні новації можуть в наш час

реалізовуватись лише на основі гри із досягненням попередніх культур, їх довільним змішуванням;

- відповідно, ставлення до попередніх культурних традицій та досягнень може відбуватись на основі іронії, гротеску, фарсу, пастишу, колажу та ін.;

- постмодернізм наполягає на радикальному протистоянні організуючим началам та орієнтирам модерну, таким як логіка, чіткі структури, ефективність, сталість та оголошує реальність такою, що перебуває по той бік розуму та хаосу, завжди невизначеною та неоднозначною.

ВИСНОВКИ

Уважне вивчення найбільш виразних особливостей італійського постмодернізму дає підстави стверджувати, що вони обумовлені, з однієї сторони, поширенням в Італії загальних ідей і тверджень постмодерністів (зокрема, німецьких), а, з іншої сторони, певними рисами соціально-культурної ситуації в країні після Другої світової війни та існуючими тут культурно-історичними традиціями. Все це вилилось в особливе ставлення до минулого, до часу, до мови, до відчутної взаємної дифузії філософії та мистецтва, до строкатої суміші жанрів та сприяло поширенню доволі оригінальної культурно-регіональної концепції «ослабленого мислення». Увага до цих та інших особливостей італійського постмодернізму, безумовно, посприяє збагаченню наших уявлень про постмодернізм як явище сучасності.

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