

## Out of Pocket (OOP) Expenses for Enrolees of National Health Insurance Scheme (NHIS) and its Implications on Consumer Satisfaction with Health Services in Bauchi State

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### Abstract

This research examines the impact of NHIS and its implications on health services in Bauchi state with a coverage period between 2013 and 2018, with focus on the formal sector and primary healthcare services. The objective is to examine the implications of out of pocket as it relates to enrolee satisfaction with the policy. The variable was arrived at after a literature mapping and review exercise. The study adopted a quantitative approach (primary methods) of data collection via survey questionnaires, administered to relevant establishments. Justice theory was used as the theoretical framework for the research. Data were analysed using Statistical Packages for Social Sciences. Findings of the study indicate that the variable has significant impact on consumer satisfaction under NHIS primary healthcare facilities in Bauchi State. It is also clear that the management of the predictor variable will lead to an enhanced customer satisfaction. The research recommends among others the need to improve upon the quality of drugs offered under NHIS primary health care facilities in the state which will thereby improve the level of consumer satisfaction with health services.

**Keywords:** *Bauchi state, Consumer satisfaction, Formal sector, NHIS, Out of pocket expenses*

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### Introduction

The background of health insurance has advanced internationally with provision of medical care for the most part in industrialized countries operating beyond primary care as progressive health technologies handle complex, life-threatening ailments, and serious conditions as well as wounds that were once seen as fatal or disabling. Whereas the advancement of new treatments that could bring back functioning and even prolong life is welcomed, the costs of these advanced care and the

usual hospital bed admissions can be excessively high for a lot of people (Anita, & Yong, 2015). The World Health Organization, WHO (2013) estimations shows 150 million persons globally suffer financial ruin each year for the simple reason of out-of-pocket (OOP) payments for their healthcare needs.

Many countries have been operating numerous models of insurance cover and funding schemes to pay for health services founded on their individual socio-economic situations as well as cultural environments. These cover plans whether public or private, have various mechanisms and payment rules reliant upon the type of the insurance cover and the facilities actually covered. Some of the insurance cover/plans need beneficiaries to pay premium charges for registering into the programme as well as having many levels of out-of-pocket expenses like deductibles, or coinsurance. The programme may also need prior approval from the insurance companies to start coverage for certain medical procedures or may create coverage boundaries for the enrolees. Some insurance companies will also apply payment levy for healthcare providers to regulate costs through motivating providers to deliver simply the required services and at the lowest cost possible (Anita, & Yong, 2015).

National or Social Health Insurance (NHI/SHI) is one method for raising and bringing together funds to fund healthcare services for the population of a country, usually in relation to what is considered medically essential. In the later part of the 1880s, Germany's Social Health Insurance ideal was advanced being part of the efforts at building and unifying the nation and also to manage health-related challenges due to industrialization. Example, alcoholism, sexually transmitted diseases and tuberculosis etc. The model was dependent upon household premiums and payroll taxes. The employers and their employees together contribute to these ill health funds and is essential in providing a comprehensive benefit package. In the beginning of the early twentieth century, Beveridge National Health Service ideal in United Kingdom (UK) depended upon common taxes, a national risk pool, and publicly delivered services (Lagomarsino, Garabrant, Adyas, Muga, & Otoo, 2012). These two basic models/ideals have continued today and even adopted by many other systems that endeavour to deliver healthcare coverage for their societies.

## **Review of Relevant Literature**

Literatures relevant to this paper will be empirically reviewed in order to find out what has been done so far, the processes adopted and their limitations (processes and findings). This calculated exercise would help find a gap or gaps (untreated areas/areas requiring further research).

In a cross-sectional survey research carried out at Ahmadu Bello University Zaria using the university staff registered with the NHIS, (Mohammed, Sambo & Dong, 2011) determined "a high satisfaction rate with the health insurance scheme was observed (42.1%)." However, the findings were based mainly on the consumer's/enrolees general knowledge of NHIS, awareness on the contributions deducted from consumers and how these factors affect consumer satisfaction.

Furthermore, the awareness and or general knowledge of NHIS research would have been better appreciated at pre-implementation stages of the policy. Variables for examining practical experiences of consumers in the course of implementation of the policy should have been the priority. Because generally speaking, registered consumers with or without much general knowledge of NHIS operations will still be allowed access to health services when they approach their chosen healthcare provider.

To evaluate consumer satisfaction with services under the National Health Insurance Scheme at a tertiary health facility in North central, Nigeria. A cross-sectional study with a sample size of 421



NHIS enrollees between ages 18 to 60 years was undertaken from December 2015 to January 2016 at Federal Medical-Centre, Keffi, Nasarawa-State, Nigeria by Daramola, Maduka, Adeniran, and Akande, (2017). Consumers were carefully chosen through Systematic random sampling. Information was collected using pretested, anonymous, self-administered, structured questionnaires, with each satisfaction area scored in a five-point Likert scale ordinal response. The dimensions of health services evaluated were based on the typical complaints received from NHIS enrollees such as; hospital accessibility, reception and patient registration process, waiting time, doctors' consultations, availability of prescribed drugs, hospital staff attitudes and hospital facilities.

The overall average satisfaction score was 63.1%. The respondents expressed satisfaction with various aspects of services; reception/registration (65.3%), waiting time (57.4%), doctors' consultation (70.5%), prescribed drugs (55.3%), laboratory services (71.6%), condition of hospital facilities (60.3%) and staff attitude (61.0%). This study showed that the overall patients' satisfaction with services accessed was good.

However, a study of one healthcare facility is grossly inadequate as a basis for generalization for Nasarawa state (or any other state). To have a true reflection of the feelings of consumers, the researchers should have at least covered one facility/hospital per senatorial zone of the state. The study also lacks focus as there was no coverage period for analysis.

A study titled "Service Quality: An Empirical Study of Expectations versus Perception of National Health Insurance Scheme Enrolees in Federal Universities in South East, Nigeria," relates service quality to the expectations of consumers versus the perceptions of Healthcare Providers in the delivery of healthcare services of National Health Insurance Scheme (NHIS). Using a questionnaire based upon a 22-question modified version of SERVQUAL was designed to obtain information about expected versus perceived levels of service quality from consumers and a second 22-question instrument seeking healthcare providers' perceptions of expectations of the consumers, the study concluded that consumers perceived inferior quality of service from Healthcare Providers, who are the gate keepers of NHIS after contrasting the data collected.

The work of Oparah (2018) shows the link between consumer expectations, and quality of service towards attaining satisfaction or otherwise by consumers. However, being a marketing student the research dwelled more on marketing lapses of the policy between HMOs and HCPs (marketing and supply of drugs etc.). The study was also limited to the "Expectations versus Perception of National Health Insurance Scheme Enrolees in Federal Universities in South East, Nigeria."

Kurfi and Aliero (2017) in their work "A Study on Clients' Satisfaction on the National Health Insurance Scheme among Staff of Usmanu Danfodiyo University Sokoto", in which the key objective of their work was to determine the satisfaction or otherwise of NHIS clients in Usmanu Danfodio University. After analyzing the generated data in the cause of their study, the findings revealed that a significant percentage of NHIS clients in Usmanu Danfodio University were not satisfied with the scheme. A Chi-square was used to test the null hypothesis which revealed that the clients of NHIS in Usmanu Danfodio University were not satisfied with the scheme. The null hypothesis was accepted after testing the result. The chi-Square stood at (1.499), with 1 degree of freedom and an Asymp significance value of (0.221).

This finding conforms to the findings of Mohammed et'al (2011), in a closely related study in Ahmadu Bello University Zaria which revealed low satisfaction of NHIS clients. It is also in

conformity with the findings of AbdulQadir (2012), on the same problem in Niger state which equally arrived at very low clients' satisfaction. Moreover, a study in Plateau state by Onyedibe et al (2012) equally reported clients' dissatisfaction with NHIS.

However, the result contrasts with the submissions of Gup et. al. (2012) who studied clients' satisfaction in Enugu a city in South Eastern Nigeria, Akande, Salaudeen, Babatunde, Durowade, Agbana, & Olomofe, (2012) of a study in Kwara State as well as a study by Jadoo, Sharifa, Zafar, & Ammar, (2012) on the problem in Turkey. All the three studies held that clients are relatively satisfied with National Health Insurance Scheme. Sequel to the above, one important point that we need to take into consideration is that all those that said clients are not satisfied were studies conducted in Northern part of Nigeria while most of those that presented relative satisfaction were all from the southern part of the country or outside Nigeria. It is also noteworthy that none of the studies was conducted in the North-East of Nigeria not even Bauchi as a state.

### **Theoretical Framework -Structural Functionalism**

The American sociologist Talcott Parsons introduced structural–functional approach. Talcott Parsons began writing in the 1930s and contributed to sociology, political science, anthropology, and psychology. Any process or set of conditions that does not contribute to the maintenance or development of the system is said to be dysfunctional. In particular, there is a focus on the conditions of stability, integration, and effectiveness of the system.

As a structural theory, functionalism sees social structure or the organization of society as more important than the individual. Functionalism is a top down theory. Individuals are born into society and become the product of all the social influences around them as they are socialized by various institutions such as the family, education, media and religion.

Functionalism sees society as a system; a set of interconnected parts which together form a whole. There is a relationship between all these parts and agents of socialization and together they all contribute to the maintenance of society as a whole. Social consensus, order and integration are key beliefs of functionalism as this allows society to continue and progress because there are shared norms and values that mean all individuals have a common goal and have a vested interest in conforming and thus conflict is minimal.

Talcott Parsons viewed society as a system. He argued that any social system has four basic functional prerequisites: adaptation, goal attainment, integration and pattern maintenance. These can be seen as problems that society must solve if it is to survive. The function of any part of the social system is understood as its contribution to meeting the functional prerequisites.

Adaptation refers to the relationship between the system and its environment. In order to survive, social systems must have some degree of control over their environment. Food and shelter must be provided to meet the physical needs of members. The economy is the institution primarily concerned with this function.

Goal attainment refers to the need for all societies to set goals towards which social activity is directed. Procedures for establishing goals and deciding on priorities between goals are institutionalized in the form of political systems. Governments not only set goals but also allocate resources to achieve them. Even in a so-called free enterprise system, the economy is regulated and directed by laws passed by governments. Integration refers primarily to the 'adjustment of conflict'. It is concerned with the coordination and mutual adjustment of the parts of the social system. Legal norms define and standardize relations between individuals and between institutions, and so reduce the potential for conflict. When conflict does arise, it is settled by the judicial system and does not



therefore lead to the disintegration of the social system. Pattern maintenance refers to the 'maintenance of the basic pattern of values, institutionalized in the society'.

Parsons claim that society is the way it is as social structures are interconnected and dependent on each other. Functionalists therefore see change as evolutionary, as change in one part of society will eventually occur in another. Social ills e.g. crime and deviance, have disabling effects on society and gradually affect other parts. They recognise that interconnections between various parts of society occur due to a value consensus. Parsons believes that as society changes, it develops and the pattern variables within it will become more complex. Change, therefore, trickles throughout society. Parsons summed this up as the 'Organic Analogy'.

### **The Relevance of this Theory**

The theory is relevant to this study as it supports NHIS as a public health policy. Because Structural-Functionalism contributes to the maintenance or development of the system, without which the system would be dysfunctional. Specifically, there is a focus on the conditions of stability, integration, and effectiveness of the system. These are in line with the ideals of a public health policy such as the national health insurance scheme.

As a structural theory, functionalism sees social structure or the organization of society as more important than the individual. This is in line with the NHIS being a policy for societal (public) health.

Functionalism sees society as a system; a set of interconnected parts which together form a whole. There is a relationship between all these parts and agents of socialization and together they all contribute to the maintenance of society as a whole. The NHIS policy is one geared towards maintenance of society as a whole. Because if the segment of society that cannot afford health care (and they are in the majority) are left to cater for themselves by relying on out of pocket the system would eventually suffer the consequences.

### **Objective**

Examine the implications of NHI on OOP medical expenses of consumers under primary healthcare facilities in Bauchi state.

### **Hypothesis**

Out of Pocket expenses have significant influence on consumer satisfaction with NHIS under primary healthcare facilities in Bauchi state.

### **Methodology**

The research is designed based on the quantitative approach; utilizing survey design of Likert five scale questionnaire. The survey design adopted was opted for because the design uncovers, interprets and integrates data, as well as points to their implication in interrelationships (Cohen & Manion, 1986). It allows for random sampling and the use of questionnaires. It is also used to study people's attitude, feelings and opinions (Babbie, 1985). The survey approach using questionnaire is believed to be the most appropriate technique in collecting the primary data as noted by Olakunle (2004), Sekaran (2000) and Yang (2010).



Thus, the quantitative aspect of the research design was based on a structured questionnaire, which used correlation analysis via Statistical Packages for Social Sciences (SPSS) because it is a method of carrying out statistical evaluation utilized to study the strength of a relationship between two numerically measured, continuous variables. This analysis is also useful when the researcher wants to establish if there are possible connections between variables.

Sample size from the population is 382 persons based on the Krejcie and Morgan table for determining sample size. This is considering the population (registered NHIS enrollees for Bauchi state as at August, 2019). A total of 382 questionnaires were administered to the respondents across the state. The sample is based on the senatorial districts in the state out of which the state was clustered and the selection of respondent was based on the population proportion in each district.

### Presentation of Results

For this study, a total of three hundred and eighty-two (382) questionnaires were administered by the researcher, with the help of research assistants. Three hundred and fifty-two (352) were duly filled and returned, thus used in this analysis.

### Correlation Analysis

The correlation matrix seeks to determine the relationship that exists between variable used in the research. Table 1 indicates the relationship between COMSU and OOP is a negative relationship with OOPEXP (coefficients of -0.516). The negative relationship implies an inverse relationship indicating an increase in one variable will lead to a decrease in the other variable. This implies that an increase in consumers' satisfaction was unsatisfied with out of pocket expenses on the health services were attributed by the quality of services delivery by the hospitals under NHIS. While the positive value shows that the consumer level of expectation and subsequent spending resulted from out of pocket has led to consumer satisfaction with the health services by NHIS accredited Hospital in Bauchi State.

In conclusion, from the computed result, the correlation coefficient between the correlation coefficient between Out of pocket Expenses and Consumer Satisfaction is inverse and significance at 5% level.

**Table 1 Correlations Analysis**

		COMSU	EQUITY	QUALITY	CONSUMEREXP	OOPEXP
Pearson Correlation	COMSU	1.000	.642	.832	.731	-.516
	OOPEXP	-.516	.643	.504	.544	1.000

Source: Author's Computation using SPSS, 2021

### Hypothesis Testing

Hypothesis was validated using the result of regression analysis in the table II below to determine the relationship among the variable under investigation (Consumer Satisfaction with Health Services of NHIS Hospitals in Bauchi State).

**Table II Regression Analysis**



Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.255	.239		13.634	.962
	OOPEXP	-.175	.073	.135	3.567	.041

Source: Author's Computation using SPSS, 2021

## 1. Out of Pocket Expenses and Consumer Satisfaction with Health Services

### Hypothesis 1

H<sub>1</sub>: Out of Pocket expenses has significant influence on consumer satisfaction with NHIS under primary healthcare facilities in Bauchi State. The regression result shows a coefficient of  $\beta_4 = -0.175$ ;  $p = 0.041$ . This indicated an inverse and significant relationship between out of pocket expenses and consumer satisfaction with health NHIS under primary healthcare facilities in Bauchi State. Since  $p$  - value = 0.041, which is less than 0.05, the model fits the hypothesis and therefore the result of this supports Alternative (H<sub>1</sub>) that Out of Pocket expenses has significant influence on consumer satisfaction with NHIS under primary healthcare facilities in Bauchi State. The Null hypothesis (H<sub>0</sub>) is rejected and the Alternate hypothesis (H<sub>1</sub>) which states Out of Pocket expenses has significant influence on consumer satisfaction with NHIS under primary healthcare facilities in Bauchi State is here by accepted. This implied that there is significant relationship between Out of Pocket expenses and consumer satisfactions under NHIS primary healthcare facilities in Bauchi State

### Discussion of Findings

The impact of implementation of NHIS and its implications on health services in Bauchi state the regression result is presented below.

#### 1 Out of Pocket Expenses and Consumer Satisfaction with Health Services

The findings from the analysis reveal that the out of pocket expenses has an inverse and significant impact on consumer satisfaction under NHIS primary healthcare facilities in Bauchi State. This result implies OOP significantly influenced consumer satisfaction with NHIS health services in Bauchi State. The result is in line with the findings of previous studies, which reveals that Equity has a significant relationship with consumer satisfaction on health services (Oparah, 2018, Kurfi and Aliro, 2017; Mohammed *et al*, 2011; Abdulqadir 2012; onyedibe *et al.*, 2012).

### Conclusion

The finding indicates OOP expenses has inverse and significant impact on consumer satisfaction with health services. This means there is still need to improve on the quality of drugs and health care services under NHIS primary health facilities. The implication of this finding is that consumers are given the average access or there could be preference for OOP patients.



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