



Assessment of the quality of public convenience in Minna: A case study of public toilets in Kasuwan-Gwari

Habila Jerry^{1,2✉}, Isaac Ibelieve¹, Salami Hafiz³

¹Department of Urban and Regional Planning, Federal University of Technology, Minna

²Department of Urban and Regional Planning, Federal Polytechnic, Nekede, Imo State

³Department of Urban and Regional Planning, University of Ibadan

✉ **Corresponding author**

Department of Urban and Regional Planning, Federal University of Technology, Minna / Department of Urban and Regional Planning, Federal Polytechnic, Nekede, Imo State

Email: jerroh01@gmail.com

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General Note

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ABSTRACT

The adequacy and safety of and satisfaction with public toilets have become a global issue. This is particularly so with the inclusion of sanitation in the MDGs and SDGs. Access to public toilets is now an inalienable right. Sanitation has continued to occupy the forefront in global effort towards sustainable development. This study aimed at assessing the users' perception of the quality of

toilet facilities in Kasuwan-Gwari. The objectives are to assess the availability of water and hand washing materials in the toilets, observe the hygiene condition of the toilet surroundings and evaluate the level of satisfaction of the toilets users with toilet facilities in the study area. The study adopted the convenience sampling technique to sample 130 users. Analysis was conducted with the aid of Statistical Package for Social Sciences (SPSS), and the data are presented with the aid of frequency tables, graphs and charts. This study unveiled that public toilet facilities have not been effective in the delivery of sanitation services to the users in Kasuwan-Gwari of Minna, Niger State. Although the privacy of users is guaranteed in the public toilets, they expressed strong dissatisfaction with these facilities as a result of dirtiness, bad odour nuisance from flies and poor maintenance of the facilities. Proximity and lack of alternative are the main reasons for using these toilets. The users express the willingness, readiness and ability to pay an average of N40 to use improved toilets in the study area. Therefore, involvement of the private sector in the provision of toilet facilities and further in-depth study on the health impacts of using public toilets in the study area is recommended.

Keywords: Toilet facilities, Sanitation, Convenience, Hygiene, Open defecation

1. INTRODUCTION

Public convenience refers to toilets that are provided by public agencies to allow people meet their sanitary needs in public places such as markets, shopping areas and transport centres (Njoku, 2006; Lenason, 2009). Public sanitary facilities are crucial infrastructure necessary for the social wellbeing and dignity of city inhabitants (UN, 2008; Makama, 2015). Asabia (2009) argued that the provision of properly managed and functional public convenience facilities will consolidate sanitary efforts of the government, as well as reduce sanitary-related health problems. This is in consonance with the submission of UNICEF (2009) that human excreta need to be properly disposed through modern methods that are socially and culturally acceptable to the people. Agbo *et al.* (2012) maintained that apart from its availability, the facilities should also meet both the subjective and objective demands of the end-users. However, Oyinloye and Oluwadare (2015) observed that there is a lack of improved public convenience facilities in most public places in Nigerian cities. They maintained that poor quality of public convenience facilities is responsible for open defecation and urination and the associated offensive odour in Nigerian public places. This assertion is corroborated by Awoyinfa (2012) and Eromososele (2012) in their studies of public convenience facilities in Lagos, Nigeria. Whereas Eromososele (2012) maintained that most public toilets in Lagos are unhygienic, decrepit and in a state of disrepair, Awoyinfa (2012) argued that using public convenience in Lagos is synonymous with 'purchasing infections'.

Statement of Problem

Access to decent and clean convenience facilities is a basic need (UNICEF, 2014) as well as a right (UN, 2010; WHO, 2011). The rights approach to the provision of public toilets recognised that public sanitary facilities are a right and its denial constitutes a gross violation of human rights (UN, 2010). Despite being a fundamental right, UNICEF (2014) observed that almost one-third of the world's population suffer on a daily basis from lack of access to clean, hygienic and functioning toilets. The situation is more worrisome in Nigeria, where FMWR and UNICEF (2016) citing World Bank (2012) noted that:

Around 46 million people in Nigeria defecate in the open. Another 56million people are estimated to be added during the next ten years. This means a total of 102 million people or 20 million households should have access to a toilet and use it. Around 122,000 Nigerians and 87,000 children under the age of 5 die each year from diarrhoea; nearly 90% is directly attributed to water, sanitation and hygiene problems. A comprehensive review of 21 studies, covering several countries found a 36% reduction in diarrhoeal morbidity due to improved sanitation. Nigeria loses N455bn annually due to poor sanitation.

Goal 7 (target 3) of the Millennium Development Goals (MDGs) aimed at halving the proportion of the universal population without sustainable access to clean and safe drinking water and sanitation by 2015 (UN, 2000). Similarly, Goal 6 of the Sustainable Development Goals (SDGs) is to ensure availability and sustainable management of water and sanitation for all (Dodds, 2015). What this means is that sanitation has continued to occupy the forefront in global effort towards sustainable development. Minna is no exempt from this global sustainability agenda. It is against this background that this study seeks to assess the quality of public toilets/convenience in Kasuwan-Gwari, Minna.

Aim and Objectives

The aim of this study is to assess the quality of public toilets in Kasuwan-Gwari, Minna. The objectives of the study are as follows:

- i. Assess the availability of water and hand washing materials in the toilets
- ii. Observe the hygiene condition of the toilet surroundings.
- iii. Evaluate the level of satisfaction of the toilets users with toilet facilities in the study area

The Study Area

Minna is a misspelling of the Gbagyi word 'Myina' which was the original name, meaning a cottage on the hill top (Fabiya, 1984 cited in Sanusi, 2011). By implication, the original settlers of Minna were on the hilltops of the area. Sanusi (2011) reported that the hills provided secured home for the Gwari settlers, the indigenous owners of Minna and protected them from the invasion of the Nagwamatse led group from Kotangora town; a settlement some 160km away from Minna. He, however, noted that from about 1905 when railway lines reached Minna and when effective colonial occupation started giving security to Minna, residency on hill tops ceased to be a norm.

According to Maxlock (1979), Minna is located on Latitude 9°37' North and Longitude 6°33' East and occupies a land area of about 884 hectares. It is about 145km by road from Abuja, the Federal capital of Nigeria. Minna metropolis has grown to engulf suburb settlements such as Bosso, Maitumbi, Dutsen Kura, Kpakungu, Shango and Chanchaga (Popoola *et al.*, 2016). The map of the study area is presented in Figure 1.

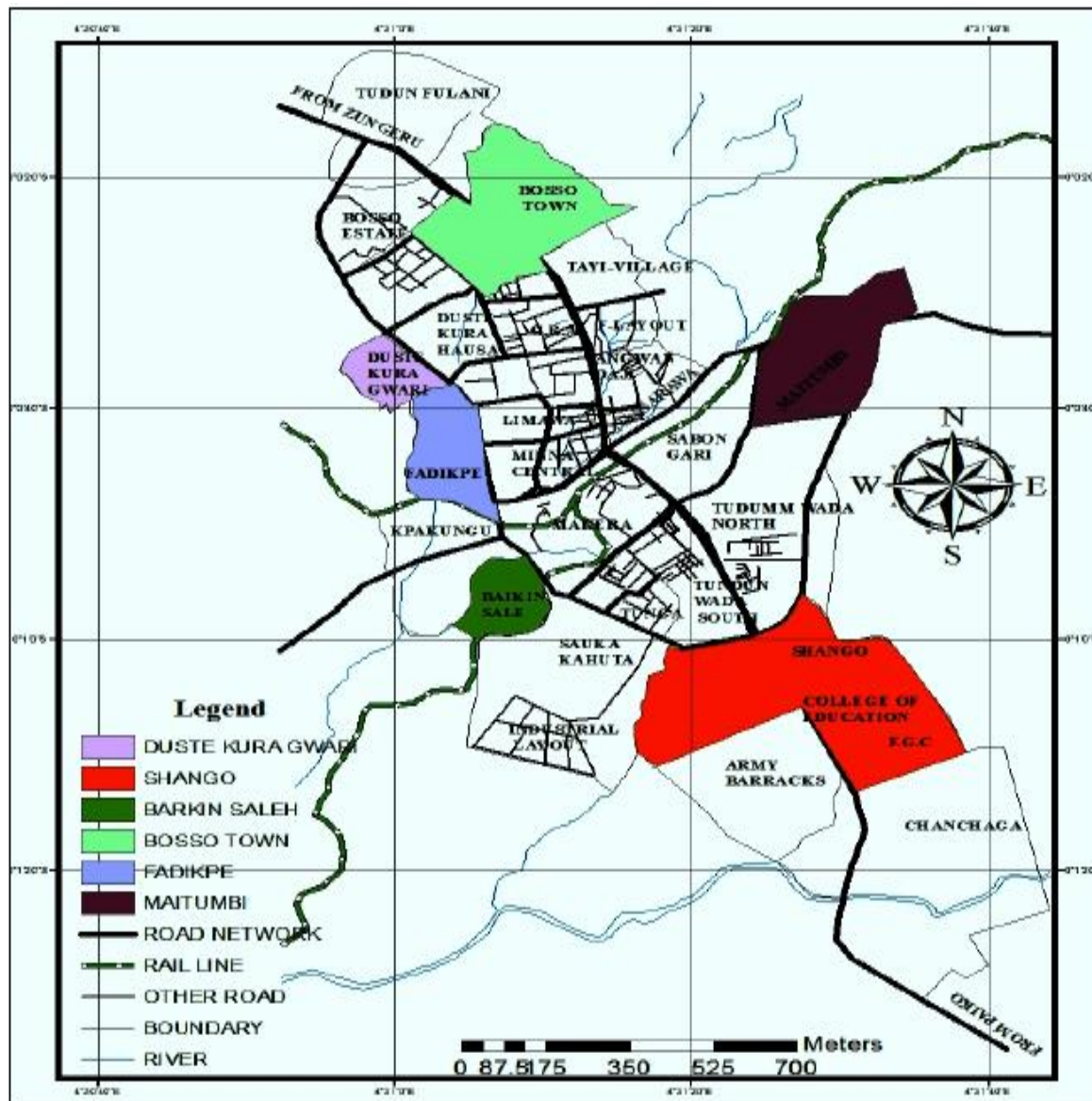


Figure 1 Street Map of Minna, Niger State Source: Popoola *et al.* (2016)

Literature Review

Toilets are significant components of the Goal 7 (target 3) of the Millennium Development Goals (MDGs) and Goal 6 of the Sustainable Development Goals (SDGs) whose aim is to halve the proportion of the universal population without sustainable access to clean and safe drinking water and sanitation (UN, 2000; Dodds, 2015). The significance of the provision of adequate, safe and accessible public toilets have been recognised by Makama (2015) who noted that toilets are not just sanitary facilities but that they are also a symbol of the level of development. However, the task of achieving this target has assumed a Herculean nature. In spite of being a right, more than 30% of the global population experience lack of access to clean, hygienic and functioning toilets (UN, 2010; UNICEF, 2014). This poses a great number of health risks to the users of public toilets. UNICEF (2014) has also observed the danger of lack of clean, safe and accessible public toilets. For example, FMWRN & UNICEF (2016) traced 90% of infant mortality in Nigeria to water, sanitation and hygiene problems.

The World Bank (2012) cited in FMWR & UNICEF (2016) observed that the risk of diarrhoeal-related deaths reduces by about 36% with an improvement in toilet facilities. The situation becomes worse in urban areas where alternative means of convenience is usually by open defecation and urination (WHO, 2011; UNICEF, 2014). Open defecation and urination is usually accompanied with a plethora of health issues such as air pollution through bad odour. This menace was clearly captured by Awoyinfa (2012) who observed that inadequate provision and poor maintenance of toilet facilities is a serious problem in urban areas of Nigeria, arguing that this has led to the adoption of open defecation practices by those who are pressed. Precisely, Oyinloye and Oluwadare (2015) maintained that most, if not all, urban centres in Nigeria experiences lack of improved public convenience facilities, emphasising that this is responsible for open defecation. This is in consonance with World Bank's (2012) observation that more than 46million Nigerians defecate in the open (cited in FMWR& UNICEF, 2016). It is against this background that this study seeks to study the quality of public toilets in Kasuwan-Gwari, Minna, Niger State.

2. METHODOLOGY

Sources and methods of data collection

The data for this study were collected from primary and secondary sources. The secondary sources include data obtained from books, journals, conference proceedings and reports on the global state of sanitation as well as the state of sanitation in Nigeria. The primary data, on the other hand, were collected directly from the field through a well-structured questionnaire as well as direct personal observation.

Sampling technique

Convenience sampling was adopted to sample 130 participants for the study. The choice of convenience sampling was based on the fact that people who are pressed exhibit similar characteristics. Convenience sampling was necessary since there is no available register of the population of the users of the public toilets in the study area.

Method of data analysis

Descriptive statistical techniques were used to analyse the data obtained from the questionnaire survey. The study data are presented in form of frequency tables, charts, graphs and plates. Analysis was carried out with the aid of the Statistical Package for the Social Sciences (SPSS).

3. DATA ANALYSIS AND PRESENTATION

Gender of the Respondents

Table 1 Gender of the respondents

Gender	Frequency	Percentage
Male	51	39.23
Female	79	60.77
Total	130	100

Source: Authors' Field Survey (2019)

As Table 1 indicates, majority of the users of public toilets in the study area (60.77%) are female(s). Consequently, men account for 39.23% of the users of public toilets in Kasuwan-Gwari. This female dominance in the usage of public toilets in the study area may

be linked to the fact that women tend to exhibit lesser retention when they are pressed. Thus, they tend to make use of the available toilets in order to ease themselves.

Age Distribution of the Respondents

Table 2 shows the age distribution of the users of public toilet in the study area. Table 2 shows that 70% of the toilet users (representing the majority) fall within the age bracket of 21-30years old. Those between the age brackets of 31-40years and 11-20years account for 12.31% and 11.54% of the respondents respectively. Furthermore, those above 40years old and less than 10years old account for 3.85% and 2.31% of the respondents respectively. This implies that those between 21-30years old uses public toilets more, while those below 10years old use public toilets less in the study area.

Table 2 Age distribution of the respondents

Age (years)	Frequency	Percentage
Less than 10	3	2.31
11-20	15	11.54
21-30	91	70.00
31-40	16	12.31
Above 40	5	3.85
Total	130	100

Source: Authors' Field Survey (2019)

Highest Educational Qualification

As depicted in Table 3, SSCE is the highest educational qualification of majority (54.62%) of the users of public toilets in Kasuwan Gwari. This was followed by those whose highest educational qualification is primary certificate, representing 23.85% of the respondents. Table 3 also shows that 8.46% of the respondents have only attained informal education, 10% are holders of OND/ND/NCE, while 2.31% have attained HND/BSc. However, only about 0.77% of the respondents have attained postgraduate degrees. In essence, the result in Table 3 indicates that those with higher level of educational attainment have a lower propensity to use public toilets in the study area.

Table 3 Highest educational qualification

Educational level	Frequency	Percentage
Informal education	11	8.46
Primary certificate	31	23.85
SSCE	71	54.62
OND/ND/NCE	13	10.00
HND/BSc	3	2.31
Postgraduate Degree	1	0.77
Total	130	100

Source: Authors' Field Survey (2019)

Users' Perception of the Condition of Public Toilets in Kasuwan-Gwari

The perception of majority of the users of Public toilets in Kasuwan-Gwari (50%) is that the toilets are in poor condition (Figure 2). Similarly, about 22.31% of the users reported that the toilets are in a very bad condition. However, 21.54% of the respondents perceive that the toilets are in fair condition. On the contrary, only about 2.31% and 3.85% of the respondents perceive the condition of the toilets as very good and good, respectively. Consequently, it can be inferred that about 57% of the respondents are dissatisfied with the condition of public toilets in the study area.

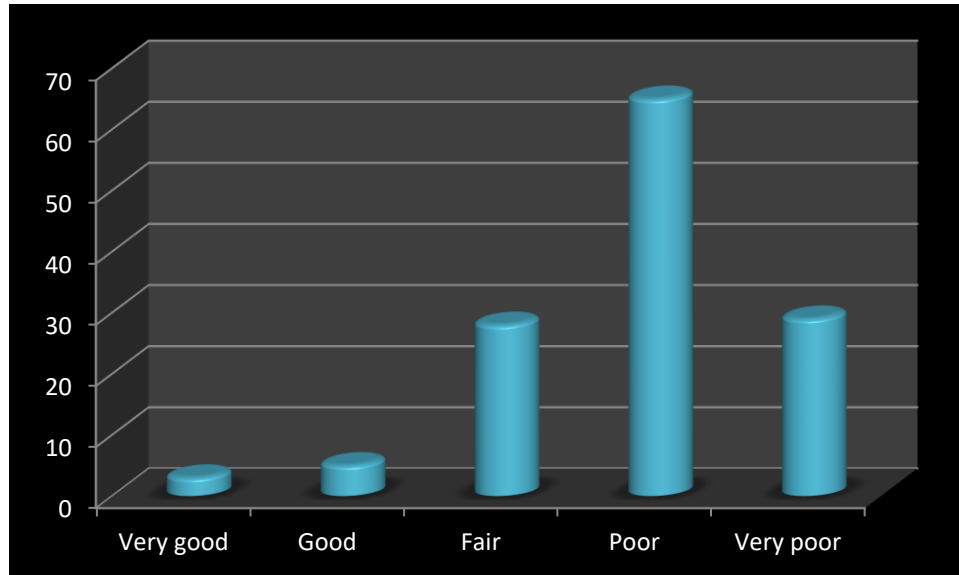


Figure 2 Users' perception of the condition of public toilets in Kasuwan-Gwari Source: Authors' Field Survey (2019)

Challenges Faced by the Respondents in Using Public Toilets

Table 4 present the information on the challenges faced by the respondents in using public toilets in the study area. Majority of the respondents see dirty environment as a challenge, with more than 54.62% of the respondents strongly agreeing and 35.38% agreeing that dirty environment pose a challenge to them in using public toilets in Kasuwan-Gwari. Similarly, bad odour appears to be a major challenge to public toilet users with 48.46% and 29.23% of the respondents strongly agreeing and agreeing respectively that bad odour is a challenge to them. Furthermore, 68.46% and 13.85% of the respondents agreed and strongly agreed respectively that nuisance from flies is a serious challenge to them while using public toilets in the study area. However, 0.77% of the respondents disagreed and 0.77% strongly disagreed that flies constitute a nuisance to them while using public toilets in the study area. Those who do not experience nuisance from flies are those who, *inter alia*, reportedly use toilets with disinfectants (as shown in Figure 3). In terms of maintenance culture, 56.15% and 40% of the respondents strongly agreed and agreed respectively that poor maintenance of public toilets in the study area is a challenge to them while using the facilities. It is, however, worthy of note that despite the aforementioned challenges, privacy of users is guaranteed in the use of public toilets in the study area. For instance, 46.92% and 43.85% of the respondents strongly disagreed and disagreed respectively that there is privacy invasion while using public toilets in Kasuwan-Gwari.

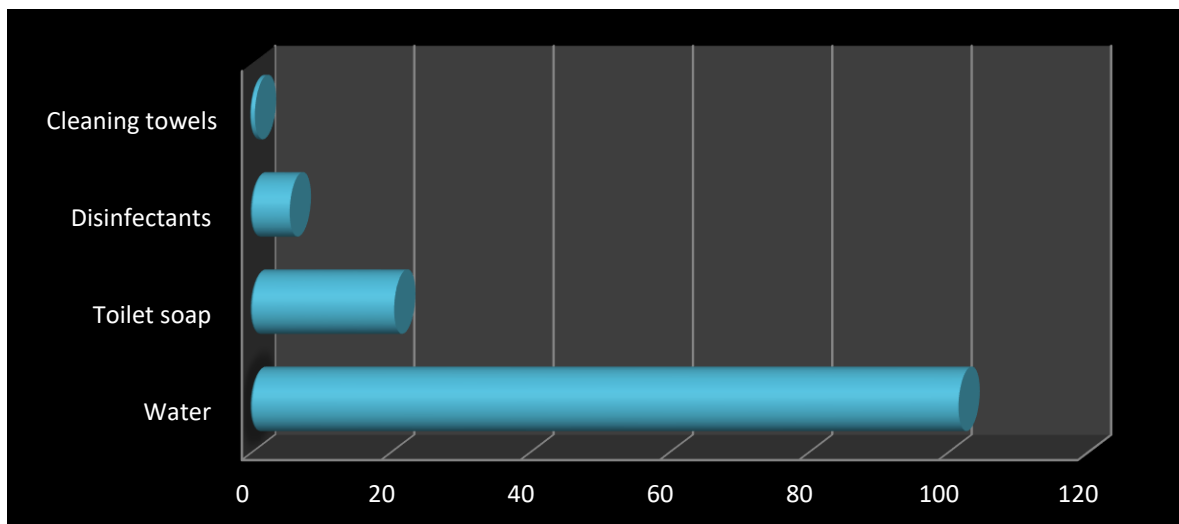


Figure 3 Availability of sanitary and other cleaning materials Source: Authors' Field Survey (2019)

Table 4 Challenges faced by the respondents in using public toilets

Challenges	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
Dirty environment	46(35.38%)	71 (54.62%)	7 (5.38%)	5 (3.85%)	1 (0.77%)
Bad odour	63 (48.46%)	38 (29.23%)	13 (10.00%)	12 (9.23%)	4 (3.08%)
Nuisance from flies	18 (13.85%)	89 (68.46%)	21 (16.15%)	1 (0.77%)	1 (0.77%)
Poor maintenance	73 (56.15%)	52 (40.00%)	1 (0.77%)	3 (2.31%)	1 (0.77%)
Privacy invasion	1 (0.77%)	7 (5.38%)	4 (3.08%)	57 (43.85%)	61 (46.92%)

Source: Authors' Field Survey (2019)

Reasons for Using Public Toilets

As can be seen in Table 5, the toilet users cited proximity to the toilets as the major reason for using public toilets as reported by 57.69% of the users. However, 35.38% of the users of the public toilets in Kasuwan-Gwari are actually using those toilets because they have no other alternative available to them. More so, 3.85% of the users cited privacy as the reason for using public toilets in the study area. Worthy of note is that free access (1.54%) and cleanliness (1.54%) are the lowest reasons for the use of public toilets in the study area by the respondents. In other words, the free access and cleanliness are cited by the respondents as lesser reasons for using public toilets in Kasuwan-Gwari. It can be inferred from this that the users are willing to pay if better sanitation services are rendered to them.

Table 5 Reasons for using public toilets

Reason	Frequency	Percentage
Proximity	75	57.69
Free access	2	1.54
Lack of alternative	46	35.38
Cleanliness	2	1.54
Privacy	5	3.85
Total	130	100

Source: Authors' Field Survey (2019)

Availability of Sanitary and Other Cleaning Materials

As can be observed from Figure 3, majority (78.46%) of the respondents stated that water is the most available sanitary material available in the toilets. Furthermore, 16.15% of the respondents stated that toilet soaps are provided to them in the public toilets that they use. Worthy of note is the fact that 4.6% of the respondents stated that there are disinfectants in the public toilets that they use. However, only 0.77% of the respondents reported that there are cleaning towels in the public toilets that they use. The high level of water availability may be linked to low cost of providing water in the public toilets in the study area, as oral interview revealed that 20liters of water is around N20-N30 in the area.

Willingness to Pay for Cleaner Toilets

As can be seen from Table 6, 29.23% of the respondents expressed willingness to pay for cleaner toilets, while 57.69% emphasised their willingness to pay for subsidised sanitary services only. However, 3.85% of the respondents expressed that they are not willing to pay for toilet services, feeling that it is the responsibility of the State to provide such services to the masses free of charge. Overall, about 87% of the respondents are willing to pay for cleaner toilets.

Table 6 Willingness to pay for cleaner toilets

Willingness	Frequency	Percentage
Willing to pay	38	29.23
Willing to pay only if subsidised	75	57.69
Not sure	12	9.23
Not willing to pay	5	3.85
Total	130	100

Source: Authors' Field Survey (2019)

Average Amount the Respondents Are Ready to Pay for Toilet Usage

The information in Figure 4 shows the average amount that those who expressed their willingness to pay (in Table 6) are actually able to pay for toilet services in the study area. Majority of the respondents (that is, 64.80%) stated that they are ready to pay N40 per capita per usage. However, 19.20% of the respondents maintained that they are ready to pay a lesser amount (N20). Also, 14.40% of the respondents reported that they can pay up to N60 for using public toilets in the study area. Only about 1.60% of the respondents stated that they are ready to pay more than N60 for using public toilets in the study area. Therefore, the information in Figure 4 corroborates Table 6 which stated that majority of the respondents are only willing to pay for subsidised toilet services.

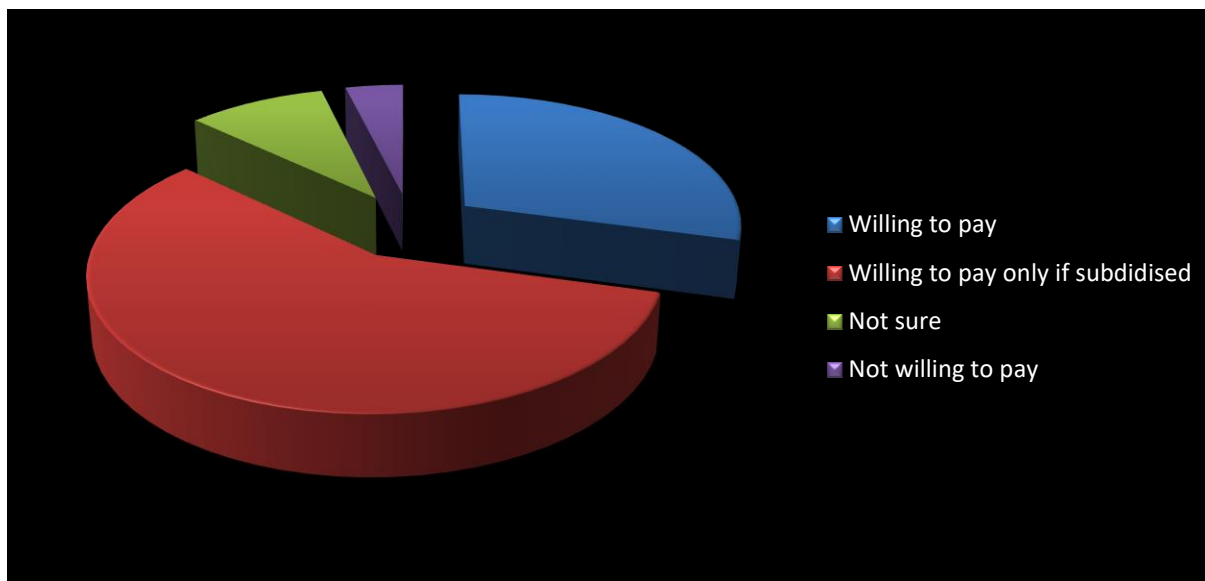


Figure 4 Average Amount the Respondents are ready to pay for Toilet Usage Source: Authors' Field Survey (2019)

4. CONCLUSION AND RECOMMENDATIONS

As UN (2000) and Dodds (2015) have noted, sanitation is one of the key elements of the United Nations' Millennium Development Goals (MDGs), and consequently, Sustainable Development Goals (SDGs). Access to sanitation is seen as a right (UN, 2010). This study has, however, unveiled that public toilet facilities have not been effective in the delivery of sanitation services to the users in Kasuwan-Gwari of Minna, Niger State. Although the privacy of users is guaranteed in the public toilets, they expressed strong dissatisfaction with these facilities as a result of dirtiness, bad odour nuisance from flies and poor maintenance of the facilities. Proximity and lack of alternative are the main reasons for using these toilets. The users express the willingness, readiness and ability to pay an average of N40 to use improved toilets in the study area. Therefore, stemming from these findings, the study recommends the engagement of the private sector in the provision of improved toilet facilities to the users in the study area. This will be favourable to both the providers and the users, since the users are willing to pay certain amount for using the toilets. Furthermore, provision of adequate toiletries to the users by the government in order to improve the satisfaction of the users with the existing toilet facilities. Finally, the study did not evaluate the health implications of using public toilets in the study area. Therefore, further studies into the health impacts of using public toilets in Kasuwan-Gwari are highly recommended.

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