



The Study of Some Related Factors Influencing the Prevalence of Insecurity in Katsina State

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ABSTRACT

This research work is on the study of some related factors influencing the prevalence of insecurity in Katsina State. The research work aims to investigate and understand the specific factors contributing to the prevalence of insecurity in Katsina State, Nigeria. The data for this research is primary data which was collected through questionnaire; four hundred questionnaires were administered for this research. The data was analyzed using descriptive and inferential statistics. The research found that unemployment, drug abuse, kidnapping, weak security and lack of using CCTV are the factors that cause the prevalence of insecurity in the research areas. Moreover, it was found that the factors cattle rustling and clashes between farmers and cattle rearers not differ significantly at 5% level of significant. Furthermore, it was found that unemployment, drug abuse, kidnapping, weak security and lack of CCTV differ significantly at 5% level of significant. Finally when tried to compare the means of the corresponding responses between unemployment and poverty it was found that the responses of strongly agreed, agreed, neutral and disagreed have the same perception on the factors unemployment and poverty, while the responses of strongly disagreed have different perception on the factors of unemployment and poverty.

Keyword: Factors, Influencing, Prevalence, cattle rustling, and Insecurity.

INTRODUCTION

Insecurity refers to a state of vulnerability, uncertainty, and lack of safety or confidence. It can manifest in various forms, such as physical insecurity (threats to personal safety), economic insecurity (financial instability), social insecurity (lack of a support network), or political insecurity (instability in governance or society). Insecurity often leads to feelings of anxiety, fear, and instability, both on an individual and societal level. Insecurity, as a common and multifaceted challenge, has created a crisis in the stability of Katsina state, Nigeria. This study begins an investigation into the causes of insecurity in this region. Katsina State, located in the north west of Nigeria, has a collection of different cultures, traditions and history. However, its potential for prosperity is often overshadowed by the emerging insecurity, a phenomenon that has profound implications for the well-being and prospects of its inhabitants.

Katsina State has experienced the challenge of insecurity in recent years, which includes conflicts related to natural resources, criminal activities, violence and political conflicts. These insecurities are compounded by many factors, some overt and some hidden, which have turned Katsina state into a theater. To understand the complex nature of this insecurity, one must dig deep into the heart of these interrelated factors.

Insecurity is just the opposite of what we have as security. Insecurity like security is often used in a number of ways. Many people would take it to mean lack of safety or the existence of danger; hazard; uncertainty; lack of trust; doubtful; inadequately guarded or protected; lack of stability; disturbed; lack of protection and unsafe (Achumba et al, 2013). Insecurity will make you lose trust, be frightened, unsettled, oppressed, lose

focus, and be devastated and lose your humanity. Adebajoko & Ugwuoke (2014) opine that insecurity is the State of being subject in every respect to terror, threat, risk, molestation, bullying, harassment, etc. Insecurity, for example, can be conceived as a threat to the state that often accounted for the arms and nuclear weapons race to protect the state.

Some researches were carried out using two or more factors for example Ugo et al (2019) conducted a research based on poverty and insecurity in Nigeria: an empirical study using linear regression analysis. The results showed that poverty has a positive and significant relationship with insecurity in Nigeria ($r = 0.783$). As predicted, the study also revealed that poverty exerts a positive and statistically significant impact on insecurity in Nigeria ($r^2 = 0.716$). Olaniyi and Ikechukwu (2019) conducted a research on Impact of poverty, unemployment, inequality, corruption and poor governance on Niger-Delta attacks, Boko Haram terrorism, Fulani herdsmen attacks in Nigeria using fully modified ordinary least squares (FMOLS). The research discovered that Niger-Delta militancy, Boko haram terrorism and herdsmen attacks in Nigeria are significantly attributed to the worsened rate of poverty, unemployment, inequality, corruption and poor state of governance in the country.

This research work attempts to use many factors because assuming many factors in a research leads the research to be reliable and accurate. But when a research considers many factors the impact of the factors on the response variable differs, some factors could explain the response variable fully while some factors could not. This research work could not found an existing research work that makes use of at least ten factors that cause the prevalence of insecurity in the study areas. Moreover, the research could not found an existing research work that particularly considers the study areas. Therefore, there is gap of information when many factors influencing the prevalence of insecurity in the study areas are considered. It is from this perspective that, this study intends to investigate and understand the specific factors contributing to the prevalence of insecurity in Katsina State, Nigeria.

This research work attempts to answer the following questions: What are the factors that could fully explain the prevalence of the insecurity in the study areas? Is there a significant difference between the poverty and the unemployment as the factors of insecurity in the study areas? And is there a significant difference among the factors that contribute immensely to the prevalence of the insecurity in the study areas?

The research work attempts to investigate and understand the specific factors contributing to the prevalence of insecurity in Katsina State, Nigeria through the following objectives: to identify the factors contributing immensely to the rise of insecurity activities in the study areas, to assess the role of economic factors, including poverty and unemployment, in the prevalence of insecurity in Katsina State, to identify if there exist a significant difference among the factors that contribute to the rise of insecurity activities in the study areas and to provide evidence based recommendations and strategies that can help to address the identified factors contributing to insecurity in order to improve the overall security situation in Katsina State.

The Study Area

Katsina State is great and developed state which contains 34 local government areas (LGAs) in the state. Katsina State is the study area where the research will include: Bakori, Batsari, Dan-dume, Dan-ja, Dan-musa, Dutsin-ma, Faskari, Funtua, Jibia, Kankara, Kankia, Katsina, Kafur, Kurfi, Malumfashi, Matazu, Musawa, Sabuwa, and Safana LGAs.

Method of Data Collection

The data for this research work is primary data which was collected through questionnaires and questionnaires were distributed in each area of study according to the sample size formula (Yamane). There are nineteen local government areas under this research work. Four hundred questionnaires were distributed to the respondents at different level of age, education and gender and each questionnaire consists of thirty seven questions. The questionnaires were distributed to the respondents through convenience sampling method. On the other hand, a Focus Group Discussion (FGD) was conducted with traditional rulers and religious leaders selected equally from each of the randomly selected insecurity areas.

Method of Data Analysis

In this section inferential statistics method applied (Mann-Whitney U Test, and Kruskal Wallis Test) for the analysis of the data collected.

Mann-Whitney U Test

Mann Whitney U Test was used in chapter four of this research work and compared the means of the two different responses categories under poverty and unemployment. The test is an alternative approach to Two Samples Independent T-Test. The test statistic of the test is defined as:

$$U_1 = R_1 - \frac{n_1(n_1 + 1)}{2} \tag{1}$$

$$U_2 = R_2 - \frac{n_2(n_2 + 1)}{2} \tag{2}$$

Where, R_1 is the rank sum of the first sample and R_2 is the rank sum of the second sample, n_1 and n_2 is the first and second sample size respectively.

The test statistic has the following hypotheses:

$H_0: \mu_1 = \mu_2$ versus $H_a: \mu_1 \neq \mu_2$

Decision Criteria:

We are to reject H_0 if P-value is less than the alpha value 0.05 otherwise accepts H_0 .

Kruskal Wallis-Test

This research work employed Kruskal-Wallis Test which is an inferential statistics that is used to compare the medians of two or more independent samples of equal or different sizes. The test is an alternative approach to One-way Analysis of Variance (ANOVA) and is used to determine if there are statistically significant differences between two or more groups of independent observations on a continuous or ordinal dependent variable. The test statistic is defined as:

$$H = \frac{12}{N(N + 1)} \left[\frac{R^2_1}{n_1} + \frac{R^2_2}{n_2} + \dots + \frac{R^2_K}{n_k} \right] - 3(N + 1) \tag{3}$$

Where, K is the number of samples, n_i is the size of i^{th} sample, N is the sum of the sample sizes and R_i is the sum of the ranks of the i^{th} sample.

The test statistic has the following hypotheses:

H_0 : The medians of each group are the same. H_a : at least one of the groups has different median.

Decision Criteria:

We reject H_0 if P-value is less than the alpha value otherwise we fail to reject.

RESULTS AND DISCUSSION

This research presents the summarized analysis of the data collected using various techniques employed while in the field and discussion of the findings in the following tables.

Table 1: Result presentation of clashes between farmers and cattle rustlers using Kruskal-Wallis test

F	N	MEDIAN	AVERAGE RANK	Z
1	5	26.000	10.2	-0.95
2	5	62.000	16.9	1.32
3	5	71.000	19.2	2.11
4	5	22.000	9.0	-1.36
5	5	25.000	9.7	-1.12
OVERALL	25		13.0	
H= 8.16		DF= 4	P= 0.086	
H= 8.17		DF= 4	P= 0.086	Adjusted for ties

From the above result obtained in table 1 it has been observed that the P-value is 0.086 which is greater than the alpha value 0.05, thus, we fail to reject the null hypothesis and conclude that the medians of each group are the same. This indicates that the views of the respondents in the entire LGAs about the clashes between the farmers and cattle rearers not differ significantly across the age group.

Table 2: Result presentation of Unemployment using Kruskal-Wallis test

F	N	MEDIAN	AVERAGE RANK	Z
1	5	120.000	18.4	1.83
2	5	79.000	18.2	1.77
3	5	76.000	17.4	1.49
4	5	7.0000	7.5	-1.87
5	5	1.0000	3.5	-1.23
OVERALL	25		13.0	
H= 8.16		DF= 4	P= 0.001	
H= 8.17		DF= 4	P= 0.001	Adjusted for ties

From the above result obtained in table 2 it has been observed that the P-value is 0.001 which is less than the alpha value 0.05, thus, we are to reject the null hypothesis and conclude that at least one of the groups has different median. This indicates that the views of the respondents in the entire LGAs about the factor unemployment differ significantly across the age group.

Table 3: Result presentation of Poverty using Kruskal-Wallis test

F	N	MEDIAN	AVERAGE RANK	Z
1	5	83.000	15.6	0.88
2	5	92.000	17.8	1.63
3	5	97.000	19.6	2.24
4	5	12.000	9.000	-1.36
5	5	1.0000	3.000	-3.40
OVERALL	25		13.0	
H= 8.16		DF= 4	P= 0.002	
H= 8.17		DF= 4	P= 0.002	Adjusted for ties

From the above result obtained in table 3 it has been observed that the P-value is 0.002 which is less than the alpha value 0.05, thus, we are to reject the null hypothesis and conclude that at least one of the groups has different median. This indicates that the views of the respondents in the entire LGAs about the factor poverty differ significantly across the age group.

Table 4: Result Presentation of Drug Abuse Using Kruskal-Wallis Test

F	N	MEDIAN	AVERAGE RANK	Z
1	5	0.018	22.2	3.13
2	5	0.59	17.4	1.49
3	5	0.32	14.4	0.48
4	5	3.0000	7.2	-1.97
5	5	0.0000	3.8	--3.13
OVERALL	25		13.0	
H= 20.79		DF= 4	P= 0.000	
H= 20.79		DF= 4	P= 0.000	Adjusted for ties

From the above result obtained in table 4 it has been observed that the P-value is 0.0000 which is less than the alpha value 0.05, thus, we are to reject the null hypothesis and conclude that at least one of the groups has different median. This indicates that the views of the respondents in the entire LGAs about the factor drug abuse differ significantly across the age group.

Table 5: Result Presentation of Drug Abuse Using Kruskal-Wallis Test

F	N	MEDIAN	AVERAGE RANK	Z
1	5	199.000	22.8	3.33
2	5	39.000	16.8	1.29
3	5	22.000	14.0	0.34
4	5	5.000	7.6	-1.83
5	5	1.0000	3.8	-3.13
OVERALL	25		13.0	
H= 20.80		DF= 4	P= 0.000	
H= 20.84		DF= 4	P= 0.000	Adjusted for ties

From the above result obtained in table 5 it has been observed that the P-value is 0.0000 which is less than the alpha value 0.05, thus, we are to reject the null hypothesis and conclude that at least one of the groups has different median. This indicates that the views of the respondents in the entire LGAs about the factor Kidnapping differ significantly across the age group.

Table 6: Result Presentation of Bad Roads Using Kruskal-Wallis Test

F	N	MEDIAN	AVERAGE RANK	Z
1	5	13.000	10.6	-0.82
2	5	54.000	18.2	1.77
3	5	109.000	21.8	2.99
4	5	12.0000	9.5	-1.19
5	5	2.0000	4.9	-2.75
OVERALL	25		13.0	
H= 17.36		DF= 4	P= 0.002	
H= 17.46		DF= 4	P= 0.002	Adjusted for ties

From the above result obtained in table 6 it has been observed that the P-value is 0.002 which is less than the alpha value 0.05, thus, we are to reject the null hypothesis and conclude that at least one of the groups has different median. This indicates that the views of the respondents in the entire LGAs about the factor bad roads differ significantly across the age group.

Table 7: Result Presentation of Cattle rustling Using Kruskal-Wallis Test

F	N	MEDIAN	AVERAGE RANK	Z
1	5	19.000	7.6	3.13
2	5	55.000	13.4	1.49
3	5	90.000	20.8	0.48
4	5	4.000	11.7	-1.97
5	5	48.000	11.5	--3.13
OVERALL	25		13.0	
H= 8.69		DF= 4	P= 0.067	
H= 8.69		DF= 4	P= 0.067	Adjusted for ties

From the above result obtained in table 7 it has been observed that the P-value is 0.067 which is greater than the alpha value 0.05, thus, we fail to reject the null hypothesis and conclude that the medians of each group are the same. This indicates that the views of the respondents in the entire LGAs about the cattle rustling not differ significantly across the age group.

Table 8: Result Presentation of weak security Using Kruskal-Wallis Test

F	N	MEDIAN	AVERAGE RANK	Z
1	5	7.00000E+01	20.2	2.45
2	5	4.90000E+01	18.4	1.85
3	5	3.00000E+01	15.2	0.75
4	5	0.0000	5.0	-2.72
5	5	2.0000	6.0	-2.31
OVERALL	25		13.0	
H= 18.10		DF= 4	P= 0.001	
H= 18.20		DF= 4	P= 0.001	Adjusted for ties

From the above result obtained in table 8 it has been observed that the P-value is 0.001 which is less than the alpha value 0.05, thus, we are to reject the null hypothesis and conclude that at least one of the groups has a different median. This indicates that the views of the respondents in the entire LGAs about the weak security differ significantly across the age group.

Table 9: Result Presentation of CCTV Using Kruskal-Wallis Test

F	N	MEDIAN	AVERAGE RANK	Z
1	5	15.000	15.1	0.71
2	5	28.000	19.000	2.04
3	5	15.000	16.6	1.22
4	5	11.000	10.8	-0.75
5	5	1.000	3.5	-3.23
OVERALL	25		13.0	
H= 13.70		DF= 4	P= 0.008	
H= 13.73		DF= 4	P= 0.008	Adjusted for ties

From the above result obtained in table 9 it has been observed that the P-value is 0.008 which is less than the alpha value 0.05, thus, we are to reject the null hypothesis and conclude that at least one of the groups has a different median. This indicates that the views of the respondents in the entire LGAs about the CCTV differ significantly across the age group.

Table 10: Result Presentation of Illiteracy Using Kruskal-Wallis Test

F	N	MEDIAN	AVERAGE RANK	Z
1	5	8.000	9.1	-1.32
2	5	22.000	13.9	0.31
3	5	52.000	21.6	2.92
4	5	20.000	11.8	-0.41
5	5	16.000	8.6	-1.49
OVERALL	25		13.0	
H= 10.23		DF= 4	P= 0.037	
H= 10.26		DF= 4	P= 0.036	Adjusted for ties

From the above result obtained in table 10 it has been observed that the P-value is 0.037 which is less than the alpha value 0.05, thus, we are to reject the null hypothesis and conclude that at least one of the groups has a different median. This indicates that the views of the respondents in the entire LGAs about the illiteracy differ significantly across the age group.

Table 11: Result Presentation of Unemployment and Poverty Using Mann-Whitney U Test Test Statistics^a

	Results
Mann-Whitney U	5.000
Wilcoxon W	20.000
Z	-1.567
Asymp. Sig. (2-tailed)	.117
Exact Sig. [2*(1-tailed Sig.)]	.151 ^b

From the above result obtained in table 11 it has been observed that the P-value is 0.151 which greater than the alpha value 0.05, thus, we fail to reject the null hypothesis and conclude that the means of the two independent samples are the same. This shows that the people under the study have the same point of views under the unemployment and poverty when we look at the responses of strongly agreed.

Table 12: Result Presentation of Unemployment and Poverty Using Mann-Whitney U Test Test Statistics^a

	Results
Mann-Whitney U	10.000
Wilcoxon W	25.000
Z	-.522
Asymp. Sig. (2-tailed)	.602
Exact Sig. [2*(1-tailed Sig.)]	.690 ^b

From the above result obtained in table 12 it has been observed that the P-value is 0.690 which greater than the alpha value 0.05, thus, we fail to reject the null hypothesis and conclude that the means of the two independent samples are the same. This shows that the people under the study have the same point of views under the unemployment and poverty when we look at the responses of Agreed.

Table 13: Result Presentation of Unemployment and Poverty Using Mann-Whitney U Test Test Statistics^a

	Results
Mann-Whitney U	9.000
Wilcoxon W	24.000
Z	-.731
Asymp. Sig. (2-tailed)	.465
Exact Sig. [2*(1-tailed Sig.)]	.548 ^b

From the above result obtained in table 13 it has been observed that the P-value is 0.548 which greater than the alpha value 0.05, thus, we fail to reject the null hypothesis and conclude that the means of the two independent samples are the same. This shows that the people under the study have the same point of views under the unemployment and poverty when we look at the responses of Neutral.

Table 14: Result Presentation of Unemployment and Poverty Using Mann-Whitney U Test Test Statistics^a

	Results
Mann-Whitney U	4.500
Wilcoxon W	19.500
Z	-1.681
Asymp. Sig. (2-tailed)	.093
Exact Sig. [2*(1-tailed Sig.)]	.095 ^b

From the above result obtained in table 14 it has been observed that the P-value is 0.095 which greater than the alpha value 0.05, thus, we fail to reject the null hypothesis and conclude that the means of the two independent samples are the same. This shows that the people under the study have the same point of views under the unemployment and poverty when we look at the responses of Disagreed.

Table 15: Result Presentation of Unemployment and Poverty Using Mann-Whitney U Test

Test Statistics^a	
	Results
Mann-Whitney U	.000
Wilcoxon W	15.000
Z	-2.619
Asymp. Sig. (2-tailed)	.009
Exact Sig. [2*(1-tailed Sig.)]	.008 ^b

From the above result obtained in table 15 it has been observed that the P-value is 0.008 which less than the alpha value 0.05, thus, we are to reject the null hypothesis and conclude that the means of the two independent samples are not the same. This shows that the people under the study have no the same point of views under the unemployment and the poverty when we look at the responses of Strongly Disagreed.

CONCLUSION

From the analysis carried out in this research work it was concluded that unemployment, drug abuse, kidnapping, weak security and lack of using CCTV in the security system are the factors that cause the prevalence of the insecurity in the research areas, while the poverty, clashes between the farmers and the cattle rearers, bad roads, cattle rustling and illiteracy are the factors that people stay neutral about their impact in the study areas, thus, we cannot directly said the factors are confirmed to be among the factors that cause the prevalence of insecurity in the study areas. Moreover, it was concluded that the five different categories responses of clashes between farmers and cattle rearers not differ significantly. Furthermore, the five different categories responses of cattle rustling not differ significantly, while the other five different categories responses of the remaining factors differ significantly. In addition it was concluded that the strongly agreed responses under poverty have no significant difference with the strongly agreed responses under unemployment, the agreed responses under poverty have no significant difference with the agreed responses under unemployment, neutral responses under poverty have no significant difference with the neutral responses under unemployment, dis-agreed responses under poverty have no significant difference with the dis-agreed responses under unemployment and strongly dis-agreed responses under poverty have significant difference with the strongly dis-agreed responses under unemployment.

RECOMMENDATIONS

- Government and the entire citizens should double up their effort in order to eliminate the occurrences of insecurity in the study areas, because this research work ascertained that the insecurity challenges still exist in the study areas.
- Government should give extra attention to these factors unemployment, drug abuse, kidnapping, weak security and lack of using CCTV in the security system, owing to this research work confirmed that the factors contribute immensely to the prevalence of insecurity in the study areas.
- These factors poverty, clashes between farmers and cattle rearers, bad roads, cattle rustling and illiteracy are about to be totally eliminated in the study areas, thus, government should increase more effort on them.
- This research work shows that poverty is getting close to be among the factors that cause the prevalence of insecurity in the study areas, thus, government should not let that to be happened.
- Government should provide job opportunities to the youths that reside in the affected areas.
- Proper care should be taken by the government on how the people of the affected areas mingling with drugs illegally.

- Government should introduce the use of CCTV in the security system so as to quickly respond to any illegal act attempted at anywhere.
- Recommendation also made that the researchers should conduct more studies on the factors influencing the prevalence of insecurity in Nigeria.

REFERENCES

- Achumba, I. C. et al. (2013). Security Challenges in Nigeria and the Implications for Business Activities and Sustainable Development, *Journal of Economics and Sustainable Development, Vol. 4, No. 2*.
- Ajodo-Adebanjo, A. & U.O. Ugwuoke, (2014). Poverty and the Challenges of Insecurity to Development. *European Scientific Journal, 10(14)*.
- Olaniyi, E. & Ikechukwu, K. (2019). Impact of poverty, unemployment, inequality, corruption and poor governance on Niger-Delta militancy, Boko haram and Fulani herdsmen attacks in Nigeria. *International Journal of Management, Economics and Social Sciences, 8(2), 58-80*.
- Ugo, C.O, et al. (2019). Poverty and Insecurity in Nigeria: An Empirical Study. *International Journal of Legal Studies No. 2 (6) 2019 ISSN: 2543-7097*.