An assessment of service quality in the hospitality industry

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ABSTRACT

Purpose: This study examines the relationship between service quality and customer satisfaction in the hospitality industry using the Bolgatanga Municipality in the Upper East Region of Ghana as a case study.

Design/Methodology/Approach: This study used a case study design and a quantitative approach. The study used both secondary and primary data. The secondary data was gathered from textbooks, reports and journal publications. The primary data were collected from a purposively selected sample of one hundred and fifty respondents using a structured closed-ended questionnaire. The respondents were customers of bars and restaurants in Bolgatanga municipality. Principal axial factor analysis was used to analyze the data to examine the relationship between service quality and customer satisfaction.

Findings: The analysis revealed that almost 43% of the service quality gaps in the hospitality industry in Bolgatanga municipality are accounted for by the five service quality factors, namely tangibility, reliability, responsiveness, accuracy and empathy. The empirical evidence suggests a positive relationship between service quality and customer satisfaction.

Conclusion: The results confirmed that all five service quality factors have a positive relationship with customer satisfaction. The research supports the call for service quality to be used as a strategy for sustainable business development.

Keywords: *Customer loyalty, Customer satisfaction, Quality dimensions, Service quality gap, Service-provider.*

1. INTRODUCTION

The COVID-19 pandemic resulted in the use of specific measures such as masks, regular hand washing, social distancing and the use of hand sanitizers which enhanced the global standard of service quality especially in the hospitality industry. Consumer organizations and regulatory organizations raised public knowledge about their rights to quality goods and services. Thus, service providers in Ghana's hospitality industry needed to understand customer satisfaction and how to attain it (Angelova & Zekiri, 2011). Customer satisfaction in the hospitality industry is influenced by factors such as a clean and serene environment, polite and courteous staff, flexibility in terms of choice of food and drink and how quick managers are able to attend to customers who complain. Competition in the hospitality industry in Ghana increases as more investors enter. Therefore, operators in the hospitality industry who are able to provide quality services are more likely to retain their customers, generate good returns on their investments and stay in the industry for a long time (Mhlanga, 2018). It is no longer enough for businesses to compete based on price, place, product and promotion but how a service-provider is able to differentiate a product or service from others has become a game-changer in the hospitality industry (Yusof & Aspinwall, 2000). The outbreak of COVID-19 has shown that organizational resilience in the hospitality industry to some extent depends on the use of service quality as a strategy for product differentiation (Anabila, Ameyibor, Allan, & Alomenu, 2022). Consumers have concerns about how their purchases are packaged, served and delivered rather than just what they purchase. Therefore, considerable attention should be given to customer care through the establishment of customer complaint units in order to ensure customer loyalty.

Most people relate eating to having a memorable time with food and drink. However, this expectation is sometimes a mirage as customers are left with unpleasant experiences. Most customers will not complain about a bad experience with a service provider but prefer to share it with friends, family and other acquaintances (Zairi, 2000).This concept has been ignored by many service providers in Ghana's hospitality business while empirical evidence reveals that service quality in the hospitality industry needs significant improvement (Mensah, 2009). Financial, human resource and other constraints have conspired to undermine the potential of the hospitality industry in Ghana to contribute meaningfully to the economy (Amankwah-Amoah, Debrah, Honyenuga, & Adzoyi, 2018).

According to the Ghana Tourists' Board Annual Report (2008), most small operators in the hospitality industry believe that service quality is for the big hotels and restaurants despite the small operators being the majority. This is evident in the unskilled labour often recruited to work in restaurants and bars either as kitchen attendants or waiters. Some operators also fail to use modern electrical gadgets in their operations but prefer manual labour which can undermine quality. Therefore, this study seeks to assess service quality in the hospitality industry in Ghana using Bolgatanga municipality as a case study in order to call for service quality to be used as a strategy for sustainable business development in the industry.

2. LITERATURE

According to Zygiaris, Hameed, Ayidh Alsubaie, and Ur Rehman (2022), service quality is the extent to which a service rendered meets the expectations of a client. Pakurár, Haddad, Nagy, Popp, and Oláh (2019) described customer satisfaction as the approval or disapproval expressed by a client after comparing performance with expectations. Studies in the hospitality industry suggest that service quality has a significant influence on customer satisfaction in bars and restaurants (Clemes, Gan, & Sriwongrat, 2013). Earlier service quality researchers developed the following concepts: Grönroos's (1984) three component structure: technical, functional and reputational quality, Lehtinen and Lehtinen (1982) describe three component concepts: iterative, physical and corporate quality, Hedvall and Paltschik (1989) describe a two dimensional model: willingness and ability to serve as well as physical and psychological access. Garvin (1988) describe nine dimensional concepts: performance, features, conformance, reliability, durability, serviceability, response, aesthetics and reputation. Rust and Oliver (1994) describe three dimensional model: functional, technical and environmental quality. Parasuraman, Zeithaml, and Berry (1988) describe five service quality dimensions: tangibility, reliability, responsiveness, assurance and empathy all of which support the assertion that customer satisfaction depends on service quality. Recent studies by Amankwah-Amoah et al. (2018) in business and governance interdependence in economies-insights from hotels in Ghana, Anabila et al. (2022) in service quality and customer satisfaction in the Ghanaian hotel industry-the mediation effects of satisfaction and delight, Arici, Cakmakoglu, and Altinay (2023) in the use of big data analytics to discover customers' perception of and satisfaction with green hotel service quality, Nyagadza, Mazuruse, Muposhi, and Chigora (2022) in the effect of hotel overall service quality on customers' attitudinal and behavioural loyalty-perspectives from Zimbabwe and Zygiaris et al. (2022) in service quality and customer satisfaction in the post-pandemic world also confirmed that service quality is a pre-requisite to customer satisfaction.

2.1. Service Quality Dimensions
2.1.1. Tangibility
Tangibility as a service quality dimension refers to the facilities, equipment, technology, appearance of staff and materials involved in providing the service (Pakurár et al., 2019). Bars and restaurants with a beautiful physical ambience are likely to attract more customers than those with poor physical structures because a beautiful physical ambience conveys a sense of quality (Zeithaml, Bitner, & Gremler, 2006).

2.1.2. Reliability
Reliability represents how the operators of bars and restaurants are able to deliver on their promises to customers. Most customers will prefer a service provider that is consistent and concise in service delivery (Zeithaml et al., 2006). Even though this service quality dimension is often difficult to achieve, it is very critical to securing customer loyalty.

2.1.3. Responsiveness

Responsiveness relates to how quickly service providers are able to resolve concerns raised by customers. The ability of bar and restaurant operators to respond promptly to questions from customers is a pre-requisite to customer satisfaction (Har, 2008). Delays in responding to customers' complaints by bar and restaurant operators may lead to resentment and disloyalty.

2.1.4. Assurance

Assurance refers to how a service provider is able to develop confidence and trust in the organization (Pakurár et al., 2019). This service quality dimension may vary from one service provider to the next but the service provider who fosters trust and confidence in customers is likely to be more appealing to customers due to the risk associated with consuming food and drink (Andaleeb & Conway, 2006).

2.1.5. Empathy

Empathy in service quality implies treating every customer as unique and very special to the operations of a bar or restaurant (Har, 2008). There are various categories of customers with peculiar needs and the ability of a service provider to segregate customers and satisfy them according to their needs is paramount to securing customer loyalty.
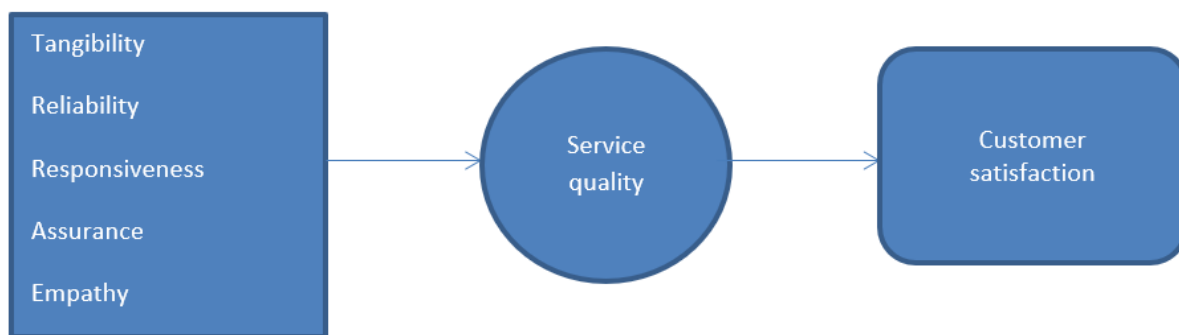

Figure 1. Service quality dimension.

The five service quality dimensions of Parasuraman et al. (1988) eventually led to the development of the SERVQUAL Model. Figure 1 illustrates the contribution of the five service quality dimensions: tangibility, reliability, responsiveness, assurance and empathy to service quality which results in customer satisfaction. A service quality that meets a customer's expectations will lead to customer satisfaction and vice versa.

2.2. The Gap Model

The five service quality dimensions developed by Parasuraman et al. (1988) are often conceptualized as the differences between customers' expectation and perceptions. These differences are the service quality gaps that service providers must seek to bridge in order to achieve customer satisfaction.

Gap 1: Customer expectation and management perception gap
There are often gaps between customers' expectations and management's perception of these expectations. Managers of bars and restaurants do not always understand what features a service or product must have to signify service quality (Parasuraman, Zeithaml, & Berry, 1985).

Gap 2: Management perception and service quality specification gap
This is the difference between management's perception of customers' expectations and the actual quality delivered by a service provider due to factors such as limited resources, demand and supply conditions as well as failure to comply with service quality standards established by regulatory bodies (Parasuraman et al., 1985).

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Gap 3: Service quality specification and service delivery gap
This quality gap refers to the discrepancy between the standards set by the hospitality industry and the actual performance of employees (Parasuraman et al., 1985). Bar and restaurant owners are not quite successful in achieving their goals due to the poor performance of their employees. The quality standards that operators of bars and restaurants wish to achieve sometimes elude them due to the poor performance of their employees.

Gap 4: Service delivery and external communication gap
This quality gap depicts the difference between the actual service delivered and what was promised to the customer through external communication or advertisement (Parasuraman et al., 1985). Sometimes, what the operators of bars and restaurants promise their customers is not what they actually deliver. There may even be miscommunication leading to the wrong product or service being delivered.

Gap 5: Expected service and perceived service
This gap represents the overall service quality gap that a customer may perceive. It is the gap between a customer's expectation and the perception on the part of employees and managers (Zeithaml & Bitner, 2003). This gap will obviously lead to customer dissatisfaction and should be avoided by operators of bars and restaurants at all costs.

3. METHODOLOGY
The study adopted a case study design and a quantitative research approach. Data was collected from both primary and secondary sources. The secondary data was collected from books, journals and reports. The primary data was gathered using a closed-ended Likert scale questionnaire from a purposively selected sample size of one hundred and fifty   respondents made up of customers of bars and restaurants in the Bolgatanga Municipality. The sample size was purposively selected due to the homogeneous nature of the respondents. Principal axial factor analysis was used to analyse the relationship between the two main variables service quality and customer satisfaction.

4. DATA PRESENTATION AND ANALYSIS
4.1. Principal Component/Principal Axis Factor Analyses of Data
Table 1 represents descriptive statistics for each variable and the analysis N. The analysis N is below 150 representing the responses of all participants in the survey for all variables and their corresponding mean and standard deviation. A critical observation from the above table indicates the mean of each variable is greater than 2.0 except "order" which has a mean of 1.9000 with a corresponding standard deviation of 0.93944. Thus, the standard deviation for each variable is relatively low compared to their respective means and the research can conclude that the data are clustered around the mean.

Table 1. Descriptive statistics.

Description	Mean	Std. deviation	Analysis N
Parking	2.360	1.064	150
Dining	2.147	0.937	150
Clean	2.053	0.954	150
Comfort	2.280	1.973	150
Promise	2.500	1.048	150
Wrong	2.480	0.988	150
Arrival	2.293	1.078	150
Order	1.900	0.939	150
Preparation	2.587	1.017	150
Speed	2.387	1.041	150
Service	2.587	1.063	150
Request	2.707	1.046	150
Follow up	2.940	1.012	150

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Description	Mean	Std. deviation	Analysis N
Queries	2.566	1.107	150
Comfortable	2.287	1.006	150
Experience	2.513	1.047	150
Friendly	2.093	0.907	150
Sensitive	2.673	1.052	150
Special	2.680	0.971	150
Sympathetic	2.600	0.976	150
Interest	2.600	1.003	150

4.2. Correlation Matrix

Table 2 is a representation of a correlation matrix which shows that each of the 21 items is associated with each of the other 20 items. The table shows that some correlations are high (+ or - 0.50 or greater) while others are low (around zero). The above statistics show that both items are linked and will most likely be grouped together by the factor analysis. Items with low correlation (example, ≤ 0.20) will not have high loadings on the same factor. However, the assumption is that the determinant (.001) which is located under the correlation matrix should be greater than 0.0001. The determinant is 0.001 indicating that the assumption is met. A zero determinant would have meant that a factor analytic solution cannot be obtained because it would require dividing by 0   which would mean that at least one of the items can be understood as a linear combination of some set of the other items.

Table 2 depicts the correlation matrix between the variables. A correlation matrix explains the relationship or interdependence between two or more variables. A correlation factor of 1.000 implies that there is a strong positive relationship between the variables. On the other hand, a factor of 0.500 shows a fairly positive relationship between the variables. A factor less than 0.500 shows that there is a weak positive relationship between the variables. There is no relationship between the variables when the factor is 0.000. However, a negative or inverse relationship exists between the variables whenever the factors are negative. The factors depicted in Table 2 are all positive which shows that each variable has a positive impact on service quality.

Table 2. Correlation matrix.

Variable	Parking	Dining	Clean	Comfort	Promise	Wrong	Arrival	Order	Preparation	Speed	Service	Request	Follow up	Queries	Comfortable	Experience	Friendly	Sensitive	Special	Sympathetic	Interest
Parking	1.000	0.472	0.325	0.201	0.458	0.288	0.305	0.070	0.058	0.358	0.322	0.319	0.195	0.384	0.286	0.381	0.097	0.304	0.262	0.366	0.230
Dining	0.472	1.000	0.164	0.224	0.219	0.257	0.210	0.093	0.001	0.347	0.149	0.161	0.108	0.230	0.233	0.340	0.055	0.117	0.170	0.087	0.177
Clean	0.325	0.164	1.000	0.185	0.235	0.386	0.389	0.261	0.216	0.270	0.300	0.224	0.184	0.340	0.334	0.308	0.250	0.138	0.279	0.290	0.156
Comfort	0.201	0.224	0.185	1.000	0.159	0.120	0.109	0.261	0.145	0.231	0.033	0.157	0.119	0.191	0.220	0.105	0.019	0.203	0.222	0.132	0.250
Promise	0.458	0.219	0.235	0.159	1.000	0.311	0.369	0.065	0.076	0.388	0.470	0.380	0.307	0.304	0.309	0.333	0.184	0.332	0.218	0.446	0.268
Wrong	0.288	0.257	0.386	0.120	0.311	1.000	0.415	0.153	0.292	0.458	0.401	0.286	0.298	0.486	0.259	0.441	0.107	0.358	0.406	0.263	0.344
Arrival	0.305	0.210	0.389	0.109	0.369	0.415	1.000	0.301	0.111	0.395	0.470	0.428	0.343	0.411	0.529	0.430	0.377	0.434	0.391	0.393	0.258
Order	0.070	0.093	0.261	0.261	0.065	0.153	0.301	1.000	0.153	0.102	0.173	0.134	0.184	0.190	0.123	0.073	0.184	0.204	0.119	0.073	0.028
Preparation	0.058	0.001	0.216	0.145	0.076	0.292	0.111	0.153	1.000	0.183	0.077	0.131	0.217	0.209	0.162	0.037	0.071	0.305	0.252	0.143	0.225
Speed	0.358	0.347	0.270	0.231	0.388	0.458	0.395	0.102	0.183	1.000	0.327	0.388	0.252	0.350	0.355	0.420	0.139	0.312	0.408	0.325	0.374
Service	0.322	0.149	0.300	0.033	0.470	0.401	0.470	0.173	0.077	0.327	1.000	0.313	0.358	0.388	0.375	0.541	0.235	0.364	0.332	0.370	0.190
Request	0.319	0.161	0.224	0.157	0.380	0.286	0.428	0.134	0.131	0.388	0.313	1.000	0.427	0.474	0.444	0.279	0.234	0.400	0.290	0.469	0.329
Follow up	0.195	0.108	0.184	0.119	0.307	0.298	0.343	0.184	0.217	0.252	0.358	0.427	1.000	0.300	0.241	0.245	0.372	0.335	0.226	0.281	0.287
Queries	0.384	0.230	0.340	0.191	0.304	0.486	0.411	0.190	0.209	0.350	0.388	0.474	0.300	1.000	0.305	0.471	0.134	0.390	0.432	0.434	0.320
Comfortable	0.286	0.233	0.334	0.220	0.309	0.259	0.529	0.123	0.162	0.355	0.375	0.444	0.241	0.305	1.000	0.274	0.287	0.330	0.493	0.336	0.400
Experience	0.381	0.340	0.308	0.105	0.333	0.441	0.430	0.073	0.037	0.420	0.541	0.279	0.245	0.471	0.274	1.000	0.105	0.336	0.367	0.379	0.344
Friendly	0.097	0.055	0.250	0.019	0.184	0.107	0.377	0.184	0.071	0.139	0.235	0.234	0.372	0.134	0.287	0.105	1.000	0.187	0.232	0.232	0.130
Sensitive	0.304	0.117	0.138	0.203	0.332	0.358	0.434	0.204	0.305	0.312	0.364	0.400	0.335	0.390	0.330	0.336	0.187	1.000	0.389	0.375	0.333
Special	0.262	0.170	0.279	0.222	0.218	0.406	0.391	0.119	0.252	0.408	0.332	0.290	0.226	0.432	0.493	0.367	0.323	0.389	1.000	0.267	0.439
Sympathetic	0.366	0.087	0.290	0.132	0.446	0.263	0.393	0.073	0.143	0.325	0.370	0.469	0.281	0.434	0.336	0.379	0.232	0.375	0.267	1.000	0.425
Interest	0.230	0.177	0.156	0.250	0.268	0.344	0.258	0.028	0.225	0.374	0.190	0.329	0.287	0.320	0.400	0.344	0.130	0.333	0.439	0.425	1.000

Note: Determinant = 0.001.

4.3. Kaiser-Meyer-Olkin and Bartlett's Test
The KMO and Bartlett's tests are presented in Table 3.

Table 3. KMO and Bartlett's test

Kaiser-Meyer-Olkin measure of sampling adequacy.		0.872
Bartlett's test of sphericity	Approx. Chi-square	1028.238
	Df	210
	Sig.	0.000

The KMO and Bartlett's tests used above basically represent tests of assumption. The KMO reveals to the researcher whether or not enough items are predicted by each factor. The KMO measure of sampling adequacy should be greater than 0.50 indicating sufficient items for each factor. According to the statistical result above, the KMO is 0.872 which is more than 0.50 and hence beneficial to the researcher. The analysis's Bartlett test should be significant with a significance value less than 0.50. The statistics from the above table present a significance (sig.) value of 0.000 less than 0.05 indicating that the correlation matrix is significantly different from an identity matrix in which correlations between variables are all zero. This means that the variables are correlated enough to provide a reasonable basis for factor analysis as in this case.

Table 4. Total variance explained.

Factor	Initial eigenvalues		
	Total	% of variance	Cumulative %
1	6.728	32.039	32.039
2	1.481	7.053	39.093
3	1.358	6.467	45.560
4	1.233	5.874	51.433
5	1.103	5.252	56.685
6	0.994	4.736	61.421
7	0.856	4.078	65.499
8	0.842	4.009	69.508
9	0.744	3.542	73.050
10	0.721	3.432	76.481
11	0.669	3.185	79.666
12	0.605	2.882	82.548
13	0.564	2.688	85.236
14	0.507	2.412	87.648
15	0.493	2.348	89.996
16	0.451	2.149	92.145
17	0.376	1.793	93.938
18	0.359	1.710	95.648
19	0.337	1.603	97.251
20	0.312	1.485	98.736
21	0.265	1.264	100.000

4.4. Total Variance Explained
Table 4 represents the total variance explained by the data gathered from respondents. The table shows how the variance is divided among the 21 possible factors. According to the statistics presented above, five variables have Eigenvalues (a measure of explained variance) greater than 1.0. These are items 1, 2, 3, 4 and 5 with Eigenvalues 6.728, 1.481, 1.358, 1.233 and 1.103 respectively which is a common criterion for a factor to be useful. The remaining items with Eigenvalues less than 1.0 mean that their factor explains less information than a single item would have explained. A total cumulative variance of 43.067% was obtained suggesting that the top five factors account for nearly half of the variance in terms of the percent of covariation across items accounted for by each

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component before and after rotation based on these five factors which means that the final factors will be at right angles with each other. As a result, it can be concluded on the assumption that the information explained by one factor is independent of the information in the other factors.

Table 5. Rotated factor matrix.

	Factor				
	1	**2**	**3**	**4**	**5**
Request	0.609				
Sympathetic	0.607				
Promise	0.516				
Arrival	0.431				
Comfortable	0.402				
Follow up	0.334				
Sensitive	0.309				
Experience		0.635			
Service		0.587			
Wrong		0.581			
Queries		0.439			
Interest			0.537		
Special			0.482		
Preparation			0.463		
Dining				0.647	
Parking				0.595	
Comfort				0.463	
Speed				0.401	
Order					0.534
Friendly					0.431
Clean					0.411

4.5. Rotated Factor Matrix
Table 5 is a representation of the rotated factor matrix. Factors are rotated in this study to make them easier to comprehend. The rotation ensures that the different items are explained or predicted by the different underlying factors and each factor explains more than one item. According to the table, the analysis divided the 21 questions into five relatively overlapping groups of items. The items are sorted so that the items that have the highest loading from factor 1 are listed first. They are sorted from the one with the highest factor weight or loading (that is, request, with a loading of 0.609 to the one with the lowest loading from the first factor (that is sensitive with a loading of 0.309). The items with their loadings from factor 2 are listed from the highest loading (experience) to the lowest (queries) in a descending order. The other items are also listed from the highest to the lowest in the other factors (3, 4 and 5) respectively. All loadings are positive which means that questions are interpreted in the right direction just like the way it is written for that factor in the results. The researchers observed that all items have a high loading from each factor and the fact that they have a strong loading from the same factor provides some support for them being conceptualized pertaining to the same construct.

5. DISCUSSION
The data analysis was done using the principal component analysis also known as the principal axis factor analysis which analysed the variables assessing service quality in the hospitality industry in the Bolgatanga municipality. The factor analysis for this particular study had two main variables i.e. service quality and customer satisfaction. The identified sub components of service quality were further grouped into dimensions namely tangibility, reliability, responsiveness, assurance and empathy. The data was analyzed to test the five service quality dimensions and find out whether responses from participants in the survey are similar. If their responses are similar (if yes), it means that customer satisfaction is mainly dependent on the quality of services provided by

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restaurant and bar operators or that there is a positive relationship between customer satisfaction and the services provided by operators of restaurants and bars. If not, customer satisfaction is more likely to be a personal call than as a result of service quality provision.

5.1. Descriptive Statistics

The descriptive statistics of the study measured the standard deviation of the variables studied under each of the five dimensions. The results showed that the standard deviation for the variables analysed was lower indicating that the data was more clustered. This means that each variable studied has a more reliable mean giving the researchers proof of the   reliability of the data. It conclusively states that variables rely more on each other proving a relationship between service quality provision and customer satisfaction.

5.2. Correlation Matrix

A correlation matrix analysis was performed to identify the relationship between service quality provision and customer satisfaction based on the descriptive statistics. The correlations of variables in this study are in two forms:

- Those with a higher correlation (positive) (determinant /range ≥ 0.0001).
- Those with a lower correlation (negative) (range< 0.0001).

Variables or items with a high or positive correlation indicate that these variables measure the same characteristics while variables falling under a lower correlation measure different characteristics or may not be clearly defined.

The statistics above show that the variables are related to one another. The majority of the variables are highly correlated which means they measure customer satisfaction with the services provided by restaurants and bar operators going by the determinant (0.0001) in the statistics. The results indicate a positive relationship between the two main variables i.e. service quality and customer satisfaction.

5.3. Kaiser-Meyer-Olkin (KMO) and Bartlett's Test

This test analysis evaluated all twenty-one items under the five sub-variables together. A KMO value of over 0.5 and a significance level for the Bartlett's test below 0.05 suggest that there is a substantial correlation in the   data. The researchers obtained 0.872 KMO based on these results   indicating that the variable collinearity suggests a strong single variable that is associated with other variables. Furthermore, the results of the correlation matrix based on the factors analyzed indicate that there is a significant positive relationship between customer satisfaction and the services provided by bars and restaurants in the Bolgatanga municipality.

5.4. Total Variance Explained (Eigenvalue)

The Eigenvalue represents the total amount of variance that can be explained by a given principal component. The Eigenvalue is either positive or negative. If the Eigenvalue is positive and greater than zero, it is a good sign showing the relationship between variables. Five factors have Eigenvalues (a measure of explained variance) greater than 1.0 from the above statistics. These are items 1, 2, 3, 4 and 5 with Eigenvalues of 6.728, 1.481, 1.358, 1.233 and 1.103 respectively. These factors represent a positive relationship between customer satisfaction and service quality and have been rotated to represent the rest of the factors for an easy interpretation of their relationship. As a result, it can be concluded on the assumption that the information obtained by one factor is dependent on the information in the other factors.

6. CONCLUSION

The twenty-one questions relating to the relationship between service quality, its dimensions and customer satisfaction were factor analyzed using principal component analysis with varimax (orthogonal) rotation. The analysis resulted in all five service quality factors   explaining a total of 43.067% of the variance for the entire set of variables. Factor 1 was labeled tangibility of service quality due to the high loadings of the following items: request, sympathetic and promise. This first factor explained 13.083% of the variance. The second factor derived was the reliability of   the staff. This factor was labeled due to the high loading of the following items: experience, service and quality. The variance explained by this factor was 9.737%. The third factor derived was the responsiveness of staff to customers due to the high loading of items. The variance explained by this factor was

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7.855%. The fourth factor derived was how assurance affects the   level of customer satisfaction due to the high loading of the following items: dining and parking. The variance explained by this factor was 7.055% and the fifth factor derived was how empathetic bars and restaurants in the Bolgatanga municipality are. The variance explained by this factor was 5.337%. The communalities of the variables included are rather low with one variable having a small amount of variance in common with the other variables in the analysis. However, the KMO and Bartlett's test of sphericity indicate that the set of variables are at least adequately related for factor analysis with a high correlation. This empirical study revealed that 43% of the service quality gaps in the bars and restaurants in the Bolgatanga municipality are accounted for by the five service quality dimensions. The study recommends further studies into how cost and affordability affect service quality in the hospitality industry.

INSTITUTIONAL REVIEW BOARD STATEMENT
The Ethical Committee of the Bolgatanga Technical University, Ghana has granted approval for this study on 22 September 2021 (Ref. No. SMS/EA/009/2021).

TRANSPARENCY
The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

COMPETING INTERESTS
The authors declare that they have no competing interests.

AUTHORS' CONTRIBUTIONS
Visualization, supervision, review and the writing of the original draft, E.A.; data curation and methodology, E.N.K.; investigation and draft editing, M.A. All authors have read and agreed to the published version of the manuscript.

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