Abstract
Health care service is not satisfactory in many in many countries of the world. Although service quality is one of the central research fields in the field of service marketing, the service delivery complained by quality issues. This study aimed that evaluating the perceived quality of service delivery of public hospitals, in Amhara region, Ethiopia. The subject of the study is outpatients of the hospital selected conveniently. The data collected by self-administered questionnaire was analyzed by using descriptive statistics, t-test to compare the mean difference of perception of outpatients who come from urban are to rural area. To check multidimensionality of the service quality CFA was employed and SEM also applied to evaluate the relationship of the dimensions with service quality. The result of this study indicated that the perceived qualities of the hospitals are below average level. Both of rural and urban people had same understanding about the service quality. Alike other service sector the CFA result indicated that multidimensionality of the service quality in public health care organizations. As per the SEM result the structure model have good fit index and show all dimension have positive relationship with Service quality.

I. INTRODUCTION
In most developing country utilization of health care services is an important public health and policy issue. However, the level of health care services is not satisfactory in many countries of the world (Balabanova et.al, 2004). Mostly it complained by the quality related
things. Service quality is one of the central research fields and with one of the longest intellectual histories in the field of service marketing (Berry and Parasuraman (1993); Brown et al. (1994)).

However service quality has long history in the field of researches, the service quality construct is multidimensional and its nature is highly debated in the literature. Because of the unique characteristics service, the concept of service quality has been describe elusive and abstract (Parasuraman, Zeitham & Berry1985). Besides there are many opinions concerning the explanation of service quality dimension, various definitions of service quality have been mentioned. Zeithmal and Berry, (1988) defines service quality as the difference between customers’ expectations of provided service performance and their evaluation of actual service. Asubonteng defines it as the difference between customers expectations of guided service performance and their realization of actual service. Da’boul and Ayyoub, (2003) refer to service quality as the conformity with specifications. Service quality demonstrated that organizations delivering superior levels of service benefit from increased market share growth and premium prices (Buzzell & Gale, 1987). Gronroos (1982) stated that the total quality of service is a composite result of technical quality, functional quality and corporate image of the service. Of these he argued that functional quality is more important than the other one, it focused on how service transfer to the customer.

Functional quality is also used to describe interpersonal and administrative service quality, which describe how the services are delivered as defined by patients’ perceptions and attitudes regarding the interactions that take place during the service delivery (Brady and Cronin ,2001). Research suggests that patients are more strongly influenced by functional service quality than by technical service quality (Hernandez, Houseman, and Ryan, 2009). Based the Varity definition of service quality and on these findings and definitions of service quality, the focus in this study is on interpersonal or functional quality and try to evaluate based on the perception of the clients of the public hospitals.

In Ethiopia, the health care system is decentralized and free health service for those who cannot afford is being delivered. Though health service coverage is 86.7%, the availability of free service for the poor, remains very low (32%) and unevenly distributed (MOH 2006/2007). Furthermore, the perceived quality level of the service in the country public health care organization is lower comparing to the other similar research conducted on developing country (Abdosh, 2016)

However, the country have made structural shift and give focused on the service sector still the quality is under question mark specially in the public sector. One of the basic and most attention given public service is the health care service. The government work for the improvement of the quality of the service provided from it and also one of the basic area of Millennium Development Goal (MDG) of the country still it is in problem and doesn’t reach in the expected level. This study assessed the current level of the service quality of the referral hospitals and measure the multidimensionality service quality in the in the selected sample of the public hospitals.
II. OBJECTIVES

i.) To evaluate the service quality of the service provided by public hospitals

ii.) To assess the influence of living place of client affect the perception of service quality

iii.) To evaluate the relationship of educational background of client to their service quality perception

III. HYPOTHESIS OF THE STUDY

H1- Tangibility positively related to service quality.

H2- Reliability positively related to service quality.

H3- Responsiveness positively related to service quality.

H4- Assurance positively related to service quality.

H5- Empathy positively related to service quality.

IV. REVIEW OF LITERATURE

Service quality in Public Service

Service provision is more complex in the public sector because it is not simply a matter of meeting expressed needs, but of finding out unexpressed needs, setting priorities, allocating resources and publicly justifying and accounting for what has been done (Gowan et al. 2001). The service quality measured by using different model and dimension patient satisfaction survey is the commonly used method to assess the non-technical aspects of quality of care (WHO, 2000). The concept of service quality has been describe elusive and abstract (Parasuraman, Zeitham & Berry 1985). Besides there are many opinions concerning the explanation of service quality dimension, various definitions of service quality have been mentioned. Zeithmal and Berry, (1988) defines service quality as the difference between customers’ expectations of provided service performance and their evaluation of actual service defines it as the difference between customers expectations of guided service performance and their realization of actual service.. Service quality demonstrated that organizations delivering superior levels of service benefit from increased market share growth and premium prices (Buzzell & Gale, 1987).

Dimension of Service Quality

Service Quality Measurement requires the measuring of respective service quality attributes and factors (WHO, 2009). Because of different characteristics of the service the quality measurement also different and different researchers recognize service quality as
multidimensional constructs. Sasser et al. (1978) defined the factors that raise the level of service quality such as security, consistency, attitude, completeness, condition, availability, and training of service providers. Parasurman et al. (1988) determined the five dimension service quality such as tangibility, reliability, responsiveness, Assurance and Empathy and develop the gap model. Grönroos (2001) developed the first service quality model and measured perceived service quality based on the test of qualitative methods. Technical quality, functional quality, and corporate image were used in the model as the dimensions of service quality. Chakrapani (1998) also developed a simple three dimension to measure the service quality. Garvins (1987) determined the 8 dimension which are performance, feature, reliability, conformance, durability, serviceability, aesthetics and perceived quality as the measurement tool of quality. JCAHO also identified nine dimensions (efficacy, appropriateness, efficiency, respect & caring, safety, continuity, effectiveness, timeliness and availability) as a measurement of service quality. for measuring service quality. Brady et al. (2002) mentioned that SERVPERF was the most superior model among all service quality models and they performed a replication and an extension of SERVPERF and supported the results of Cronin and Taylor (1992) in different sectors such as spectator sports, entertainment, health care, long-distance carriers, and fast food. This study assessed the service quality of public health care service by using Cronin and Taylor SERVPERF model.

V. METHODOLOGY

➢ Research Design
The study adopted cross sectional descriptive survey approach in collecting data from respondents. The descriptive design helps to evaluate the current existed situation regard to service provision quality in the public hospitals. The data Collected from 1st April 2016- 15th May 2016 by using pre tested structured questionnaire. The questionnaire consisted of demographic data and five points Likert scaled items. Patients who responded as 1 (strongly disagreed), 2 (Disagreed) and 3 (Neutral) 4 (Agreed) and 5 (strongly agreed) were responded. 22 items were taken from the SERVPERF model developed by Cronin and Taylor (1992) to measure service quality of the hospitals health care service delivery.

➢ Sampling size and sampling techniques
The study employed a multi-stage sampling plan to select study area and respondents. There are about five referral hospitals in the regional state to select three among these the study employed convenient sampling method. Based on the information that gathered from the registration and documentation center of the selected hospitals the average number of outpatients who get service from the hospital in a week takes as population. Which is 30000, then the sample size for the respondents from each hospital was determined by using Taro Yamane’s (1973) formula from the given population by taking into accounts 0.05 (5%) standard error or significant level.
\[ S = \frac{N}{1 + Ne^2} \]

Where, 
- \( S \) = sample size 
- \( N \) = population size 
- \( e \) = significance level or error of sampling

Since the respondents are outpatients returning totally distribute questionnaire is difficult. Therefore by considering 20% none respond rate 470 outpatients taken as sample size conveniently. These respondents distributed for three hospitals proportionally according to the size of the population which serve. Hence from Gondar referral hospital 40% of the total sample which is 188, from Felege Hiwet hospital 165 and from Debre Markos hospital 117 outpatients were selected.

**Method of Data Analysis**

Descriptive statistics was employed to analyze the demographic characteristics of the respondents. Confirmatory analysis was employed to evaluate the validity of the data and to check how much the selected indicators items evaluate the factors (the dimension of service quality) measured the constructs in by sample data collected and SEM was applied to the SERPERF model in public health care organization. Independent t-test also applied to measure the perceived quality affected by the living place of the clients.

**VI. RESULT**

**6.1: Demographic characteristics of Respondents**

The findings of the survey revealed that the sample of clients of the hospitals consisted of 47.5% of male and 52.5% of female. With respect to age, the highest proportion of the respondents (36.3%) fell into above 40 year age group, followed by 20% of the age group of between 20-25 year age the remaining age group 26-30, 31-35 and 36-40 proportionate the percent of 16.4%, 14.9% and 11.9% respectively. The question on the living place of the hospital clients showed that 50.5% of the respondents come from rural area and 49.5% of respondents live in urban area.

**6.2: Reliability**

**Table 1 :- Reliability Result**

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Variable</th>
<th>Cronbach’s α Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tangibility</td>
<td>0.729</td>
</tr>
<tr>
<td>2</td>
<td>Reliability</td>
<td>0.923</td>
</tr>
<tr>
<td>3</td>
<td>Responsiveness</td>
<td>0.808</td>
</tr>
<tr>
<td>4</td>
<td>Assurance</td>
<td>0.777</td>
</tr>
<tr>
<td>5</td>
<td>Empathy</td>
<td>0.853</td>
</tr>
</tbody>
</table>

To test the reliability of scale and the internal consistencies of the five dimensions the SERVQUAL model suggested by Parasuraman et al. (1988) and used to evaluate the perceived service quality as SERVPERF developed by Cronin and Taylor (1992) by using Cronbach’s α value. The acceptable lower limit for Cronbach’s alpha is 0.70 (Robinson, Shaver, and Wrightsman 1991; Robinson and Shaver 1973). Through this item analysis, all factors were individually analyzed and calculated alpha values are above 0.70. All five
factors exceeded the minimum value of 0.70, thereby indicating a high level of internal consistency and reliability. The reliability scores for the public health service organization clients are shown in Table 1. Thus, the SERVPERF instrument is reasonably satisfactory to be used for the public health care service organization. The result of Cronbach’s α values of the data collected from the sample ranging from 0.777 up to 0.923 it is above the minimum requirement level of reliability. Therefore the value of the Cronbach’s α show that these measures are reliable.

### Table 2: Descriptive Statistics Result

<table>
<thead>
<tr>
<th>Variable</th>
<th>Living Place</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Levene's Test</th>
<th>T-Value</th>
<th>Sig 2-Tailed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>F-Value</td>
<td>Sig</td>
<td>T-Value</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sig 2-Tailed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tangibility</td>
<td>Rural</td>
<td>109</td>
<td>2.5917</td>
<td>.98581</td>
<td>1.893</td>
<td>.170</td>
<td>1.753</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>293</td>
<td>2.4104</td>
<td>.89751</td>
<td>.052</td>
<td>.820</td>
<td>.020</td>
</tr>
<tr>
<td>Reliability</td>
<td>Rural</td>
<td>109</td>
<td>2.3505</td>
<td>1.03357</td>
<td>.052</td>
<td>.820</td>
<td>.020</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>293</td>
<td>2.3481</td>
<td>1.07756</td>
<td>.052</td>
<td>.820</td>
<td>.020</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>Rural</td>
<td>109</td>
<td>2.7018</td>
<td>.88026</td>
<td>2.232</td>
<td>.136</td>
<td>.707</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>293</td>
<td>2.6271</td>
<td>.96284</td>
<td>.060</td>
<td>.807</td>
<td>.935</td>
</tr>
<tr>
<td>Assurance</td>
<td>Rural</td>
<td>109</td>
<td>2.1896</td>
<td>.97749</td>
<td>.060</td>
<td>.807</td>
<td>.935</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>293</td>
<td>2.0830</td>
<td>1.02940</td>
<td>.060</td>
<td>.807</td>
<td>.935</td>
</tr>
<tr>
<td>Empathy</td>
<td>Rural</td>
<td>109</td>
<td>2.5933</td>
<td>.98063</td>
<td>.361</td>
<td>.548</td>
<td>-.234</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>293</td>
<td>2.6183</td>
<td>.94111</td>
<td>.361</td>
<td>.548</td>
<td>-.234</td>
</tr>
</tbody>
</table>

A summary of respondents answer for the quality of service measure provide in table 2. Regarding to reliability the result of the descriptive statistics shown that the mean difference of urban and rural place clients were comparable relatively with nearer standard deviation. While there is slight difference between group mean difference of these two groups in the perception of tangibility, responsiveness, assurance and empathy. The result of the descriptive statistics indicated that both groups agreed that all of the service quality dimensions performance and availability were below average level in the selected hospitals. The result of sample t-test clearly demonstrates that there is no significant difference between group mean. The p-value are 0.080, 0.984, 0.480, 0.350 and 0.815, therefore, the mean difference of the two group mean is not statistically significant at 5% level of significance. These indicated that both urban and rural clients of the hospital have similar perception about the service quality.

### 6.3 Confirmatory Factor Analysis

<table>
<thead>
<tr>
<th>Chi Square/ Df</th>
<th>P-value</th>
<th>GFI</th>
<th>CFI</th>
<th>TLI</th>
<th>RMR</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.844</td>
<td>0.000</td>
<td>.929</td>
<td>.962</td>
<td>.955</td>
<td>.075</td>
<td>0.046</td>
</tr>
</tbody>
</table>

In the previous researches there were 22 original indictor items developed for five constructs of service quality model. After applying promax rotation 21 items of loaded on five factors. The criterion for the number of factors extracted was determined by eigenvalues greater than one. The factor structure was confirmed based on the previous researches conducted by Ramseook, Lukea & Naidoo (2010). The total amount of variation explained is 58.1 percent.
This percent indicated good percentage of variation. Individual factor loading ranges from 0.519 to 0.860.

![Diagram of Service Quality structural model](image)

Figure 1: The Service Quality structural model

The proposed structural model show service quality consists five dimension including tangibility, reliability responsiveness, assurance and empathy. The data set was examined in the professional health care provider sample. The structural model yielded overall fit with $X^2=326.84, \text{Df}=178, \text{CMIN/DF}=1.833, \text{GFI}=0.930, \text{CFI}=0.962, \text{TIL}=0.956, \text{RMR}=0.075$ and $\text{RMSEA}=0.045$. The result indicated that the model has good fit in the sample of professional health care provider of public health care sectors. All of the indictor GFI, CFI and TIL are above acceptable threshold level of (Hair et al. 2009; Kline 1998; Byrne 2001). The outcome of the confirmatory factor analysis suggests that all five dimensions contribute significantly to customer perceptions of service quality.

VII. DISCUSSION

The overall perception of the service quality of the health care service organization in selected sample data set mean value ranges from 2.11-2.64 this indicated that the overall perceived quality of the selected sample respondents were below average level. The result implied that many of the out patients who lived in rural or urban area have not great satisfaction in the service delivery of the hospitals. This result of this study is consistent with previous research results Prabh & Soolakshna (2010) they found that major gaps in major dimension off service quality. And also consistent with the result of the study conducted in the hospitals of Eastern Ethiopia (Abdosh 2016).

This study also checks whether the service quality in public health service sector is multidimensional or not and also the measured variables can measure the stated factors. The model initially consisted 22 items off which 4 items measured tangibility, five items designed reliability, four items measure responsiveness, three items measure assurance and the rest six items measured empathy. After factor analysis only 21 items used to measure the
five factors the second item of the indicator of reliability was deleted because of smaller factor loading it was below. 50. The finding shown that all items designed by Parasuraman et al. (1988) measured the stated factors of service quality The finding indicated that the multidimensionality of the service quality also satisfactory in conceptualization of the SERPERF model in public hospitals. This finding is consistent with the previous research conducted on public service organization Charles (2006) also assure the multi level and multidimensionality of service quality in the report of the study. Although the regression weight of reliability, responsiveness and empathy is lower, the result in

VIII. CONCLUSION AND MANAGERIAL IMPLICATION

The study tried to present the findings of assessing perceptions of service quality for customer’s perception of public hospitals delivery. The results of this analysis provide evidence that the service quality gaps indicated that the public hospitals were failing to meet the expectations of their patients. As a result of analysis all type of customers have similar perception in different dimensions of service quality. Therefore in order to improve the perceived quality of the hospitals managements give attention for making the hospitals appeal to the service that expected and give trainings for the professional to be sensitive and responsive to their clients.

The study assesses the perceived quality of the public health care sectors buy using SERVPERF model. Evaluate how much the stated dimension measure the perceived quality of the public health care service quality. This study was therefore able to highlight how important it is for an organization, be it a public sector organization, to conduct a survey and consider the opinions of its customers in identifying areas for service quality improvements.

IX. REFERENCES

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