

Service Quality in National Health Insurance Scheme Healthcare: A Case Study of WA Municipal National Health Insurance Scheme in the Upper West Region of Ghana

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Abstract

This study was conducted to find out the services quality of Wa municipal mutual health insurance scheme operations in its competitive environment. The study measured customers' perception of service quality using SERQUAL instrument. The five dimensions of service quality, being tangibles, reliability, responsiveness, assurance and empathy, were used. Based on random sample of 398 clients and a survey instruments that measure the five dimensions of quality attributes, the result of the study revealed that the level of service quality in the WMHIS is moderate. Meaning the level of service they receive is lower than what they expect indicating there is no satisfaction. The findings show comparatively high customer expectations and the management involved is presently not meeting the expectations as significant quality gaps were found in the areas of all the five dimensions. In conclusion, the study suggests that efforts should be made to improve service quality in the WMHIS.

Keywords: Service Quality, Customer Satisfaction, Expectation, Dimensions, Ghana.

1.1 INTRODUCTION

The Government of Ghana as part of its poverty reduction strategy for the past decade worked towards providing easy access to health care services. To make it more affordable for all Ghanaians the National Health Insurance Scheme (NHIS) as a pro-poor programme was introduced in 2003 through the National Health Insurance Act (Act 650 of 2003) and the Legislative Instrument (LI 1809 of 2004). For efficient and improved healthcare provision the National Health Insurance Council identified strategic initiatives in 2007 to guide the schemes in their operations. These initiatives were to accelerate the pace of registration and issuance of ID Cards ,Transform NHIS into a solution based organisation ,Ensure financial sustainability of the scheme,Develop and implement effective communication strategy andImprove portability and ensure quality of service.

In meeting the above guide/initiatives, the Wa Municipal scheme was established as mandated to register, mobilize revenue, allocate the revenue collected and ensure provision of prescribed benefit package. The operation of the scheme however, is faced with some challenges.

The purpose of this research is to apply the SERQUAL as a service quality instrument to test the service quality in the national health insurance scheme in Upper West region of Wa as a case in point. This objective is consistent with growing sentiments for developing context-specific (e.g., industry and/or culture-specific) service quality measures in light of the difficulties involved with universal/global measures (Aldlaigan and Buttle, 2002; Babakus and Boller, 1992; Robinson, 1999; Winsted, 1997).

1.1.1 The Objectives of the Study

The general objective of this research is to measure the service quality of the National Health Insurance Scheme in Wa municipal. The specific objectives of this research are as follows:

To identify the service quality dimensions as perceived by customers/clients of NHIS in the Wa Municipal Mutual Health Insurance Scheme.

To determine the relationship between service quality and clients/patients satisfaction in the Wa municipal national health insurance scheme.

1.1.2 Research Questions

This research will attempt to answer the following questions for purposes of achieving the stated objectives:

(a) What is the level of service quality in the Wa NHIS? Is it poor, moderate or high level?(b) How is service quality measured in the NHIS health delivery systems of the Wa municipality?

Is there any positive effect of Service Quality on the level of the customersatisfaction in WMHIS?

1.1.3 Justification of the study

The theoretical importance of this study rises from the fact that it clarifies the quality of health service concept and how it measure. With regard to the practical importance of this study, it provides a scale for the quality of health services at Ghana health centres with the accepted reliability and validity indicators and also it reveals the level of quality of health services provided to Ghanaians in these centres. This study also provides guidance for those involved in these health centres to enhance the quality of health services to the users through its recommendations based on the findings.

The research is also relevant on the basis that it will serve as an empirical foundation for further research work into problems of health service delivery in Ghana. It will also sensitise the health centre, NHIA and other stakeholders to act decisively to improve the quality of health services in the country. This may lead to patients' satisfaction and loyalty. Finally the study will enable the health authorities to design pragmatic policies that will help in a long way to improve upon the health status of the inhabitants within the area.

1.1.4 Scope of the study

The area of the study is service quality in national health insurance scheme. It focuses on the dimensions of service quality from clients/potential patients' perspectives. It does not focus on the country context as a whole but as a case study. The study was conducted at the Wa municipal of Upper West Region in Ghana .

1.2 LITERATURE REVIEW

1.2.1 Definitions, Model and Measurement of Service Quality

There are various definitions of service quality derived from uncountable authors. Service quality can be defined as the conformance to customer requirements in the delivery of a service (Chakrabarty, Whitten, and Green, 2007). Service quality is important to service firms because it has been shown to increase profit levels, reduce costs, and increase market shares (Parasuraman, Zeithaml, and Berry, 1985). Moreover, service quality has been shown to influence purchase intentions (Sullivan and Walstrom, 2001).

Gronroos (1984) asserts that there are two distinct constituents of service quality, technical and functional. Technical quality focuses on the technical accuracy of service operations and procedures. Functional quality alludes to the manner in which or process by which the health care is delivered.

Many researchers argue that functional service quality may be seen by the customer as the most important factor in a service transaction, given their frequent inability to judge technical quality of service (Asubonteng et al., 1996). Particularly in a health care context, technical quality may be difficult for a consumer with no technical expertise to evaluate, whereas functional quality (the manner in which the service is delivered) can, and will, be evaluated by the consumer (Gronroos, 1984). Because it may be difficult for the consumer to assess technical quality, they tend to rely on the "how" of service delivery, and attributes such as empathy, reliability, responsiveness associated with the service encounter become critical (Babakus and Mangold, 1992; Parasuraman et al., 1985, 1988).

Nitecki et al. (2000) defined service quality in terms of "meeting or exceeding customers expectations, or as the difference between customer perceptions and expectations of service". As this research is focused on identifying different users of the wa NHIS, the service quality is defined as the overall excellence of the NHIS services that satisfy users' expectation.

Service quality is an abstract and elusive construct, and in the absence of objective measures, consumers' perception of service quality is commonly assessed. Among the measurement instruments used to assess service quality, SERVQUAL (Parasuraman, Zeithaml, and Berry 1988), SERVPERF (Cronin and Taylor, 1992), and RSQS (Dabholkar, Thorpe, and Rentz, 1996) have been the most prominent and most widely used instruments. Parasuraman et al., (1988) introduced SERVQUAL, a 22-item instrument that assesses five dimensions of service quality. The five dimensions are:

- 1) Tangibles - physical facilities, equipment, and appearance of personnel,
- 2) Reliability - ability to perform the promised service dependably and accurately,
- 3) Responsiveness - willingness to help customers and provide prompt service,
- 4) Assurance - knowledge and courtesy of employees, and their ability to inspire trust and confidence, and
- 5) Empathy - caring, individualized attention the firm provides its customers.

The SERVQUAL instrument has demonstrated both excellent validity and reliability (Babakus and Boller, 1992; Bolton and Drew, 1991; Cronin et al., 1992) and applied to different industries, such as professional services (Freeman and Dart, 1993), health care (Lam, 1997), tourism (Tribe and Snaith, 1998), business school (Pariseau and McDaniel, 1997), and information systems (Ketinger and Lee, 1994).

Conversely, SERVPERF was proposed as a variant of the SERVQUAL measurement scale. SERVPERF uses the same 22 items that comprise the SERVQUAL scale; however, while SERVQUAL focuses on the gap between expectation and perception, SERVPERF takes a performance-only approach. SERVQUAL has been shown to have superior diagnostic power, with SERVPERF demonstrating more convergent and discriminate validity and explaining more variance (Jain and Gupta, 2004).

1.2.2 SERVQUAL/Gap Analysis

There are many measurement tools and techniques for assessing SQ and customer satisfaction levels (Santos 2003). The most popular measure of SQ is SERVQUAL, an instrument developed by Parasuraman, Zeithaml & Berry in 1985.

The *SERVQUAL* instrument contains two sets of measures. One set measures customer expectations of the level of perceived service for a specific service industry. The second set of measures aims to measure the level of quality of service offered by a particular service firm as perceived by customers as a way of standardizing perceptions. In order to measure service quality (SQ), Parasuraman et al. (1988) suggested that the expectation scores of customer (E) should be subtracted from their perception (P) scores ($Q = P - E$). If $P = E$ then $Q = 0$. The higher the positive score (Q) the superior the service quality and the lower or negative score indicates inferior service quality. The gap that is likely to occur between customers' expectations and perceptions of service is not only a measure of service quality, but also an indicator of customer contentment and discontentment. Parasuraman et al. (1988) stated that the *SERVQUAL* instrument could be utilized in various services without adaptation because the *SERVQUAL* has high reliability and validity.

The *SERVQUAL* model suggests that customer perceptions of quality emerge from the gap between performance and expectations. As performance exceeds expectations, quality increases, and as performance decreases relative to expectations, quality decreases (Parasuraman, Zeithaml & Berry 1985). Thus, performance-to-expectations "gaps" on attributes that consumers use to evaluate the quality of a service form the theoretical foundation of *SERVQUAL* (Asubonteng, McCleary & Swan 1996).

1.2.3 The Dimensions of Service Quality

the best known determinants service quality emanate from Parasuraman and colleague who found five dimensions of service quality, namely, tangibles, reliability, responsiveness, assurance and empathy and used these as the basis for their service quality measurement instrument, *SERVQUAL* (Parasuraman *et al.*, 1988; Zeithaml *et al.*, 1990). The result was the development of the *SERVQUAL* instrument, based on the gap model. The central idea in this model is that service quality is a function of the difference scores or gaps between expectations and perceptions. An important advantage of the *SERVQUAL* instrument is that it has been proven valid and reliable across a large range of service contexts.

According to Gronroos (1990), there are three groups of quality dimensions, which are technical quality, functional quality and corporate image. This classification also supported by Lehtinen and Lehtinen (1992) that proposed the similar quality dimensions which are physical quality, interactive quality and corporate quality. From these classifications, technical quality is those that can objectively be measured regardless of customer's opinion.

1.2.4 Relationship between service quality and Customers/clients Satisfaction

Kotler and Clarke (1987) define satisfaction as a state felt by a person who has experienced performance or an outcome that fulfill his or her expectation. Satisfaction is a function of relative level of expectations and perceives performance. The expectation may go as far as before the clients even approach the service provider, suggesting that it is important to the researchers to determine first what the clients expect before receiving the service (Palacio, Meneses and Perez, 2002). In contrary, Carey, Cambiano and De Vore (2002), believe that satisfaction actually covers issues of customers' perception and experiences during the period of contact with the service providers.

Customer satisfaction serves as a deterrent to customer disloyalty, leading firms to customer retention (Markovic&Horvat, 1999). This relationship is explained by Rust and Zahorik in 1993, who stated that customer satisfaction drives retention rates, leading to enhanced market share (as cited in Trubik& Smith, 2000).

Customer satisfaction and loyalty, secured through high quality products and services providing value for money, for the customer, are essential for long-term survival, let alone long-term success (Robledo 2001). Satisfaction and loyalty are two different concepts; satisfaction is attitudinal and loyalty is behavioral. While customers who are merely satisfied may often purchase from competitors due to sheer convenience, promotions, and/or other factors, loyal customers tend to spend more, are willing to pay higher prices, refer new clients, and are less costly to do business with (Evans & Lindsay 2002). Statistics show that the typical company gets 65 percent of its business from existing customers and it costs five times more to find a new customer than to keep an existing one happy (Norman 1998). A firm cannot create loyal customers without first creating satisfied customers; this occurs when products and services meet or exceed customer expectations (Evans & Lindsay 2002).

1.3 METHODOLOGY

1.3.1 Conceptual Framework

The conceptual framework for the study is adopted from Parasuraman et al, (1988) as illustrated in Figure 1, as the GAP model. Parasuraman *et al* (1985) revealed that service quality stems from a comparison of the customers' expectations or desires from the service provider with their perceptions of the actual service performance. Ten dimensions (tangibles, reliability, responsiveness, communication, credibility, security,

competence, courtesy, understanding/knowing the customer, and access) were extracted from their research in terms of customer perceived service quality. Based on their findings they developed a service quality model based on gap analysis which is illustrated in Figure 1: - GAP model illustration (Parasuraman *et al.*, 1988).

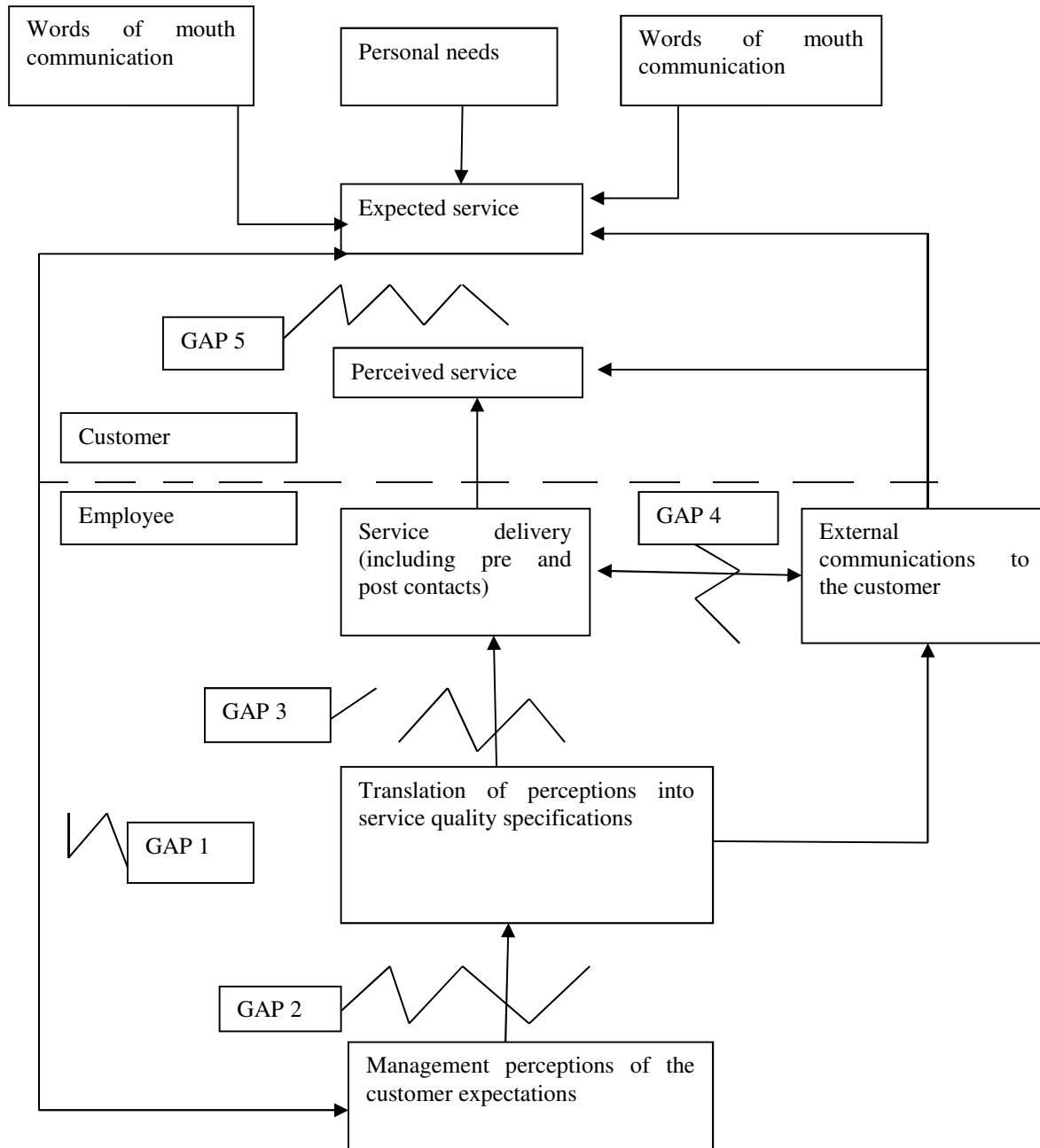


Figure 1: A modified GAP Model illustration (Parasuraman *et al.*, 1988)

The Knowledge GAP is the difference between client's expectation and management's perceptions of those expectations, i.e. not knowing what customers/clients expect.

The Standards GAP is the difference between management's perceptions of client's expectations and service quality specifications, i.e. improper service-quality standards.

The Delivery GAP is the difference between service quality specifications and service actually delivered i.e. the service performance gap.

The Communications GAP is the difference between service delivery and the communications to customers about service delivery i.e. whether promised match delivery?

The overall GAP is the difference between customer's expectation and perceived service. This gap depends on size and directions of the four previous mentioned gaps associated with the delivery of service quality on the employee's side.

Gaps 1 to 4 are within the control of an organization and need to be analyzed to determine the cause(s) and change(s) to be implemented which can reduce or even eliminate Gap 5. Generally, a low mean score reflects a large gap in SQ. Similarly, a higher mean score will reflect a smaller SQ gap. With SERVQUAL/gap analysis model, customers are asked to complete a questionnaire on the basis of a seven-point Likert evaluation scale, ranging from 1 (strongly disagree) to 7 (strongly agree). The measures of SQ are then derived by subtracting the expectation scores from perception scores, which can also be weighted to take account of the relative importance of each quality dimension (O'Neill, Wright & Fitz 2001). These importance scores allow for managers to gain an invaluable insight and enable them to focus their attention where it is most needed or has the most impact. The scores across all the questionnaires are summed and averaged to find a score for each question. The results of the questions, within each dimension, are then averaged to obtain a score for each dimension which can then be used to highlight how well an organization is performing in light of customer expectations (O'Neill, Wright & Fitz 2001).

1.3.2 Development of Model for Measuring Service Quality

The measurement of perceptions of service quality lie across five service quality dimensions as identified by Parasuraman et al (cited in Robinson, 1999), namely tangibles, reliability, responsiveness, assurance and empathy. The instrument consists of two sets of 22 statements. The first set aims to determine a client's expectations of the organization, while the second set seeks to ascertain the client's perceptions of the organization's performance. Respondents are asked to rate their expectations and perceptions of the various elements contributing to service quality. The gap between expectations and performance perceptions (perceived service quality) is measured by the difference between the two scores (performance minus expectations).

The service quality for each respondent for each dimension is calculated as follows:

$$SQ_j = \frac{1}{N_j} \sum_{i=1}^{N_j} (P_{ij} - E_{ij})$$

Figure 2 Equation for SERQUAL

The figure illustrated above can be interpreted as follows:

SQ_j- Service quality of dimension j

E_{ij}- Expectations of the organization for item i in dimension j

P_{ij}- Perceived performance of the organization on item i in dimension j

N_j- Number of items in dimension j

An average score for each dimension is then calculated across all respondents. Positive scores indicate better than expected service while negative scores show poor quality. A zero score implies that quality is satisfactory. Robinson (1999) acknowledges that SERQUAL continues to be one of the most widely recognized methods of measuring service quality. For purposes of this research, this tool, SERQUAL, will be adapted to test specific aspects of Wa MHIS reputation, determining the gap between the impact and the performance of the Wa MHIS.

1.3.3 Research Design

A descriptive survey technique was applied in this study. The employment of this approach provides a relatively easy means to study the perceptions and opinions of a large group of people in a limited time frame and at low costs. The data collected was analyzed using Statistical Package for Social Science Research (SPSS version 17.0), Excel and Content analysis.

1.3.4 Sampling method

The purposive sampling method was used because it includes different variables of the target population in terms of years of residence, socio-economic classification. From the target population a reasonable sample size was chosen using Yamane (1973) recommended formula ($n = N/[1+Ne^2]$) of sample size. This ensures that every element/member had equal chance of being selected. It also helps minimize cost (money) and save time.

1.3.5 Population and Sample Size Population

The number of Client arrival to Wa MHIS during the period 2007 to 2009 was 97,550. Using the scientific formula by Yamane (1973) in calculating the sample sizes two factors have been considered; the level of confidence desired (95%) and the error of tolerance level of (5%).

Sample Size:

Yamane (1973) recommended the formula for random sample as below:

$$n = N / (1 + Ne^2)$$

Where, n is size of sample,

N is population of sample/sample frame, and

e² is probability of error /error of margin (or error tolerated i.e. 5%).

So, the sample size for the study has been calculated according to the recommendation as follows:

$$n = 97550 / \{1 + 97550(0.05)^2\} = 398$$

With N = 97550, e = 5% (at 95% confidence level), hence the sample size is 398 respondents.

1.4 PRESENTATION AND DISCUSSION OF RESULTS

1.4.1 Reliability assesment using cronbach's coefficient Alpha for Servqual

As shown in Table 1, the five SERVQUAL dimensions for the total scale resulted in good internal consistency, evidenced by alpha .84. In this study, the 4-item tangibles scale had a coefficient alpha of .62. The 5-item scale measuring reliability had a coefficient alpha of .66. For the responsiveness scale, the coefficient alpha was .55. The 4-item assurance scale had a coefficient alpha of .66. The last component, empathy scale, had a coefficient alpha of .59.

Table 1 : Cronbach's Coefficient of the Five SERVQUAL Dimensions and Total Scale (N=398)

Dimensions	Number of Items	Coefficient Alphas
Tangibles	4	.620
Reliability	5	.656
Responsiveness	4	.547
Assurance	4	.645
Empathy	5	.592
Total Scale	22	.840

1.4.2 Analysis of Customer's expectation and perception in service quality

The SERVQUAL instrument was used to measure the performance across the five dimensions, for 398 respondents' of the Wa Municipal Health Insurance Scheme. Besides using the descriptive statistic technique to understand the basic attributes of the sample, the paired-sample t-test was carried out to test the significant difference between the two means of perceptions and expectations. Interpretation of the results was done at 5% level of significance. If p < 0.05, then it is considered significant.

The respondents were asked to mark or circle a value ranging from the scores and mean scores of each level of expectation and perception in service quality. These are as follows: 1 equal to strongly disagree (much less satisfied) and 7 equal to strongly agree (much more satisfied). In this analysis a seven point Likert scale has been used to assigned weight to the items used to find the perception of respondents using the weights to score as follows: 1----- Strongly Disagree, 2 ----- Disagree, 3 --- Fairly Disagree, 4 ----- Uncertain, 5 ----- Fairly Agree, 6-----Agree, 7-----Strongly Agree.

Table 2: Frequency Distribution of Customers' Perceptions of Service Quality of WMHIS: Tangibles, Reliability, Responsiveness, Assurance, and Empathy(N=398)

Response categories frequency Distribution								
	Dimension	Strongly Disagree			Strongly Agree			
Tangibles								
		1	2	3	4	5	6	7
1.	Modern Equipment	37.4 % 149	19.8% 79	15.6% 62	13.8% 55	7.0% 28	4.0% 16	2.3% 9
2.	Visually appealing facilities	23.4% 93	21.4% 85	27.4% 109	18.6% 74	4.3% 17	2.5% 10	2.5% 10
3.	Employees who have a neat professional appearance	15.8% 63	20.9% 83	24.6% 98	6.5% 26	17.1% 68	6.3% 25	8.8% 35
4.	Visually appealing materials associated with the service	31.4% 125	27.1% 108	15.1% 60	6.5% 26	7.0% 28	7.5% 30	5.3% 21
	Sub-Total	108% 440	89.2% 352	82.7% 325	45.4% 178	7.0% 141	7.5% 85	5.3% 75
Reliability								
5	Providing services as promised	27.6% 110	31.4% 125	16.6% 66	3.5% 14	12.8% 51	7.5% 25	3.0% 7
6	Performing services right the first	27.1% 108	19.1% 76	13.8% 55	16.8% 67	12.6% 50	7.5% 30	3.0% 12

	time	108	76	55	67	50	30	12
7	Dependability in handling customers' service problem	28.9% 115	26.1% 104	7.0% 28	15.3% 61	17.8% 71	4.8% 19	0.0% 0
8	Providing services at the promised time	12.8% 51	39.4% 157	10.6% 42	17.6% 70	9.8% 39	7.5% 30	2.3% 9
9	Maintaining error-free records	21.4% 85	15.3% 61	26.4% 105	8.0% 32	15.1% 60	10.1% 40	3.8% 15
	Sub-Total	117.6% 469	131.3% 523	74.4% 296	61.2% 244	68.1% 271	36.2% 144	10.9% 43
Responsiveness								
10	Keeping customers informed about when services will be performed	19.3% 77	26.9% 107	11.8% 47	17.6% 70	12.1% 48	7.5% 30	4.8% 19
11	Prompt service to customers	23.4% 135	33.9% 71	17.8% 455	1.0% 21	12.8% 19	5.3% 19	4.8% 19
12	Willingness to help customers	21.1% 84	24.1% 96	25.4% 101	13.8% 55	9.5% 38	5.8% 23	0.3% 1
13	Readiness to respond to customers' request	26.1% 104	23.6% 94	8.3% 33	8.5% 34	13.8% 55	12.3% 49	7.3% 29
	Sub-Total	89.9% 358	108.5% 432	63.3% 252	40.9% 222	48.2% 196	30.9% 123	17.2% 68
Assurance								
14	Employees who instil confidence in customers	14.3% 57	35.4% 141	18.6% 74	3.5% 14	15.8% 63	6.5% 26	5.8% 23
15	Making customers feel safe in their transactions	25.4% 101	34.9% 139	12.6% 50	8.3% 33	10.3% 41	4.5% 18	4.0% 16
16	Employees who are consistently courteous	27.6% 110	24.4% 97	19.6% 78	11.6% 46	10.1% 40	4.0% 16	2.8% 11
17	Employees who have the knowledge to answer customer questions	18.6% 74	26.1% 460	15.1% 42	10.6% 48	12.1% 48	11.6% 46	6.0% 24
	Sub-Total	85.9% 342	120.8% 481	65.9% 262	34.0% 135	48.3% 192	26.6% 106	18.6% 74
Empathy								
18	Giving customers individual attention	17.3% 69	22.4% 89	13.1% 52	21.6% 86	12.3% 49	6.5% 26	6.8% 27
19	Employees who deal with customers in a catering fashion	27.6% 110	28.6% 114	11.3% 45	9.5% 38	10.6% 42	7.5% 30	4.8% 19
20	Having the customer's best interest at heart	20.4% 81	31.9% 127	14.8% 59	9.0% 36	12.8% 51	7.3% 29	3.8% 15
21	Employees who understand the needs of their Customer	27.6% 110	24.4% 97	17.6% 70	8.8% 35	8.5% 34	11.1% 44	2.0% 8
22	Convenient business hours	26.9% 107	20.9% 83	19.6% 78	11.8% 47	10.1% 40	5.8% 23	5.0% 20
	Total	119.8% 477	128.2% 510	76.4% 304	60.7% 242	54.3% 216	38.2% 152	22.4% 89

Source : Field Survey, 2014

1.4.3 Customers' perceptions of Service Quality Regarding Tangibles Dimension

From table 2, it is shown that the frequency distribution of tangibles dimension values is approximately 440, 352, 325, 178, 141, 81 and 75 for the four attributes respectively. This could mean that the perception level of service quality regarding tangibles is low comparing the agree levels and the disagree levels while ignoring the neutral/uncertain point of view. Thus, for every five clients out of the 398 interviewed, 4 clients disagree with the service quality of WMHIS against 1 client agreeing. Therefore, satisfaction level of clients is 1:4 for agree levels and disagree levels respectively. The bar chart figure 2, shows the satisfaction levels of clients as regard the tangibles dimension.

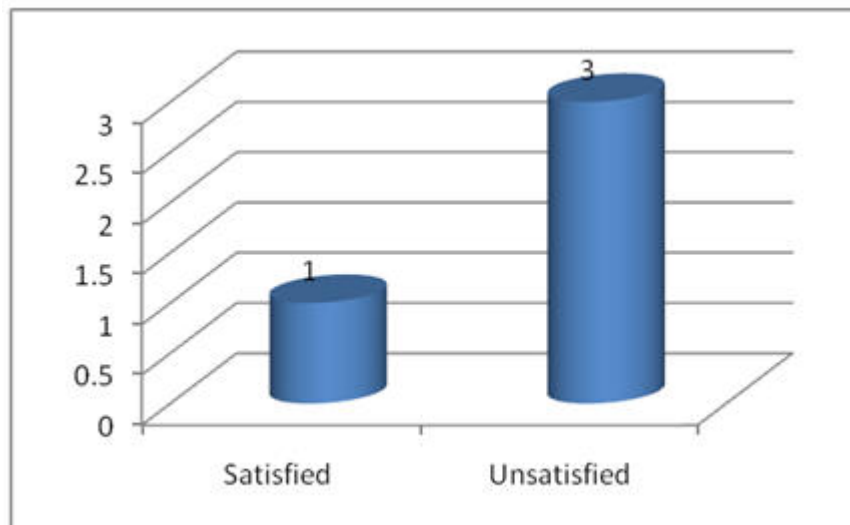


Figure 2: satisfaction levels of Service Quality of WMHIS regarding Tangibles Dimension.

1.4.5 Customers’ perceptions of Service Quality Regarding Reliability Dimension

From table 2 above, the five attributes of the reliability dimension indicate that, the strongly disagree level of perception revealed a higher frequency as compared to the others. This dimension has frequencies of 469, 523, 296, 244, 271, 144 and 43 as it’s strongly disagree, disagree, fairly disagree, neutral, fairly agree, agree and strongly agree levels respectively. Again, these levels has corresponding percentages as 117.6% ,131.3%, 74.4%, 61.2%, 68.1%, 36.2% and 10.9%. In terms of individual performance of the five attributes of this dimension, maintaining error-free records has the highest frequency of 15 clients strongly agreeing to service satisfaction follow by performing services right the first time with frequency of 12 clients. The worse performing attribute is the dependability in handling customers’ service problems attribute which scored zero as its frequency.

The general perception levels combining the three disagreed levels (unsatisfied) and the three agree levels (satisfied) while ignoring the uncertain rates seems to be moderate. The ratio of clients’ satisfaction to dissatisfaction is 1:3. The means for every 3 persons interviewed during the period of survey indicate that only one person is satisfied. Figure 3 shows the satisfaction levels of the 398 clients regarding the reliability dimension.

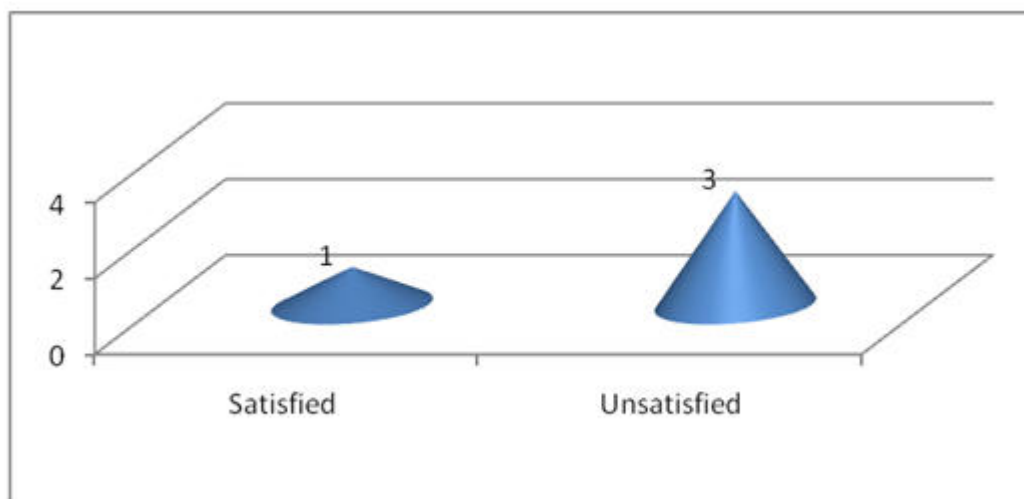


Figure 3: Satisfaction levels of Service Quality of WMHIS regarding Reliability Dimension.

Customers’ perceptions of Service Quality Regarding Responsiveness Dimension

Table 4: indicates that many (89.9%) of the respondents regarding responsiveness dimension stated that the service quality of the WMHIS health care was poor and needs improvement. This may be as a result of the nature of training they might have received from school in terms of how to provide quality communication with

clients as well as willingness to help customers and how they can positively enhance client recovery cooperation and participation.

The overall responsiveness agree value is 387 as compared to 1042 value of disagree level. Thus, a ratio of 1: 3 agreed level to disagreed level respectively. This could mean the perceived agree perception level to service quality regarding responsiveness is fairly disagreed. The highest frequency score is for the readiness to respond to customers' need attribute while readiness to help clients recorded the lowest frequency value.

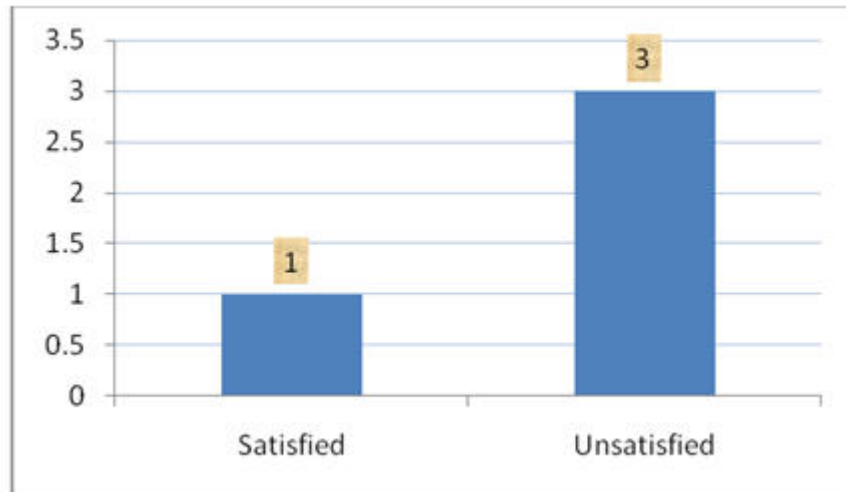


Figure 4: indicates a comparison between satisfaction levels of the WMHIS service quality.

1.4.6 Perception of customers' satisfaction of service quality of WMHIS Based on Assurance Dimension

Figure 5: displays the perception and experiences as far as assurance as a service quality dimension in the WMHIS health care is concerned. As seen from the chart, 63% of the respondents reported that they are dissatisfied with the service quality of WMHIS. Moreover, 25% agreed that they are satisfied with the service while 8% are uncertain.

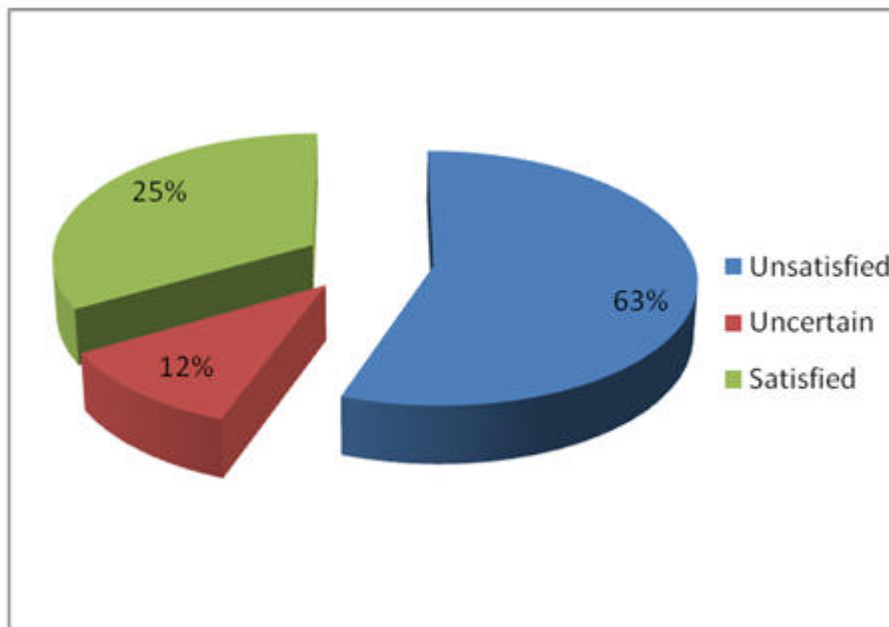


Figure 5: Perception of customers' satisfaction of service quality of WMHIS Based on Assurance Dimension.

1.4.7 Perception of customers' satisfaction of service quality of WMHIS Based on Empathy Dimension

Figure 6: displays the perception and experiences as far as assurance as a service quality dimension in the WMHIS health care is concerned. As seen from the chart, 62.5% of the respondents reported that they are dissatisfied with the service quality of WMHIS. Moreover, 37.5% agreed that they are satisfied with the service

while 12.5% are uncertain. This shows an improvement as compared to the assurance dimension.

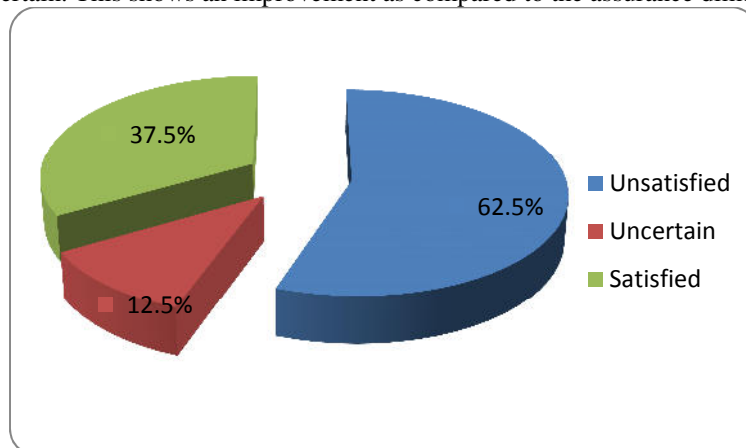


Figure 6: Customers Satisfaction of Service Quality Based on Empathy Dimension.

1.4.8 Evaluation of WMHIS Service Quality Gap 5 between Customers Expectation and Perception.

The service quality scores for each of the twenty-two attributes were calculated by using the formula: “Service Quality Score = Perception Score – Expectation Score”.

Table 3: SERVQUAL (Service Quality) GAP ANALYSIS

Expectation	Perception	Service Quality Dimension	Service Quality (SQ _i)	Gap	P-value
Tangibles					
Up to date equipment	6.84 (0.45)	2.54 (0.50)	-4.30	.000	
Physical facilities appealing	6.73 (0.49)	2.72 (0.47)	-4.01	.000	
Employees are well dressed and appear neat	6.86 (0.48)	3.42 (0.50)	-3.44	.000	
Facilities keep with the service provided	6.74 (0.48)	2.74 (0.51)	-4.00	.000	
Total Average of tangibles	6.79 (0.58)	2.86 (1.69)	-3.93	.000	
Reliability					
Management promises to do, it does so	6.82(0.49)	2.68 (0.52)	-4.14	.000	
Management sympathetic and reassuring	6.70(0.48)	2.81 (0.48)	- 3.89	.000	
Management is dependable.	6.27 (0.49)	3.03(0.52)	- 3.24	.000	
Management provide service on time	6.80(0.42)	3.04 (0.45)	-3.76	.000	
service are performed	6.74 (0.49)	3.25(0.50)	- 3.49	.000	
Total average of Reliability	6.67 (0.67)	2.96 (1.68)	-3.71	.000	
Responsiveness					
Providing service at the promised time	6.33 (0.44)	3.18(0.48)	-3.15	.000	
Clients are given prompt service	6.66 (0.51)	2.83(0.53)	-3.83	.000	
Employees are always willing to help	6.09 (0.46)	2.85 (0.43)	-3.24	.000	
Employees are never too busy to respond	6.95 (0.49)	3.26 (0.51)	- 3.69	.000	
Total average of Responsiveness	6.51 (0.77)	3.03(1.75)	-3.48	.000	
Assurance					
Trust in Wa MHIS employees	6.65 (0.35)	3.14(0.49)	- 3.51	.000	
Feel safe in their transaction	6.41 (0.43)	2.73(0.31)	-3.68	.000	
Employees are polite	6.67 (0.42)	2.75 (0.43)	-3.92	.000	
Employees are well-trained	6.28 (0.46)	3.30 (0.47)	- 2.98	.000	
Total average of Assurance	6.50 (0.85)	2.98 (1.73)	-3.52	.000	
Empathy					
Employees provide personal attention	6.81(0.55)	3.36(1.78)	- 3.45	.000	
Employees deal with customers needs	6.56(0.76)	2.88 (1.83)	- 3.68	.000	
Having the customer’s best interest at heart	6.56 (0.73)	2.99(1.73)	-3.57	.000	
Employees who understand the needs of their customers	6.52 (0.81)	2.87(1.76)	-3.65	.000	
Convenient business hours	6.56(0.79)	2.95(1.77)	-3.61	.000	
Total average of Empathy	6.55(0.73)	3.01(1.77)	-3.54	.000	

1.4.9 Expectations and perceptions of Customers/Clients of Wa MHIS

Expectations and perceptions were both measured using the 7-point likert scale whereby the higher numbers indicate higher level of expectation or perception. In general, customer's expectation exceeded the perceived level of service shown by the perception scores. This resulted in a negative gap score (Perception – Expectation). This confirms Parasuraman et al., (1988) assertion that it is common for consumer's expectation to exceed the actual service perceived and thus signifies that there is always need for improvement. The items with the highest expectation scores were readiness to respond to customer's request (6.9548), employees' ability to dress well and appear neat (6.8568), up to date modern equipment (6.8392) and providing services at the promised time (6.8040). However, these scores are not very different from scores of other items and this implies generally, clients expect very high from Wa MHIS as healthcare provided. The items rated highest for actual service perceived were, employees' ability to dress well and appear neat(3.4221), employees providing personal attention (3.3593), Readiness to respond to customer's request (3.2638) and possession of modern equipments(2.5427) being the lowest. There is so much difference between the scores of perceptions but are generally lower than expectations.

The gap scores are the difference between the perception and expectation scores with a range of values from -6 to +6 and these gap scores measure service quality and hence customer satisfaction as indicated in Appendix iv/table. The more perceptions are close to expectations, the higher the perceived level of quality. The largest gaps scores were, clean physical environment (-4.0125) and modern equipment (-4.2965) both related to the tangible dimension. Sincere interest in solving customer's problem (-3.57), fulfilling their promise they make to customers (-3.83) and employees never too busy to respond to customers' requests (-3.68).

Table 4: Showing the gap scores of the perception and expectation of Wa MHIS clients base on the five dimensions.

Dimensions	Perception(p)	Expectation (E)	Gap Score(P-E)
1.Tangibles	2.86	6.79	-3.93
2.Reliability	2.69	6.67	-3.71
3.Responsiveness	3.03	6.51	-3.48
4.Assurance	2.98	6.50	-3.52
5. Empathy	3.01	6.55	-3.54
Service Quality	2.914	6.604	-3.69

Source : Field Survey, 2014.

As indicated in the table 4, the responsiveness dimension with a gap score of -3.48 had the least difference, the tangibles dimension with a score of -3.93 is the highest. Thus, the Wa MHIS may be said to be doing well in terms of the responsiveness dimension than the rest of the dimensions. The tangibles dimension is however the worse performing dimension. Moreover, all the dimensions recorded negative gap values inferring none of customers perceptions exceeded the their expectations.

14.10 Hypothesis test comparison between customers' expectation and perception

The Paired Sample T-Test analysis was used to test the hypothesis for comparison of the difference between customers' expectation and perception of service quality assessments of the WNHIS as a service provider. SERVQUAL was adapted in this part to study service quality in Gap 5.

Service Quality = Perception - Expectation

Service Quality = The Perceived Service Quality Gap (Gap 5)

The Negative Means Gap (P<E) = The customers are unsatisfied in Service Quality. The Positive Means Gap (P>E) = The customers are satisfied in Service Quality

1.4.11 Hypothesis

H_0 : There is no difference between customers' perceptions and actual service provided, expectations and performance in service quality concerning tangibles, reliability, responsiveness, assurance empathy and five dimensions of the Wa municipal area.

H_1 : There are differences in the gap between customers' perception and expectation in service quality concerning tangibles, reliability, responsiveness, assurance, empathy and five dimensions related to service quality of the WMHIS area.

From Table 5, all pairs are significant since P-Values = 0.000. Therefore, it indicates that the customer's highest expectation is more than perception of service quality in NHIS service in the Wa municipal area.

Table 5, Paired Samples Test

Dimensions		Paired Differences					T	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Perception1-Expectation1	-4.30	1.70	.085	-4.46	-4.13	-50.560	397	.000
Pair 2	Perception2-Expectation2	-4.01	1.56	.078	-4.17	-3.86	-51.400	397	.000
Pair 3	Perception3-Expectation3	-3.42	1.97	.098	-3.61	-3.23	-34.718	397	.000
Pair 4	Perception4-Expectation4	-4.00	1.89	.095	-4.19	-3.81	-42.135	397	.000
Pair 5	Perception5-Expectation5	-4.14	1.73	.087	-4.31	-3.97	-47.791	397	.000
Pair 6	Perception6-Expectation6	-3.88	1.78	.089	-4.06	-3.71	-43.619	397	.000
Pair 7	Perception7-Expectation7	-3.24	2.12	.106	-3.44	-3.03	-30.424	397	.000
Pair 8	Perception8-Expectation8	-3.77	1.68	.084	-3.93	-3.60	-44.710	397	.000
Pair 9	Perception9-Expectation9	-3.48	1.89	.094	-3.67	-3.30	-36.794	397	.000
Pair 10	Perception10-Expectation10	-3.15	2.02	.101	-3.35	-2.95	-31.147	397	.000
Pair 11	Perception11-Expectation11	-3.83	1.87	.094	-4.01	-3.64	-40.725	397	.000
Pair 12	Perception12-Expectation12	-3.24	1.81	.091	-3.42	-3.06	-35.619	397	.000
Pair 13	Perception13-Expectation13	-3.69	2.03	.102	-3.89	-3.49	-36.284	397	.000
Pair 14	Perception14-Expectation14	-3.52	1.91	.096	-3.70	-3.33	-36.778	396	.000
Pair 15	Perception15-Expectation15	-3.69	1.96	.098	-3.88	-3.49	-37.510	397	.000
Pair 16	Perception16-Expectation16	-3.91	1.81	.091	-4.09	-3.74	-43.205	397	.000
Pair 17	Perception17-Expectation17	-2.97	2.14	.107	-3.19	-2.76	-27.797	397	.000
Pair 18	Perception18-Expectation18	-3.45	1.86	.093	-3.64	-3.27	-37.067	397	.000
Pair 19	Perception19-Expectation19	-3.68	1.92	.096	-3.87	-3.49	-38.151	397	.000
Pair 20	Perception20-Expectation20	-3.57	1.87	.094	-3.75	-3.39	-38.128	397	.000
Pair 21	Perception21-Expectation21	-3.65	1.96	.098	-3.84	-3.45	-37.041	397	.000
Pair 22	Perception22-Expectation22	-3.62	1.89	.095	-3.81	-3.43	-38.250	397	.000

1.4.12 Relationship between Service Quality and Clients' Satisfaction of WMHIS

Table 6, Correlation matrix showing strengths of relationship amongst the various variables

Pearson Correlation Analysis							
Dimension	X ₁	X ₂	X ₃	X ₄	X ₅	X ₆	X ₇
Tangibles(X ₁)	1.000						
Reliability(X ₂)	**0.460	1.000					
Responsiveness(X ₃)	**0.661	**0.460	1.000				
Assurance(X ₄)	**0.536	**0.454	**0.509	1.000			
Empathy(X ₅)	**0.633	**0.415	**0.567	**0.691	1.000		
Perceived Qty(X ₆)	**0.724	**0.411	**0.639	**0.630	**0.742	1.000	
Customers' Satisfaction(X ₇)	**0.611	**0.534	**0.550	**0.664	**0.581	**0.642	1.000

** Correlation is significant at the 0.01 level (2-tailed)

Pearson correlation coefficient was used to measure the strength of the association between the variables used. Two-tailed Pearson correlation test were employed to assess predictive validity of the posited variables. The paired variables recording correlation with double star (**) indicated the strongest relationships and showed significant results. All independent and dependent variables were found to be positive significantly correlated. Customers perceived quality have high correlation values ($r = 0.742^{**}$) with empathy. Clients perceived quality have a lowest correlation values ($r = 0.411^{**}$) with Reliability.

Table 6, indicates that there are significant and positive relationship between tangibility, assurance, reliability, responsiveness, and empathy and overall service quality to customers' satisfaction. From the output, responsiveness has the strongest relationship with satisfaction followed by assurance, tangibility, responsiveness and reliability. The relationship between tangibility and student satisfaction is $r=0.568$ meaning that tangibility has a moderate relationship toward satisfaction similar with assurance ($r=0.536$), reliability ($r=0.460$) and responsiveness ($r=0.661$). Empathy and responsiveness show a stronger relationship with satisfaction. The relationship between overall service quality and customers satisfaction is 0.724 meaning that the relationship is stronger than moderate. Furthermore, the results indicate that all the dimensions are highly correlated and very significant with one another. Therefore, the results have proven that the service quality dimensions (tangibility, assurance, responsiveness, reliability and empathy) have a significant relationship with clients' satisfaction. This confirms previous studies by Mahiah., S. et al. (2006), that showed that tangibility, empathy, reliability, responsiveness and assurance are highly correlated and very significant with one another.

1.4.13 Overall perceived service quality of WMHIS

The research examined the difference between customers' expectations and customers' perceptions of the service quality in WMHIS. The researcher found that the respondents' overall expectation on a scale of 1 to 7 is 6.604. This is high and implies that customers expect a lot from the Wa MHIS. Looking at the individual dimensions one can realize that customers expect a lot from the service dimension with a score of 6.604. Wa NHIS therefore has to pay a lot of attention to the quality and the variety of services that they provide. This shows that this dimension is very important when measuring service quality in NHIS and this is line with the technical dimension of service quality suggested by Gronroos, (1982). It shows that all the customers expect more from NHIS in Wa municipal than the scheme actually offer. This is evident from the negative mean of -3.69 showing that expectations exceed perceptions in Wa MHIS.

The standard deviations of the individual dimensions are varying around a common average making them fairly consistent around the five dimensions and this suggests a range of opinions on the service quality among the clients surveyed.

Summarily, overall perceived service quality is low (-3.69) meaning the level of service they receive is lower than what they expect indicating there is no satisfaction. This could be possibly because of either the under delivering of services to customers or the over promising of Wa MHIS to customers on their services. The reliability and the assurance dimensions also have scores of above 6. Customers are therefore very sensitive to how reliable and assuring a WMHIS is providing good and quality services to them. Generally, the expectations are high since they are all above 6. The customers' expectations across the five dimensions are rated at 6.604 on a scale of 1 to 7 which is an indication that customers expect very high from NHIS in Ghana.

Considering customers' perception of service in Wa MHIS which is more like the SERVPERF model which deals with customers' perception of service quality in conformity with customers satisfaction (Cronin et al., 1992), it is realized that customers' expectations are more than their perceptions even though the difference is much. Basing on the individual dimensions, it is realized that customers are of the opinion that the quality and variety of services in WMHIS is most unsatisfactory compared to the other dimensions with an average score of 2.91. The responsiveness dimension is judged the highest by customers with an average score of 3.03. This is however in the middle of the scale. Generally, all the dimensions have an average perception score of 2.914. According to the SERVPERF model (Cronin et al., 1992), it indicates that customers are dissatisfied with

service quality in WMHIS since the average score is below the average of the scale and since satisfaction in services is highly related to quality. Parasuraman et al., (1985) suggested that when perceived service quality is high, then it will lead to increase in customer satisfaction. He supports the fact that service quality leads to customer satisfaction and this is in line with Saravana & Rao, (2007) and Lee et al., (2000) who acknowledge that customer satisfaction is based upon the level of service quality provided by the service provider. This is a good ground for asserting whether customers are satisfied with service quality in Wa MHIS or not since the average perception score is below the average of the scale. A higher perception also indicates higher satisfaction as service quality and satisfaction are positively related (Fen & Lian, 2005). This means that dimensions with higher perception scores depict higher satisfaction on the part of customers and lower perception scores depict lower satisfaction.

Implicitly, customers are barely satisfied since the average perception score is 2.914 which is less than 20% of the total score and indicated that Wa municipal health insurance scheme need to work hard to make up the over 80%. However, the SERVPERF model for service quality study is not in use but rather the SERVQUAL model and so one cannot say that customers are satisfied or not. Parasuraman et al. (1985, 1988) introduced the gap score as a means to measure service quality and they identified quality as a determinant of service quality. They however restricted their inference of satisfaction from service quality to a gap score between perceptions and expectations. In this research, the researcher has been able to measure the gap between perception and expectations of the sample. The expectations are higher than the perceptions. This makes us to have negative gaps indicating that customers expect more than service industry (WMHIS) actually offer in terms of the quality of services.

Thus, the overall result revealed that the responsibilities and the assurance were the highest expectation and reliability, was the lowest. Compared with, the reliability dimension having the largest gap, the tangibles dimension has the smallest gap. This suggests that the Wa municipal area has more emphasis on the professional, polite and considerate attitude of WMHIS when compared to the tangible, visually appealing materials.

In its strict sense customers perceive service quality in WMHIS can be said to be poor since it is lower than expectations and hence they are not satisfied. This describes how consumers perceive service quality. As service quality is an antecedent of customer satisfaction, which has been proven by Negi, (2009), it means that since consumers perceive service quality as low or poor, and therefore implies that customers are not satisfied with services offered in service industries. This customer satisfaction which comes as a result of the interaction between the consumer and service provider (Yi, 1990) and from other results, it shows that consumers are not satisfied meaning this could be because they poor interaction between the customer and service provider and also because the consumer is becoming more and more demanding and does not tolerate any shortfalls in the quality of services offered by service providers (Douglas & Connor 2003). The shopping experience affects customer satisfaction according to Huddleston et al., (2008) and since customers are not satisfied with the services offered by service industry, it means they did not have a good service experience.

In summary, from results obtained, it is seen that customers perceive service quality as poor in all dimensions meaning their expectations fall short of they experience in WNHIS. In this regard, customers are not satisfied with any dimension of service quality. All the dimensions show a gap between expected service and perceived service and this therefore means that Wa MHIS needs to make improvements in all dimensions in order to close gaps that could lead to increased customer satisfaction

1.5 CONCLUSION AND RECOMMENDATIONS

1.5.1 Summary of Main Findings

The first objective of this study was to test the dimensionality of SERVQUAL in the Wa MHIS health care setting. Results of the factor analysis revealed that reliability-confidence, empathy, tangibles, responsiveness and assurance are the five dimensions of service quality. Thus the five dimensions proposed by Parasuraman et.al (1988) were confirmed. Since the sample of the study was representative of the Wa municipal population, these five factors can be used in further studies on health care service quality measurement in wa.

The second objective of the study was to assess the service quality offered in NHIS in wa. The findings have some important implications, especially for the MHIS. On all of the five factors extracted, the WMHIS possesses huge gaps. The five dimensions obtained over 80% satisfaction on the expectations. On the other hand, service quality perception dimensions indicated about 20% satisfaction level. These figures indicate that some actions must be taken by the Ministry of Health, NHIA and any other person who has a stake in the management of the scheme to improve the service quality in NHIS in Wa. It is believed that this requires strategic and creative thinking. Probably the first action might be to reorganize the management structure of the WMHIS so that health professionals manage the “curing” aspect, while the professional managers handle the “caring” aspect of the service provided.

Yet, it is highly advised that the management units should compliment one another rather than conflicting against each other to offer better health care service to the society.

This study examined the relationship between the SERVQUAL and customers' perceived quality, and the relationship between the SERVQUAL and the customer's satisfaction. Overall, this study found that the reliability, empathy, responsiveness, assurance, and tangibility of WMHIS service and conditions positively influenced the clients' perception and their satisfaction.

The Wa municipal health scheme staffs are perceived as moderate service providers than other national health insurance schemes. They satisfy 92% of the expectations on the reliability-confidence and empathy dimensions and fully meet the expectations on the tangibles dimension. In spite of the level of satisfaction provided by WMHIS, there is still room for improvement. Managers of the WMHIS must consider their performance, understand their strengths and weaknesses and develop strategies to improve their service quality. Managements must also monitor their competitors' moves not to fall back from competition. Finally, the municipal health insurance scheme in Wa must continuously improve their service quality so that their customers are not acquired by private healthcare service providers especially in the region which today are probably their major competitors.

1.5.2 Recommendations for Future Research

The Ministry of Health in collaboration with the NHIA is applying some new policies and heavily investing in the sustainability of the NHIS. It is highly recommended that further studies are made to measure service quality in public hospitals relative to the NHIS in the future to trace the change in service quality by comparing the findings with the findings of the current study. Also, studies must be made to measure difference dimensions of service quality instead the five dimensions and gaps proposed by Parasuraman et.al (1985). Finally, the SERVQUAL instrument must be applied on other industries to test the generalizability of the dimensions to other industries.

REFERENCES

- Aldlaigan, A.H. and Buttle, F.A. (2002), "SYSTRA-SQ: a new measure of bank service quality", *International Journal of Service Industry Management*, No. 4, pp. 362-81.
- Asubonteng, P., McCleary, K.J. and Swan, J.E. (1996), "SERVQUAL revisited: a critical review of service quality", *The Journal of Services Marketing*, Vol. 10 No. 6, pp. 62-81.
- Babakus, E. & Boller, G.W. (1992). An Empirical Assessment of the SERVQUAL Scale. *Journal of Business Research*, 24, (3), 253-268.
- Babakus, E. and W.G. Mangold, (1992). Adapting the SERVQUAL scale to hospital services: An empirical investing. *Health Serv. Res.*, 26: 767-786. PMID: PMC1069855
- Berry, L and Parasuraman, A. (1992), "Prescription for service quality", *American Organizational Dynamics*, Vol. 20 No.4 pp. 5-15.
- Bolton, R.N. & Drew, J.H. (1991). A Longitudinal Analysis of the Impact of Service Changes on Customer Attitudes. *Journal of Marketing*, 55, (1), 1-9.
- Chakrabarty, S., Whitten, D. & Green, K. (2007). Understanding Service Quality and Relationship Quality in IS Outsourcing: Client Orientation & Promotion, Project Management Effectiveness, and the Task-Technology-Structure Fit. *Journal of Computer Information Systems*, (Winter 2007-2008), 1-15.
- Cronin Jr., J.J. & Taylor, S.A., (1992). Measuring Service Quality: A Reexamination and Extension. *Journal of Marketing*. 56, (3), 55-68.
- Dabholkar, P.A., Thorpe, D.I. & Rentz, J.O. (1996). A Measure of Service Quality For Retail Stores: Scale Development and Validation. *Journal of the Academy of Marketing Science*, 24, (1), 3-16.
- Douglas, L. & Connor, R. (2003), 'Attitudes to service quality – the expectation gap', *Nutrition & Food Science*, vol. 33, no. 4, pp. 165-172
- Evans, J. & Lindsay, W. (2002), *The Management and Control of Quality*, 5th edn, South-Western, Cincinnati.
- Fen, Y. S. & Meillian, K. (2005). Service quality and customer satisfaction: Antecedents of customer's re-patronage, *Sunway Academic Journal*. Vol. 4,p.60-73.
- Freeman, K.D. & Dart, K. (1993). Measuring the Perceived Quality of Professional Business Services. *Journal of Professional Services Marketing*, 9, (1), 27-47.
- Ghana Statistical Service (GSS), Ghana Health Service (GHS), and ICF Macro. 2009. Ghana Demographic and Health Survey 2008. Accra, Ghana: GSS, GHS, and ICF Macro.
- Gronroos, C. (1982). A service quality model and its marketing implications, *European Journal of Marketing*, Vol.18, Number 4, p.36-44.
- Gronroos, C. (1984), "A service quality model and its marketing implications", *European Journal of Marketing*, Vol. 18, pp. 36-44.
- Grönroos, C., (1990), "Service management and Marketing, Lexington Books, MA. Harvey, L. and Green, D. (1993). "Defining Quality", *Assessment and Evaluation in Higher Education*, Vol. 18 No.1 pp.9-34.
- Huddleston, P., Whipple, J., Mattick R. N. & Lee S. J. (2008). Customer satisfaction in food retailing: comparing speciality and conventional grocery stores, *International Journal of Retail & Distribution Management*, Vol.37,

Number 1,p.63-80.

- Jain, S.K. & Gupta, G. (2004). Measuring Service Quality: SERVQUAL vs. SERVPERF Scales. *VIKALPA*, 29, (2), 25-35.
- Kettinger, W.J. & Lee, C.C. (1994). Perceived Service Quality and User Satisfaction With the Information Services Function. *Decision Sciences*, 25, (5, 6), 737-766.
- Kim, Y. and Lee, J. (1993), "Manufacturing strategy and production systems: an integrated framework", *Journal of Operations Management*, Vol. 11 No. 1, pp. 3-15
- Kontzalis, P. (1992), "Identification of key attributes, gap analysis and simulation technique in forecasting market potential of ethical pharmaceutical products", *International Journal of Forecasting*, Vol. 8 pp.243-9.
- Kotler, P. and Clarke, R.N. (1987) *Marketing for Health Organisations*. Englewood
- Lam, S.K. (1997). SERVQUAL: A Tool for Measuring Patients' Opinions of Hospital Service Quality in Hong Kong. *Total Quality Management*, 8, (4), 145-152.
- Lee, H., Lee, Y. & Yoo, D. (2000). The determinants of perceived service quality and its relationship with satisfaction, *Journal of Service Marketing*, Vol. 14, Number 3, p.217-231.
- Lehtinen, U. and Lehtinen, J.R. (1992), "Service Quality: A Study of Quality Dimensions", Working Paper, Service Management Institute, Helsinki.
- Markovic, S. and Horvat, J. (1999), *Customer Satisfaction Measurement*, Opatija, Bratislava.
- Negi, R. (2009). Determining customer satisfaction through perceived service quality: A study of Ethiopian mobile users, *International Journal of Mobile*
- Norman, J. 1998, 'Royal treatment keeps customers loyal', *Cincinnati Enquirer*, May 31.
- O'Neill, M., Wright, C., and Fitz, F., (2001), "Quality Evaluation In Online Service Environments : An Application Of The Importance -Performance Measurement Technique", *Managing service Quality journal*, Vol 11 No 6, pp 402-417. *of Marketing, American Marketing Association, Chicago, IL*, p.68-123.
- Parasuraman, A., Berry, L. L., & Zeithaml, V. A. 1991a. Perceived service quality as a customer-based performance measure: an empirical examination of organizational barriers using an extended service quality model. *Human Resource Management*, 30(3): 335-364.
- Parasuraman, A., Berry, L. L., & Zeithaml, V. A. 1991b. Refinement and Reassessment of the Servqual Scale. *Journal of Retailing*, 67(4): 420-450.
- Parasuraman, A., Berry, L. L., & Zeithaml, V. A. 1991c. Understanding Customer Expectations of Service. *Sloan Management Review*, 32(3): pp. 39-48.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988), "SERVQUAL: A Multiple-Item Scale For Measuring Consumer Perceptions Of Service Quality", *Journal of Retailing*, Spring, Volume 64, Number 1, pp. 12-40.
- Parasuraman, A., Zeithaml, V.A., Berry, L.L., (1985), "A conceptual model of service quality and its implications for future research", *Journal of Marketing*, 49, 41-50.
- Pariseau, S.E. & McDaniel, J.R. (1997). Assessing Service Quality in Schools of Business." *International Journal of Quality and Reliability Management*, 14, (3), 204-218.
- Robinson, S., (1999) Measuring service quality: current thinking and future requirements. *Marketing Intelligence & Planning* 17 (1), 21-32.
- Robledo, M. (2001), 'Measuring and managing service quality: integrating consumer expectations', *Managing Service Quality*, vol. 11, no. 1, pp. 22-31.
- Santos, J. (2003). Eservice Quality: a model of virtual service quality dimensions. *Managing service Quality*, 13(3), 233-246.
- Saravanan, R. & Rao, K. S. P. (2007). Measurement of service quality from the customer's perspective – An empirical study, *Total Quality Management*, Vol.18. No. 4, p.435-449.
- Sullivan, J.R. & Walstrom, K.A. (2001). Consumer Perspectives on Service Quality of Electronic Web Sites. *Journal of Computer Information Systems*, 41, (3), 8-14.
- Tribe, J. & Snaith, T. (1998). From SERVQUAL to HOLSAT: Holiday Satisfaction in Varadero, Cuba. *Tourism Management*, 19, (1), 25-34.
- Trubik, E. & Smith, M. (2000). Developing a model of customer defection in the Australian banking industry. *Managerial Auditing Journal*, 15(5), 199-208. Retrieved November 20, 2003, from ProQuest database.
- Winsted, K.F (1997). The service experience in two cultures: a behavioral perspective, *Journal of Retailing*, Vol. 73, no. 3, pp 337-60.
- Yamane T. (1973). *Statistics, an Introductory Analysis*. (3rd ed). New York: Harper and Row.
- Yi, Y. (1990). A critical review of consumer satisfaction, in Zeithaml, V. (Eds), *Review*
- Zeithaml, V. A., Parasuraman, A., & Berry, L. L. (1990), *Delivering Quality Service: Balancing Customer Perceptions And Expectations*, The Free Press, a division of Macmillan, Inc., New York.