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PEACE AND CONFLICT RESOLUTION :A CONTINGENCY TABLE ANALYSIS OF JOS-PLATEAU CRISIS

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ABSTRACT

This study is undertaken to conduct a contingency table analysis of Jos-Plateau crisis to determine the factors that chiefly account for the preponderance of conflict in Jos-Plateau and the effects of peace efforts on the Jos/Plateau crisis through a survey of the ethno-religious and political perception of the people on the catalysts for peace and conflict resolution to reveal the spark that appears before the fire, in order to achieve sustainable development in Nigeria. The data used is a primary data obtained through the administration of sample questionnaires, initially tested through a pilot survey, to the residents of Jos metropolis and environs. The statistical tools employed in the study are the Akaike Information Criterion (AIC) and Residual Analysis. Injustice, religion and economic hardship are identified as the causes of the preponderance of conflict in the study which also shows religious intolerance and economic hardship to be the chief causes of conflict in Jos/Plateau with dispensation of justice having little effect on the conflict.

INTRODUCTION

Peace is the absence of war (negative peace) or the presence of justice (positive peace) which is the opposite of violence or conflict according to [1]. Peace is the goal of society as asserted by [2] but which must first be developed within an individual. Love, Compassion, and Sincerity are the fundamental basis for peace: once these qualities are developed within an individual, he or she may be enabled to create an atmosphere of peace and harmony. This atmosphere can be extended from the individual to the family, community and the whole world at large as in the account of [3].

Conflict, may, on one hand be viewed as an existing disagreement or hostility between two or more people. It refers to opposition to existing views, stand or position which may not necessarily result in hostility but a varied perception to an issue, belief or situation as in [4]. These may include religion, customs, politics or other valued differences which may never culminate in direct and sharp confrontations. On the other hand, however, differences in perceptions, values or world views may transcend mere 'differences' and results in the extreme connotation of conflict: Inter - faith violence is a critical example of such breakdown. When value differences or goal incompatibility reach a climax, a display of actual hostility or attack is possible stated [5].

Human society experience has shown that various degrees of conflicts exists. Conflict could be intra-personal, inter-personal, intra-group or intra-unit or intra-state, as well as inter-group: also variously identified as inter-ethnic, inter state or as well as international conflict according to [6].

Intra-personal conflict refers to a state of confusion in an individual shaped by the state of mind which is largely dictated by circumstances around the individual. These may include anger, depression, confusion, frustration, which could lead to aggression, erratic behaviour, addiction and in extreme cases, suicide. In this kind of conflict the individual continues to battle with his mind and habits as in the account of [3].

Inter-personal conflict is variously described as "man against man" in the micro sense. It may be a more subtle conflict between the interests of two or more persons which may be implicit and obvious to the conflicting parties as stated by [7].

Conflict involving Man against Society and Man against Nature is an interesting type of conflict which in the opinion of [4] arose when man stands against a man-made institution or practices. These may include slavery, human rights abuses, human trafficking, child prostitution, bullying, corruption, mal-administration in



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governance, etc, and can culminate into a state of contention between man and his environment in the account of [7].

Inter-group Conflict is the kind of disagreement or feud which takes places between two or more sectarian or religious groups, ethnic groups, communities, or interest groups. The contention between Christians and Moslems in Nigeria is a classic example of inter-group conflict as in [6] .

Conflicts have adverse effect on economic growth through the destruction of human and physical capital, shifts in public spending and private investment, as well as the disruption of economic activities and social life as asserted by [8]. The specific impacts depend on each conflict's singular characteristics. It is not just the type of conflict, but also its intensity, duration and geo-graphical spread that shapes its economic consequences. Economic impact of violent conflicts is not limited to the conflict area as the spill over effects to the neighboring regions and countries may yield refugee flow increase, increase in labour supply, low per capita income, disruption in trade flows, diversion of government spending to non-productive security measures, reduced access to portable water supply and shift in foreign direct investment from regions that are perceived as insecure as reported by [9].

Peace and conflict resolution

Peace cannot be looked at merely as the absence of war since there could be lack of peace even within an individual according to [6]. Lack of peace or conflict usually presents an early warning signals which could be harnessed to facilitate a peaceful end to it. Methods of conflict resolution may include: counseling, negotiation, mediation, mediation-arbitration, diplomacy and creative peace building as in [10]. [10] also advocated the use of quantitative methodology to determine conflict trend and forecast future trend.

Jos/Plateau conflict

The history of ethno- religious conflict in Nigeria is riddled with competition for power and decision making over economic resources and other important human factors, like position. Majority of conflicts takes time before their escalation and as such, could have been transformed right at their respective early stages according to [11].

In the accounts of [12], [13] and [14], some of the notable conflicts in the post-independence era (1960 and beyond) in Jos/Plateau include; Jos (1994, 2000, 2001 - 2003, 2008, 2009, 2010), Yelwa-Shendam (2002, 2004), Bukuru-Gyer (1997), slight skirmishes do take place in remote villages of Plateau several times every year as an off shoot of the lingering crisis which may be linked to religion, ethnicity, politics, social imbalance or a combination of any of these and other factors.

It is pertinent to note that section 10 of the constitution of the Federal Republic of Nigeria 1999 (as amended) says that there shall be no state Religion but section 260 (I) allows for a Sharia (Islamic) court of appeal, even at the Federal Capital Territory, Abuja. This seeming contradiction may seriously questioned the secularity of the Nigeria state which has made many scholars to describe her as a multi-religious rather than truly a secular state in the account of [5].

Jos was officially founded in 1915. The Berom and other groups argue that the city was founded on land that belongs to them as the native people of the Plateau. The Hausa-Fulani contest this claim and holds that the city was established on 'Virgin land' that belonged to nobody in particular as in [15]. Jos was established with the commencement of tin mining. By the mid - 1940s, more than 200 mining camps has been built on the Plateau and the miner population exceeded 40,000 stated [16]. The Hausa constituted the most numerous ethnic group that worked in the mines. Significant numbers of Igbo, Yoruba and members of smaller tribes also migrated to Jos during the same period. Those who had received a western education in the south of Nigeria served within the colonial administration. Others worked as craftsmen or in commerce. Owing to the mining activities, the city expanded rapidly and the population grew steadily between 1930 and 1960 [15] and [17].



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The regional dimension of the Jos Crisis is such that the indigene-settler issue is endemic in the “middle Belt” States surrounding the Plateau. The north-Central is plagued with rural conflicts over land and grazing rights and other political representation according to [16]. Several states, such as Benue and Plateau, are reported to host large numbers of ex-soldiers with access to weapons. These individuals are also available to form and train militias based on existing vigilante groups. The proliferation of arms in the North-Central zone has been recognized as a danger to peace for several years stated [16].

Again, in the account of [16] many Christians in Jos claimed that the discrimination against fellow Christians in Muslim dominated Northern states make the political exclusion of the Jarawa community in Jos expedient. They cite instance with the ancient city of Kano which hosts a significant Christian population that is denied indigene rights. Non-Hausas there have never been granted a Local Government Area but were divided and placed within Hausa dominated areas just to ensure that they never dominated any political space in Kano. Several factors have contributed to the dimension of confrontation in Jos. Some Christian’s leaders linked the Jos conflict to a broader religious confrontation as in [2] while some of the Muslims leaders claim that crisis in Jos were ethno-political in all ramification; its antecedents, the circumstances, the principal actors and vehemently protested the religious framing of the crisis.

In this work, the main focus is on the ethnic, religious and political conflicts in Nigeria using Jos/Plateau as a case study with a view to determining the factors that chiefly account for the preponderance of conflict in Jos-Plateau and the effects of peace efforts on the Jos/Plateau crisis through a survey of the ethno-religious and political perception of the people on the catalysts for peace and conflict resolution to reveal the spark that appears before the fire, as basis for nipping seeming conflict situations in the bud to save lives and property and engender national overall development since nothing thrives in the face of manifested conflict.

MATERIALS AND METHODS

Study area and data collection

The study area for this research work is Jos South Local Government area of Plateau State in Nigeria which is where our research population came from. Jos South Local Government Area houses the governor’s office in Ray Field and can thus be described as the de facto capital of Plateau State. Jos South Local Government Area has an area of 510km² and a population of 306, 716 as at the 2006 census. It is the second most populated local government area in the state after Jos-North. The local government consists of 4 districts/areas which are Gyel, Kuru, Du and Vwang as in [15]

The structured tool used for this work is the questionnaire which is made up of fifteen (15) questions in all. The questionnaire is made of two parts; Part A and Part B. Part A are questions related to personal or demographic information and in that part we have six (6) questions. Part B are questions related to opinion on past crisis and the way forward ,that part consist of nine (9) questions: Questions 1-6 dwells on dispensation of justice; 7-8 borders on economic factors while question 9 borders on impact of religion. The responses beams on the level of agreement or disagreement with the question statement which is presented in a contingency table

Contingency table

The contingency table is made up of i rows and j columns as illustrated below in table 1, for $i=1,2,\dots,r$; $j=1,2,\dots,c$: where r and c are number of row and column categories respectively.

Table 1. Contingency table illustration:

Observation	1	2	...	j	...	c	Row totals ($n_{i.}$)
1	n_{11}	n_{12}	...	n_{1j}	...	n_{1c}	$n_{1.}$
2	n_{21}	n_{22}	...	n_{2j}	...	n_{2c}	$n_{2.}$
\vdots	\vdots	\vdots	\vdots	\vdots	\vdots	\vdots	\vdots
I	n_{i1}	n_{i2}	...	n_{ij}	...	n_{ic}	$n_{i.}$



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⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
R	n_{r1}	n_{r2}	⋯	n_{rj}	⋯	n_{rc}	n_r
Column totals (n_j)	$n_{.1}$	$n_{.2}$	⋯	$n_{.j}$	⋯	$n_{.c}$	$n_{..}$

The sample size used for this research work was estimated from the population size of 306,716 for Jos-South LG Area. The sample size was determined as in [18] and [19], where

$$\text{Sample size} = \frac{N}{1+Ne^2} \quad N = \text{Population Size, } e = \text{Tolerable Error (0.05 or 0.1)}$$

At $e=0.05$, four hundred (400) questionnaires were administered. Three hundred and fifty (350) were retrieved. Fifty (50) questionnaires were rendered invalid due to inconsistency in responses. At the end Three hundred (300) samples were used for the analysis.

Akaike information criterion (AIC)

In regression analysis, AIC estimates the quality of each model relative to each of the other models. AIC is founded on information theory: It offers a relative estimate of the information lost when a model is used to represent the process that generates the data. The initial derivation of AIC relied upon some strong assumptions founded on the concept of entropy in information theory, hence the name information criterion as explained by [20].

AIC confers advantage in that: it is valid for both nested and non nested models; it compares models with different error distribution and; it avoids multiple testing issues.

Akaike Information Criterion(AIC) is given as $AIC=e^{-\frac{2k}{n} \frac{RSS}{n}}$ or $\ln AIC=-\frac{2k}{n} + \ln(\frac{RSS}{n})$. where k is number of regressors, n is number of observations while RSS is the residual sum of squares [20]. Where, again, the model with the least value of AIC is considered better than the rest if interest is in forecasting.

For a contingency table analysis, as adopted in this work, the AIC model is represented in terms of dependence and independence models. When the independence model value is minimum compared to the dependence model value in absolute terms, we do not reject H_0 and otherwise, we do not accept H_0 .

The AIC models for independence and dependence are represented below, denoted by AIC (0) and AIC (1), respectively, as in [21].

- Model for independence: $AIC(0) = -2\sum n_{ij} \log_e \frac{n_i n_j}{n^2} + 2(rc - 2)$ (4)

- Model for dependence: $AIC(1) = -2\sum n_{ij} \log_e \frac{n_{ij}}{n} + 2(rc - 1)$ (5)

Where: n = sample size, r =number of rows, c =number of columns

n_{ij} =observation in i^{th} row and j^{th} column, n_j =column total, n_i =row total

Residual analysis

When the model of dependence is selected, we use residual analysis to determine the contribution or effect of each factor on the other factors or responses through the contribution of each cell entry. Residual analysis is denoted by R_{ij} and determined as

$$R_{ij} = \frac{n_{ij} - \frac{n_i n_j}{n}}{\sqrt{\frac{n_i n_j}{n} (1 - \hat{p}_i)(1 - \hat{p}_j)}} \quad (6)$$

$$\hat{p}_i = \frac{n_i n_j}{n n_i} = \frac{E}{n_i}, \quad \hat{p}_j = \frac{n_i n_j}{n n_j} = \frac{E}{n_j} \quad (7)$$

Where n_{ij} , n_i , n_j has the same meaning as explained above while E is the expected value

\hat{p}_i =Proportion of row total and \hat{p}_j = Proportion of column total



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Where the higher or lower the value of R_{ij} is from 2 or -2 the more significant the effect of the cell and the values of R_{ij} signifies the effect of the respective cell. Values of R_{ij} above 4 shows the effects of outliers which accounts for the dependence.

A number of hypotheses were considered and tested. Example of the hypothesis is as stated below

Hypothesis 1

H_0 : There exist independence between educational attainment and opinion on injustice as a catalyst for Jos/Plateau crisis i.e. there is no association.

Vs.

H_1 : There exist dependence between educational attainment and opinion on injustice as a catalyst for Jos/Plateau crisis i.e. there exist association.

RESULTS AND DISCUSSION

The AIC models analysis performed using statistical package for social sciences (SPSS 21) is shown in table 2 below while results for a sample residual analysis is in table 3.

Table 2. Results from AIC analysis

FACTORS	QUESTIONS	AIC (0)	AIC (1)	DECISION
Edu. Attainment	9	259.914	465.581	Do not reject H_0
Edu. Attainment	7-8	2084.586	1353.164	Reject H_0
Edu. Attainment	1-6	4152.617	2345.622	Reject H_0
Religion	9	441.238	446.992	Do not reject H_0
Religion	7-8	2132.070	1166.682	Reject H_0
Religion	1-6	4657.832	1787.448	Reject H_0
Age	9	490.286	491.986	Do not reject H_0
Age	7-8	1903.132	1528.430	Reject H_0
Age	1-6	3509.074	1942.984	Reject H_0
Occupational	9	265.650	584.908	Do not reject H_0
Occupational	7-8	1654.408	1686.656	Do not reject H_0
Occupational	1-6	3614.374	2622.370	Reject H_0

Table 3. Results of residual analysis of age on opinion on economic hardship

AGE	Questions 7-8 (R_{ij})				
	SA	A	NI	D	SD
12-17	4.690	-0.452	-2.8	-2.16144	0.953463
18-25	-0.765	-10.961	5.129892	4.193259	0.978232
26-60	-4.599	10.11181	-1.3484	-1.24528	-1.92847

The results of the analysis showed independence between the demographic factors of age, educational attainment, religion and occupation of respondents on the effect of religious intolerance on Jos/Plateau conflict. However the responses of the respondents on injustice or dispensation of justice varies within each demographic factor

In addition, the analysis showed dependence of education attainment, religion and age of respondents on opinion on economic hardship but on the other hand, there exist independence between economic hardship and



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occupational status of the respondents, implying, from the data analysis, that all categories of workers either agree or strongly agree that economic hardship is a catalyst to conflict in Jos/Plateau.

More so, from the residual analysis in table 3.2, respondents aged 12-17 strongly agreed that economic hardship is a major cause of the conflict in Jos/Plateau, those aged 26-60 merely agreed while the fighting age group 18-25 do not have any idea whether economic hardship is a major cause of the conflicts in Jos /Plateau. Likewise, in the other analysis, respondents with secondary education claims not to have idea on whether conflict is caused by economic hardship. Considering injustice factor, the residual showed a little variation in the responses as Christians and individuals within the age range of 12-17 responded not to have idea on causes of conflict relating to injustice or dispensation of justice. Also traditional worshippers, businessmen and self-employed disagreed with injustice or dispensation of justice as a cause of conflict.

CONCLUSION

From the results of the analysis, we can conclude that the major cause of conflicts is religious intolerance followed by economic hardship with the effect of dispensation of justice having no significant role on the Jos/Plateau conflict.

Base on the findings of this study, it can be recommended that for peace to be sustained in Jos/Plateau and development achieved in Nigeria, every effort should be geared towards eschewing every activities that fans the embers of religious hatred and conflicts: this includes the activities of politicians in Jos/Plateau since dispensation of justice with respect to pending cases with law enforcement agencies and the judiciary leading to inappropriate administration of justice were not cited as the chief cause of conflict. Therefore, conflict instigators should be brought to book irrespective of their social class because the chief cause agrees with the conclusions of [16] and [2]. Hence the researchers advocates for peace education in Jos/Plateau and Nigeria in general.

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