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Service Quality Gap Analysis For Quick Service Restaurants

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INTRODUCTION

Customers do not purchase things or services; they acquire the advantages that these items and services offer. They procure offerings that encompass commodities, services, information, personal attention, and additional elements. Customers are the essential foundation of any organisation; without them, a corporation lacks sales and profits. Consequently, there is no market value. Quick Service Restaurants (QSRs) have become a fundamental component of contemporary dining, offering convenience, cost-effectiveness, and rapid service. Nonetheless, delivering superior service while preserving efficiency continues to pose a significant issue. High personnel turnover, operational bottlenecks, and inconsistent consumer experiences often lead to dissatisfaction. This dissertation examines these difficulties using the SERVQUAL model, which identifies discrepancies between customer expectations and actual service performance. The study examines how technological advancements, employee training, and consumer feedback might address these deficiencies to improve service quality.

Service Quality Determinants and the SERVQUAL Instrument

In the mid-1980s, Berry and his associates, Parasuraman (1985) and Zeithaml (1985), began to examine the factors of service quality and how clients evaluate service quality based on the Perceived Service Quality concept. The ten criteria were identified as characterising clients' perspectives of the administration. One variable, capacity, is linked to the technical nature of the outcome, while another, integrity, is closely tied with the image aspect of perceived quality. Nonetheless, it is fascinating to observe that the remaining factors are largely associated with the procedural dimension of perceived quality.

Rationale Of Study

In a business where rapidity and efficacy are paramount, service quality can determine client loyalty. Subpar service experiences might compel customers to seek alternatives, resulting in revenue decline and harm to company reputation. Comprehending the fundamental reasons of service quality discrepancies and identifying appropriate remedies is crucial for sustained success. This research seeks to deliver practical insights for restaurant proprietors, managers, and policymakers to improve consumer experiences. The research examines how contemporary innovations, including AI-driven customer assistance, self-service kiosks, and data analytics, might enhance service delivery and address quality discrepancies.

Objectives Of Study

- To assess the present condition of service quality in quick service restaurants (QSRs).
- To identify essential locations where service delivery is inadequate.
- To evaluate the influence of service quality discrepancies on customer satisfaction and brand loyalty.
- To offer pragmatic suggestions for reducing service deficiencies and enhancing client experiences.

LITERATURE REVIEW

- Siu & Cheung (2001) by using Retail Service Quality Scale to study the service quality delivery of a department store chain and its impact on consumption behaviour, it is found that the impact of physical appearance and the policy are prominent on the overall perceived service quality and the future shopping behaviour. Out of all service dimensions, physical appearance and policy have the major impact on the overall service quality and on future consumption respectively by delivering service to customers on time.

- Selvakumar (2015) have examined the impact of service quality on customer satisfaction in public sector and private sector banks in Coimbatore and the relative differences attached with the various determinants of service quality using the SERVQUAL model.

SERVQUAL Model:

The SERVQUAL model, developed by Parasuraman, Zeithaml, and Berry (1988), is widely used to measure service quality. It is based on five key dimensions that shape customer perceptions:

- **Tangibility:** The physical aspects of the service environment, including cleanliness, employee appearance, and equipment quality.
- **Reliability:** The ability to deliver promised services accurately and consistently.
- **Assurance:** The professionalism, knowledge, and courtesy of employees, which inspire trust and confidence.
- **Empathy:** The level of personalized attention and care given to customers.

RESEARCH METHODOLOGY

Research Problem

Businesses frequently adhere to the principle that "the customer is always right," as satisfied customers are likely to persist in their purchases. Consequently, it is crucial to evaluate the quality of service offered by various eateries by doing convenience or snowball sampling while simultaneously identifying any service gaps present in those establishments.

Significance of study

The proposed research examines the prospects, challenges, risks, and benefits of developing a comprehensive, end-to-end strategy to service quality management about restaurants by doing convenience or snowball sampling. This research aims to discover and rectify service quality deficiencies, so enabling QSR enterprises to enhance client experiences, foster brand loyalty, and secure a competitive advantage. The results will offer direction for industry executives and politicians in formulating customer-centric service initiatives. The study will also emphasise future trends in service quality management, taking into account evolving customer behaviours and potential technological advancements. Customer service enhances brand visibility, as satisfied customers are far more inclined to disseminate good feedback and evaluations, resulting in recommendations without incurring additional customer acquisition costs. When the organisation delivers exceptional service quality, individuals begin to disseminate positive information about it. Numerous studies indicate that superior service, rather than competitive pricing, significantly influences client purchasing decisions. Contemporary consumers are inclined to maintain loyalty to enterprises they genuinely trust. The market rivalry is intense, making it essential to establish trust and retain clients. Delivering superior services to clients will enhance the company's reputation and market presence. If the company promptly addresses customer complaints and offers expert answers, customer satisfaction will be maintained, and clients will feel their concerns are acknowledged, facilitating further company growth. Contemporary consumers desire to be regarded as individuals rather than mere statistics. He desires acknowledgement of the significance of his opinion and its attention. In light of the aforementioned points, it is essential and pertinent to examine service quality.

Scope of study

The present study aims to determine the service quality gap amongst the selected eateries by doing convenience or snowball sampling. This study focuses on service quality dimensions and quality of service offered to its customers. The eateries were selected on the basis of location, size and offerings. This study makes an effort to understand the gap between the perceived quality and the actual amongst the different eateries by doing convenience or snowball sampling.

RESULTS AND DISCUSSIONS

Service Quality Attributes	Expectation (E)	Perception (P)	Gap (P-E)
Tangibility			

The eatery has visually attractive parking areas and building exteriors.	5	3.59	-1.41
The eatery has visually dining area.	5	3.79	-1.21
The eatery has appropriate, decent and neatly dressed employees.	5	3.85	-1.15
The eatery has a menu that is easily readable.	5	3.69	-1.31
Dining space is spacious and comfortable.	5	3.96	-1.04
The eatery looks clean and neat.	5	3.92	-1.08
Reliability			
The eatery provides the service on time.	5	3.96	-1.04
The eatery quickly corrects everything that is wrong.	5	3.77	-1.23
The eatery offers an accurate calculation of the guests.	5	3.49	-1.51
The eatery serves the food exactly as you have ordered it.	5	3.95	-1.05
Quality			
The food has a nice taste.	5	4.00	-1
Food is served at an appropriate temperature.	5	3.97	-1.03
Food is fresh.	5	3.77	-1.23
The choice of food is different.	5	4.00	-1
Food is served in good portions.	5	3.92	-1.08
Responsiveness			
During the busy hours, the eatery Provides the service at the promised time.	5	3.62	-1.38
The eatery provides quick service.	5	3.62	-1.38
The eatery gives extra effort to handle your special requests.	5	3.75	-1.25
Assurance			
Employees should always be ready to help.	5	3.85	-1.15
Staff should be loyal and honest.	5	4.02	-0.98
Staff should be polite.	5	3.97	-1.03
The eatery has staff who are both able and willing to give you information about menu items, their ingredients, and methods of preparation.	5	3.85	-1.15
The eatery has staff that looks educated, competent and experienced.	5	3.82	-1.18
Empathy			
The eatery has employees who have time for your individual wishes.	5	3.64	-1.36
The eatery makes you feel special.	5	3.77	-1.23
The eatery provides your individual needs and requirements.	5	3.90	-1.10
The eatery has employees who are sympathetic and calm when something is wrong.	5	3.74	-1.26
The eatery seems to have the customers' best interests at heart.	5	3.92	-1.08
Total	**140**	**107.1**	**-32.9**

Comparing the results of customers' expectations and perceptions of small eateries by doing convenience or snowball sampling, service quality doesn't match customers' expectations as an overall mean of customers' expectations (140) exceeds the overall mean of customers' perception (107.1)

- **Research Approach:** A combination of qualitative and quantitative methods.
- **Data Collection:**
  - **Primary Data:** Surveys and interviews with QSR customers.
  - **Secondary Data:** Analysis of industry reports, case studies, and academic literature.
- **Sample Selection:** A diverse group of QSR customers across various locations and demographics.
- **Data Analysis:**
  - SERVQUAL dimensions will be used to assess service quality gaps.
  - Statistical tools will help analyze customer feedback and sentiment.
  - A comparative study of QSRs that have successfully addressed service quality issues.

Demographic Profile of Respondents

A total of 38 respondents participated in the survey. This is as follows:

Category	**Percentage** (%)
Gender	
Male	44.7%
Female	55.2%
Age Group	
18-25 years	71%
26-35 years	10.5%
36-45 years	2.6%
46-55 years	15.7%
Occupation	
Student	73.6%
Employee	10.5%
Business Owner	10.5%
Others	5.2%

Descriptive Statistics

S.no.	N	N*	Mean	SE Mean	StDev	Minimum	Q1	Median
1.	38	0	1.552	0.817	0.503	1.000	1.000	2.000
2.	38	0	1.632	0.183	1.125	1.000	1.000	1.000
3.	38	0	1.474	0.145	0.893	1.000	1.000	1.000
4.	38	0	3.553	0.167	1.032	1.000	3.000	3.500
5.	38	0	3.763	0.170	1.051	1.000	3.000	4.000
6.	38	0	3.816	0.172	1.062	1.000	3.000	4.000
7.	38	0	3.684	0.173	1.068	1.000	3.000	4.000
8.	38	0	3.895	0.150	0.924	1.000	3.000	4.000
9.	38	0	3.895	0.168	1.034	1.000	3.000	4.000
10.	38	0	3.895	0.195	1.203	1.000	3.000	4.000
11.	38	0	3.737	0.184	1.131	1.000	3.000	4.000
12.	38	0	3.474	0.191	1.179	1.000	3.000	3.500
13.	38	0	3.921	0.162	0.997	1.000	3.000	4.000
14.	38	0	3.974	0.171	1.052	1.000	3.000	4.000
15.	38	0	3.974	0.179	1.102	1.000	3.000	4.000
16.	38	0	3.737	0.195	1.201	1.000	3.000	4.000
17.	38	0	3.974	0.158	0.972	1.000	3.000	4.000
18.	38	0	3.789	0.178	1.094	1.000	3.000	4.000
19.	38	0	3.605	0.183	1.128	1.000	3.000	4.000
20.	38	0	3.684	0.156	0.962	1.000	3.000	4.000
21.	38	0	3.711	0.160	0.984	1.000	3.000	4.000
22.	38	0	3.816	0.159	0.982	1.000	3.000	4.000
23.	38	0	3.921	0.162	0.997	1.000	3.000	4.000
24.	38	0	3.947	0.160	0.985	1.000	3.000	4.000
25.	38	0	3.816	0.150	0.926	1.000	3.000	4.000
26.	38	0	3.789	0.165	1.018	1.000	3.000	4.000
27.	38	0	3.605	0.183	1.128	1.000	3.000	4.000
28.	38	0	3.737	0.180	1.107	1.000	3.000	4.000
29.	38	0	3.868	0.169	1.044	1.000	3.000	4.000
30.	38	0	3.711	0.192	1.183	1.000	3.000	4.000
31.	38	0	3.895	0.145	0.894	1.000	3.000	4.000
32.	38	0	1.105	0.505	0.311	1.000	1.000	1.000

The dataset includes responses from 38 participants evaluating six dimensions of service quality: Tangibility, Reliability, Quality, Responsiveness, Assurance, and Empathy. Each variable was rated on a 5-point Likert scale (1 = lowest, 5 = highest).

Central Tendency and Dispersion

- Means for all variables are clustered closely, ranging from 3.684 (Responsiveness) to 3.974 (Quality), indicating an overall positive perception of service quality.
- Standard deviations are moderately low (ranging from 0.913 to 1.018), suggesting low variability in the responses and relatively consistent opinions among respondents.
- Median values are 4.000 across all variables, reinforcing the central tendency towards a favourable evaluation.

Quartile Analysis

- First quartile (Q1) values are 3.000 for all variables, indicating that at least 25% of respondents gave moderate or lower ratings.
- The third quartile (Q3) values range from 4.000 to 5.000, showing that at least 75% of responses fall within the upper levels of the scale for most variables, particularly Tangibility, Reliability, Quality, and Assurance.

Skewness and Kurtosis

- All variables show negative skewness (ranging from -0.39 to -0.88), which means the distribution of responses is slightly skewed towards higher ratings, with more responses clustered on the right side of the scale.
- Kurtosis values range from -0.02 to 0.86, suggesting approximately normal distributions. The slight positive kurtosis (particularly for Quality and Tangibility) indicates a slightly more peaked distribution, meaning that extreme values (very low or very high) are less common.

Key Observations

- Quality received the highest mean rating (3.974) and shows the most left-skewed distribution (-0.88), indicating it was rated most positively by respondents.
- Responsiveness received the lowest mean (3.684) and has the lowest Q3 value (4.000), suggesting room for improvement in this area.
- All variables have a minimum value of 1.000, indicating that a few respondents had negative experiences or perceptions in each dimension.

Correlation

The PCA was conducted to reduce the dimensionality of the data and identify the underlying structure among the six correlated service quality variables: Tangibility, Reliability, Quality, Responsiveness, Assurance, and Empathy.

1. Eigenvalues and Explained Variance

- The first principal component (PC1) alone accounts for 81.3% of the total variance, which is very high. This implies that PC1 captures the vast majority of the information contained in all six service quality variables
- The second component (PC2) adds only 6.7% to the explained variance, and further components contribute even less.

Principal Component Analysis (PCA) of Service Quality Dimensions

- Thus, the first component is dominant, and a single-factor solution may be sufficient for summarizing the data.

	Q3	Maximum	Skewness	Kurtosis
1.	2.000	2.000	-0.22	-2.06
2.	2.000	4.000	1.52	0.64
3.	2.000	4.000	1.77	2.00
4.	4.000	5.000	-0.23	-0.38
5.	5.000	5.000	-0.53	-0.22
6.	5.000	5.000	-0.61	-0.17
7.	5.000	5.000	-0.30	-0.52
8.	5.000	5.000	-0.87	1.27
9.	5.000	5.000	-0.55	-0.14
10.	5.000	5.000	-0.87	-0.10
11.	5.000	5.000	-0.63	-0.07
12.	4.250	5.000	-0.30	-0.74
13.	5.000	5.000	-0.87	0.67
14.	5.000	5.000	-0.83	0.20
15.	5.000	5.000	-1.10	0.94
16.	5.000	5.000	-0.84	0.10
17.	5.000	5.000	-0.88	0.86
18.	5.000	5.000	-0.60	0.17
19.	5.000	5.000	-0.46	-0.28
20.	4.000	5.000	-0.46	0.27
21.	5.000	5.000	-0.27	-0.06
22.	5.000	5.000	-0.51	0.19
23.	5.000	5.000	-0.87	0.67
24.	5.000	5.000	-0.61	0.2
25.	4.250	5.000	-0.69	0.91
26.	5.000	5.000	-0.36	-0.22
27.	4.250	5.000	-0.69	0.29
28.	5.000	5.000	-0.33	-0.71
29.	5.000	5.000	-0.93	1.05
30.	5.000	5.000	-0.84	0.17
31.	5.000	5.000	-0.74	1.33
32.	1.000	2.000	2.68	5.46

2. Principal Component Loadings

Interpretation of PC1

- All variables load negatively and fairly equally on PC1 (values around -0.40 to -0.42).
- This suggests that PC1 represents a general service quality factor, summarizing overall perceptions across all dimensions.
- Since all variables are strongly associated with PC1, this component likely reflects a common underlying satisfaction or service perception dimension.

Interpretation of PC2 and PC3 (Minor Components)

- PC2 shows contrasting signs:

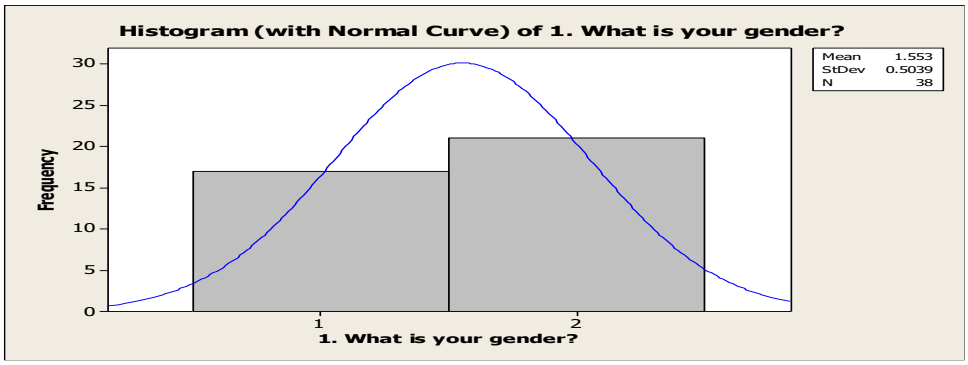
1. Positively related to Reliability, Quality, and Responsiveness
2. Negatively related to Assurance and Empathy
3. This may represent a distinction between cognitive/functional and affective/interpersonal aspects of service.

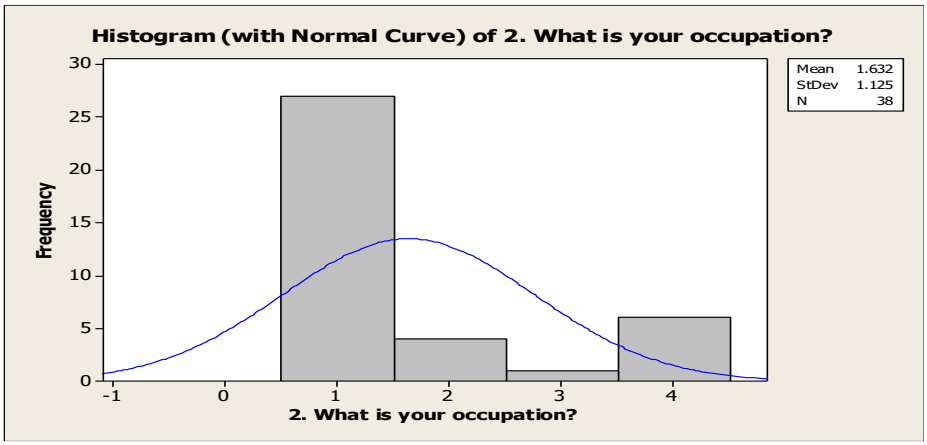
• PC3 is dominated by Tangibility (0.733) and negatively influenced by Quality (-0.503), possibly reflecting physical vs. experiential service features.

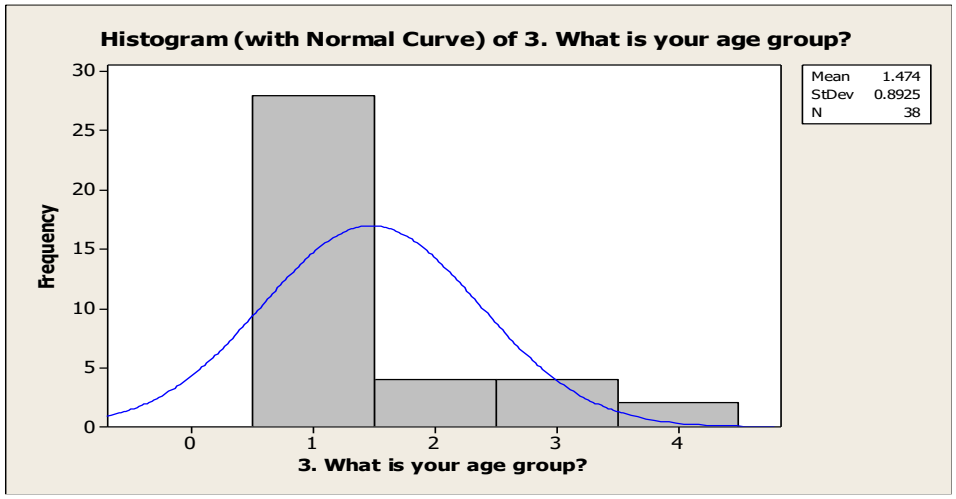
Dimensionality Reduction

• Given the high explanatory power of PC1, it may be appropriate to reduce the six dimensions into a single composite score representing overall service quality perception.

• Alternatively, PC1 and PC2 together explain nearly 88% of the variance, and could be used if a two-dimensional interpretation is desired (e.g., general satisfaction + functional vs. relational focus).



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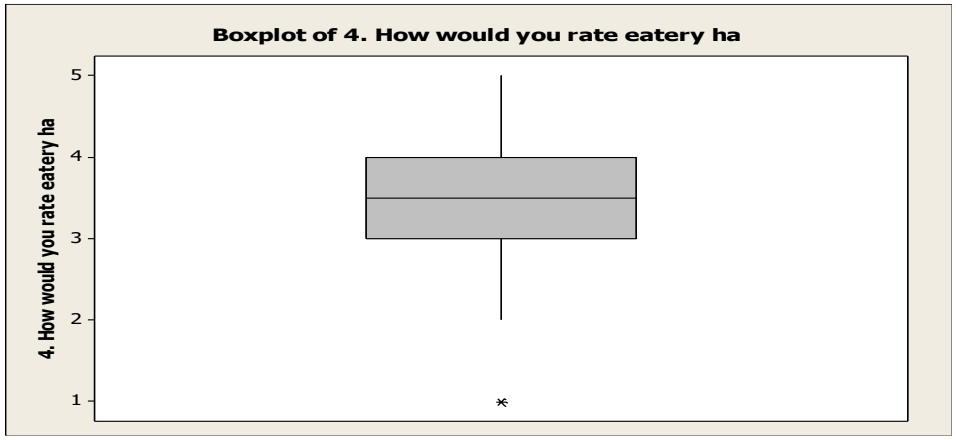
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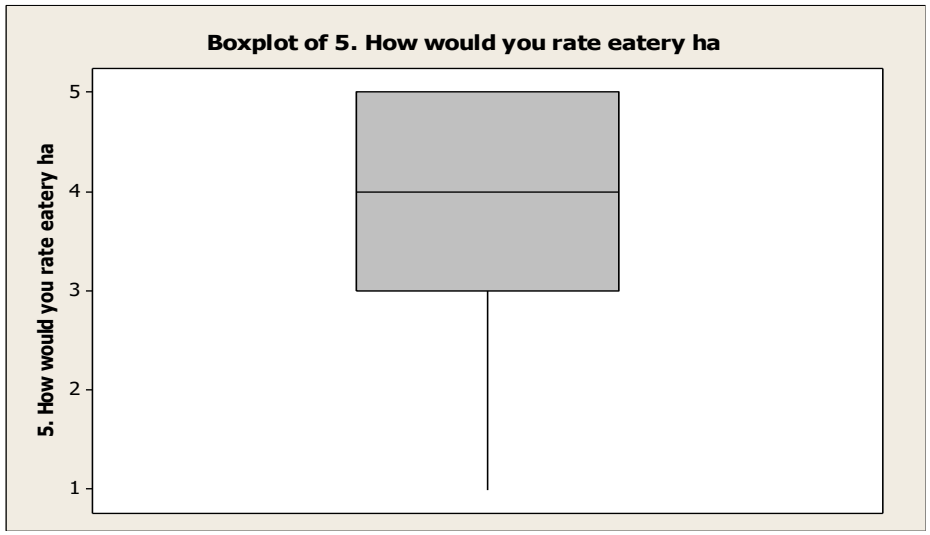
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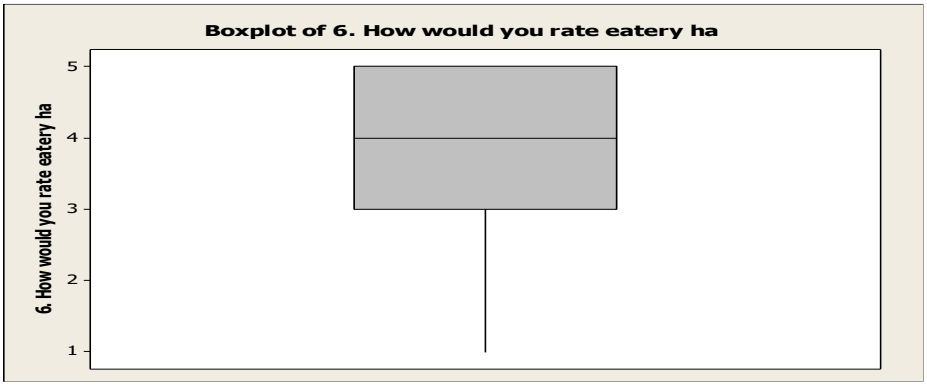
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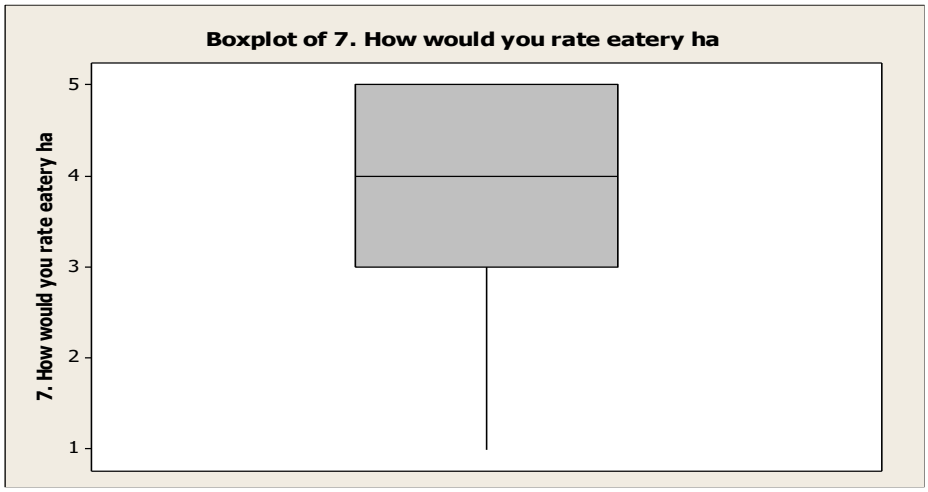
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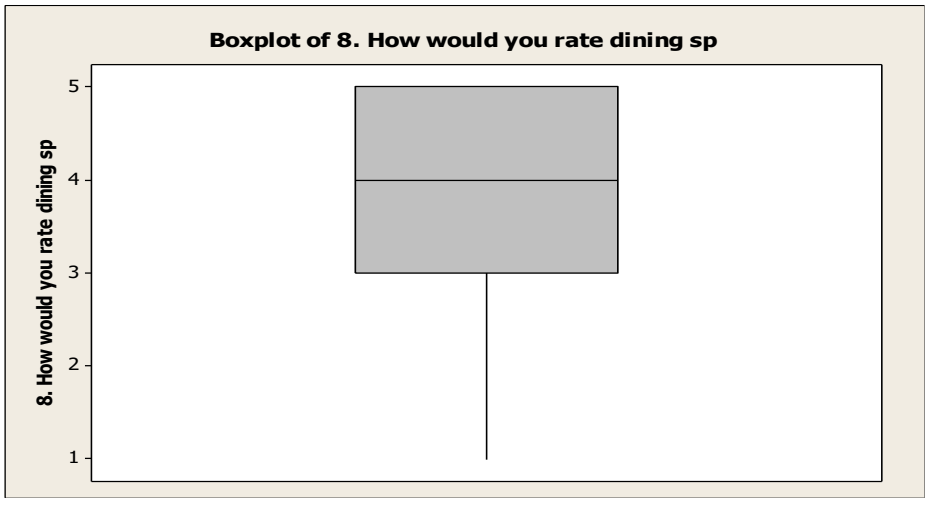
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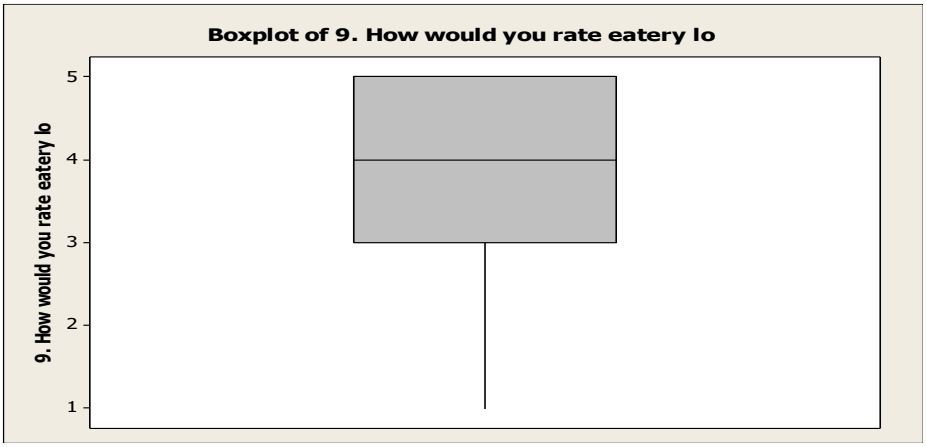
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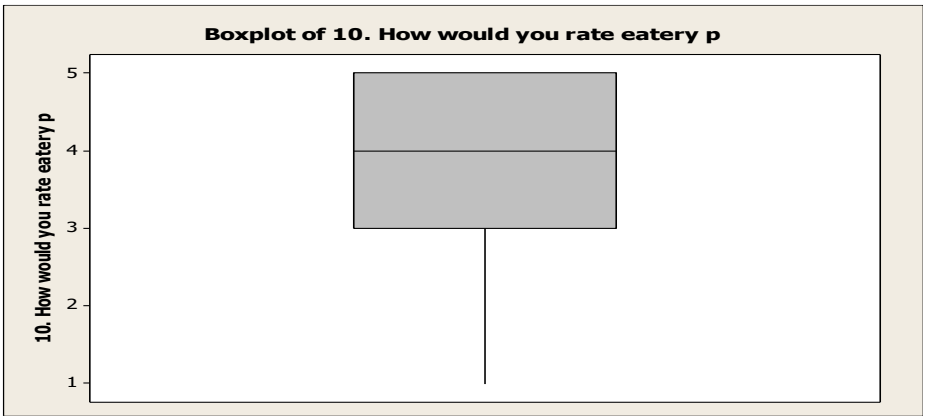
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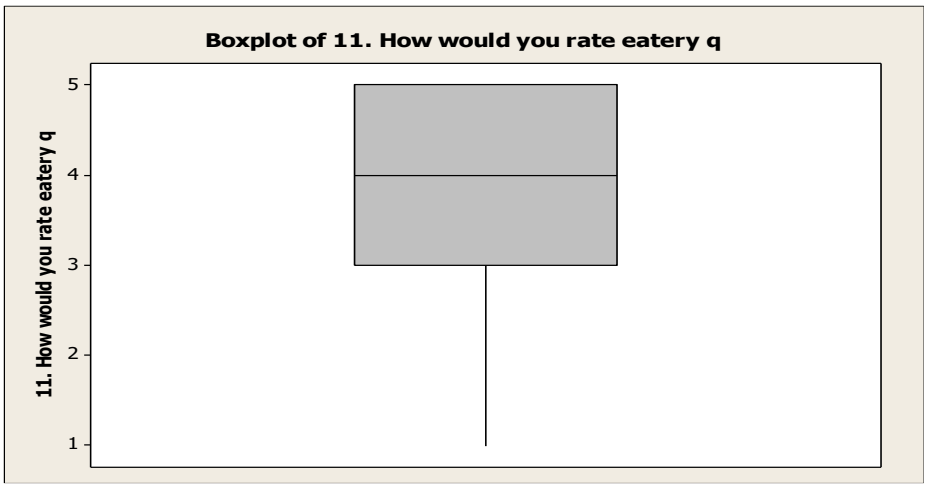
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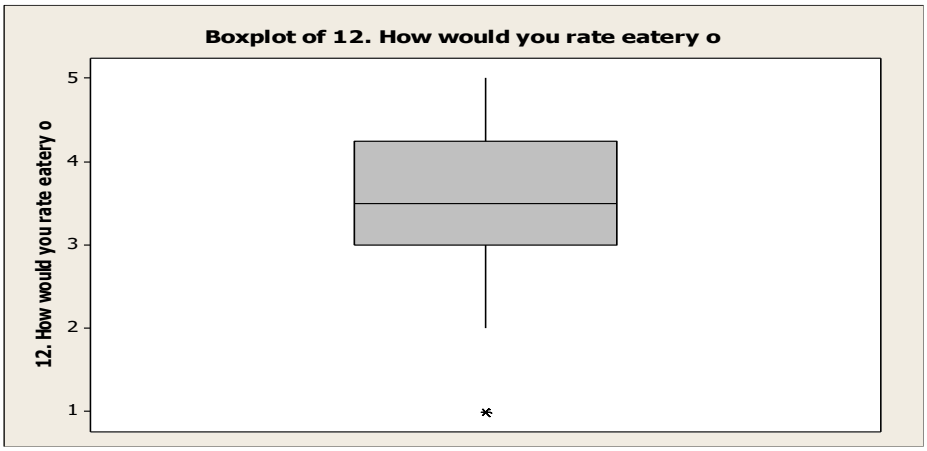
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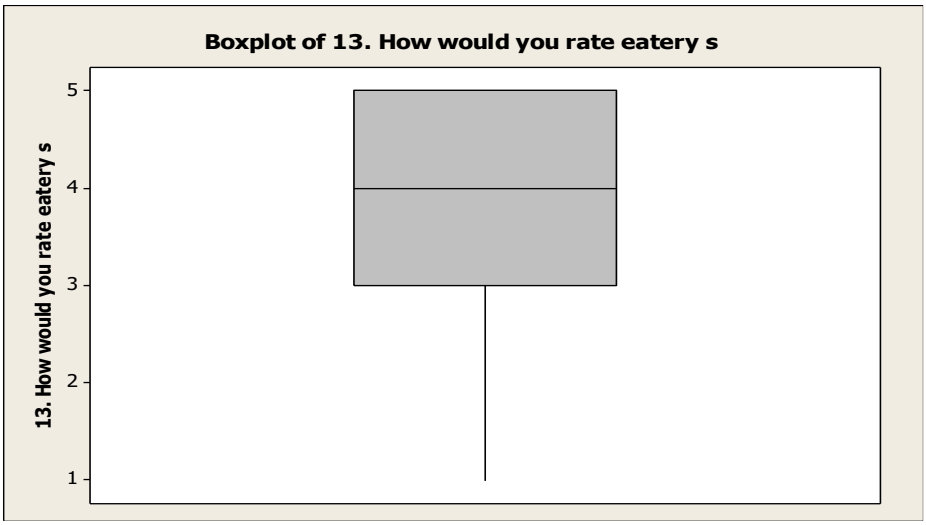
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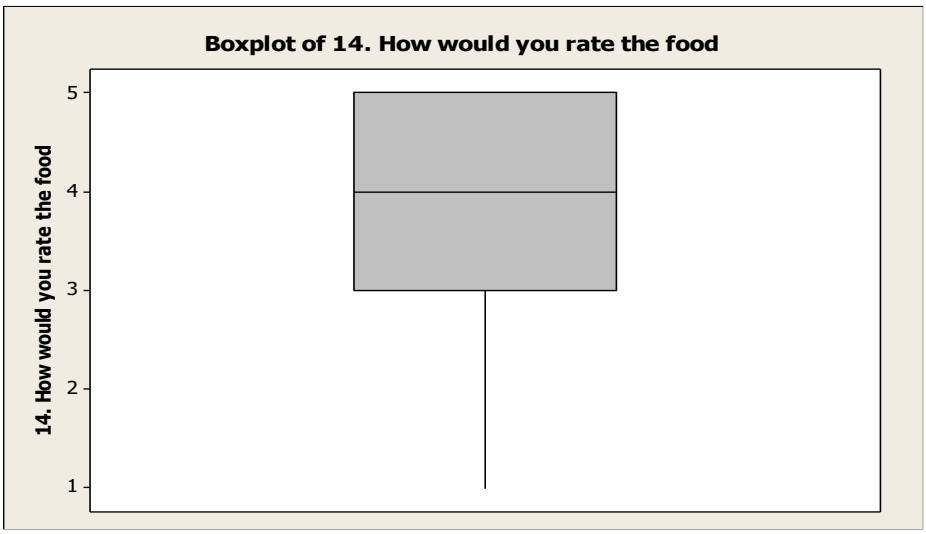
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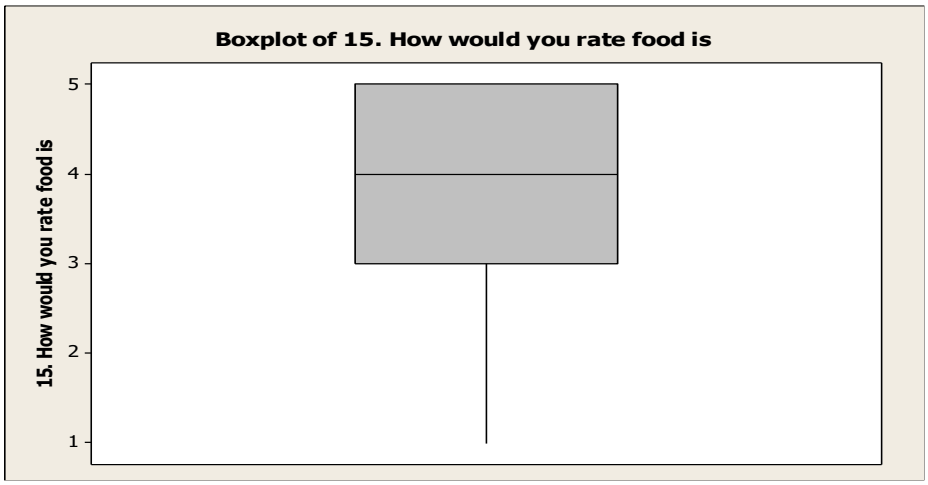
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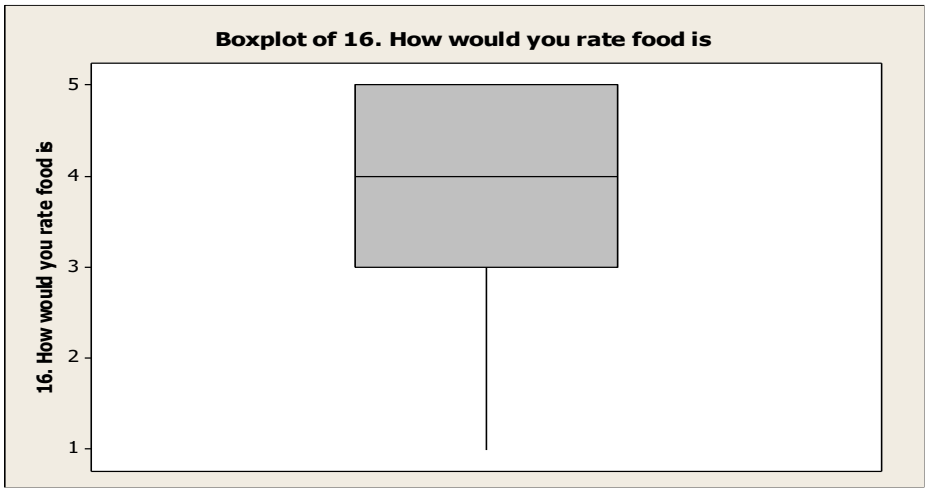
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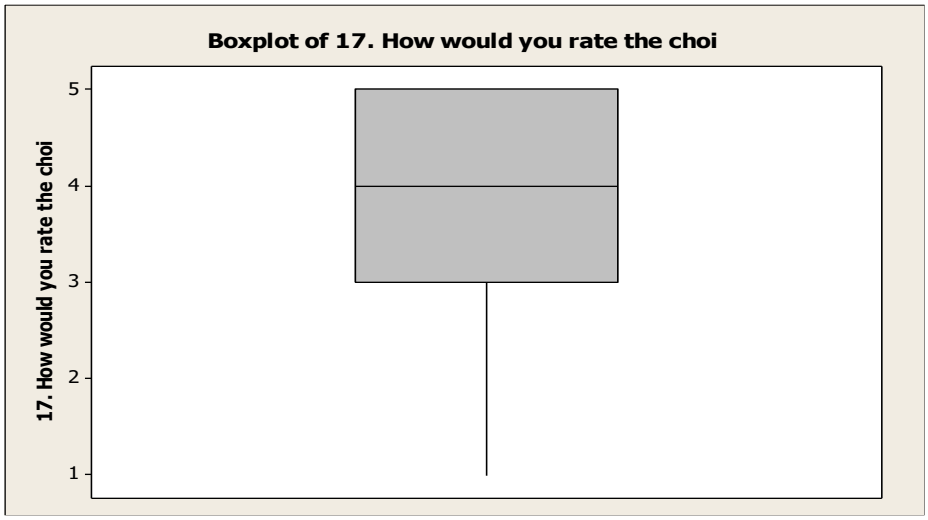
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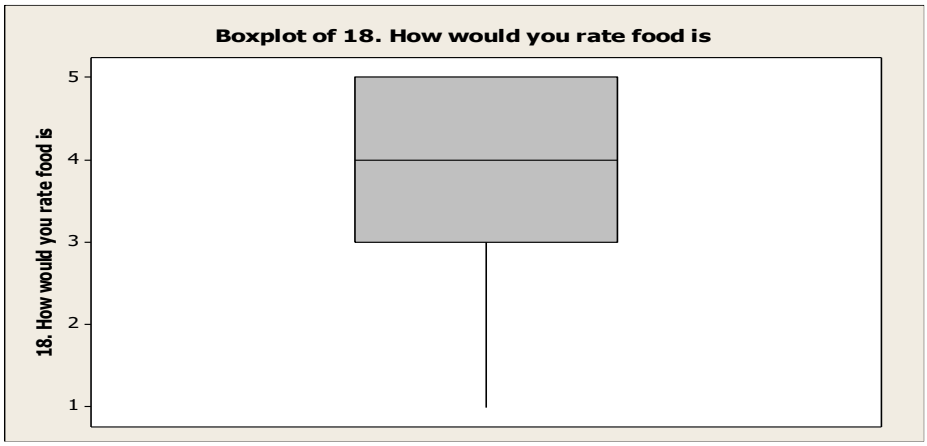
Boxplot of 18. How would you rate food is
18. How would you rate food is
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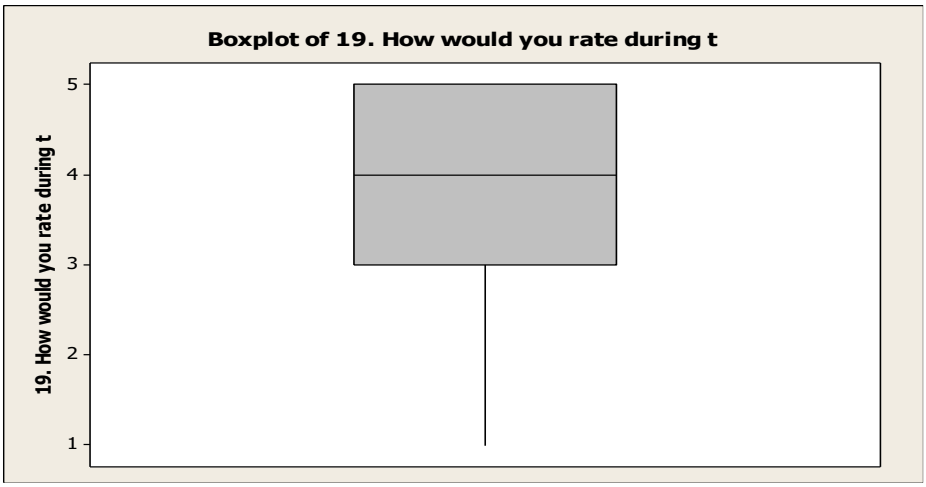
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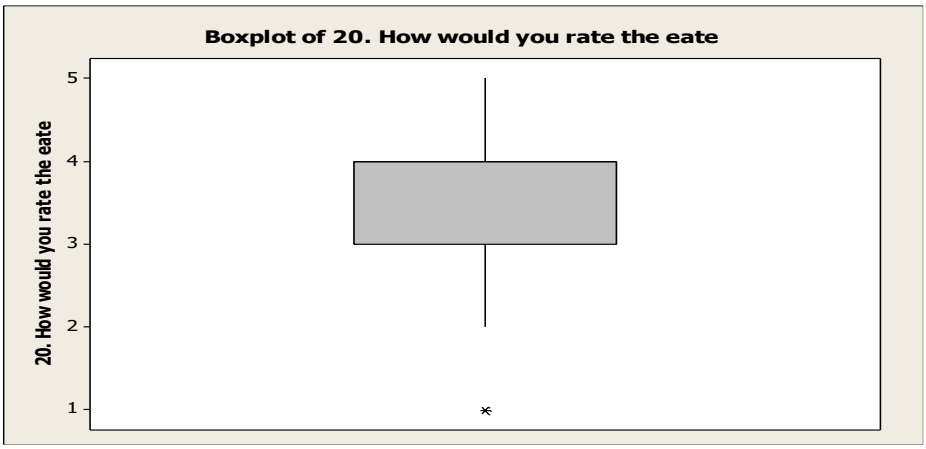
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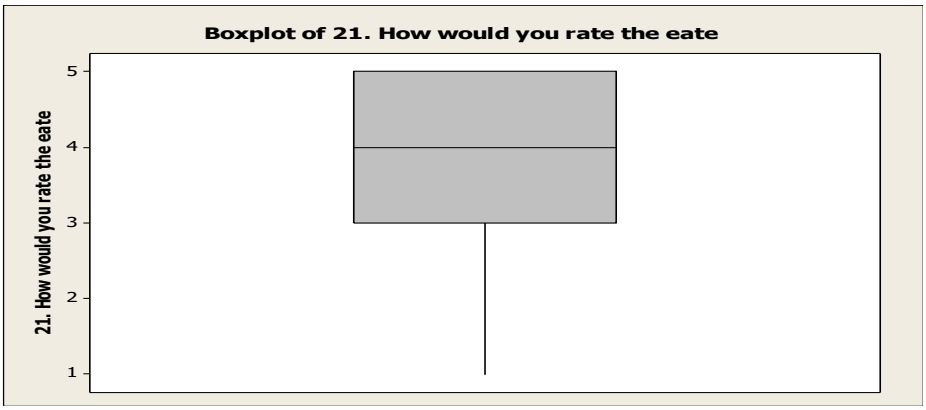
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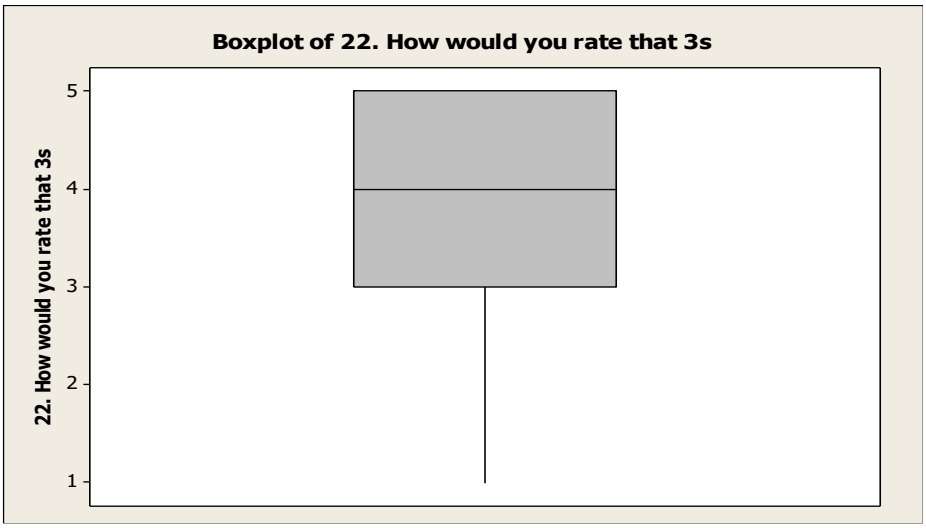
Boxplot of 22. How would you rate that 3s
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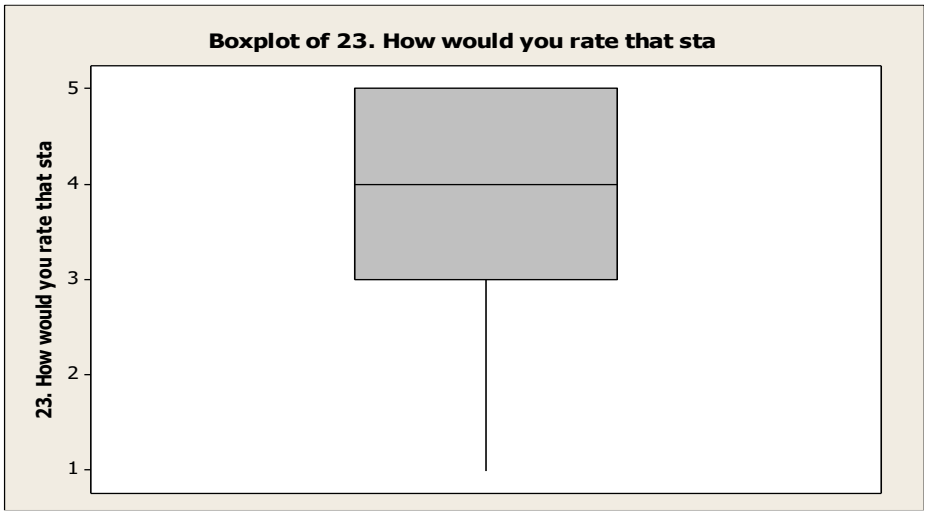
Boxplot of 23. How would you rate that sta
23. How would you rate that sta
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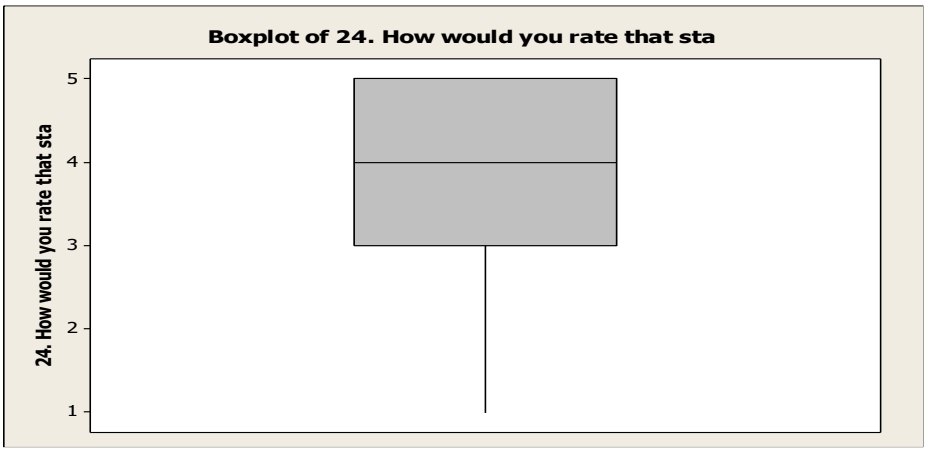
Boxplot of 24. How would you rate that sta
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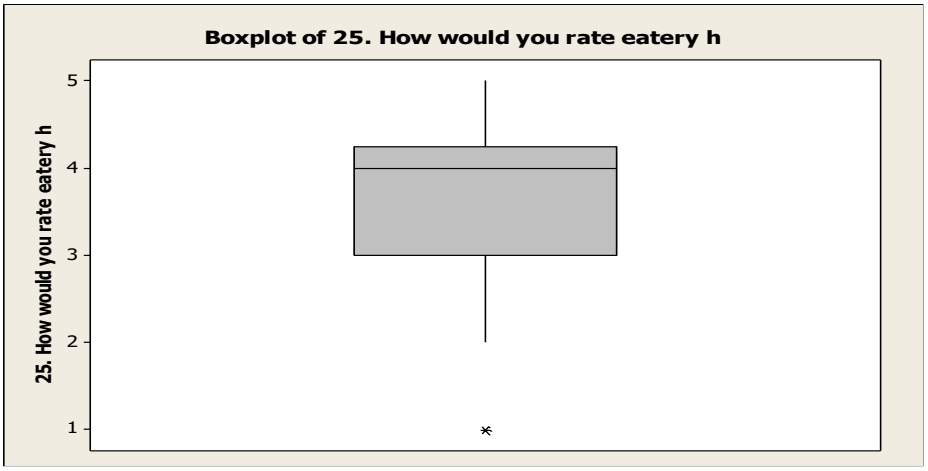
Boxplot of 25. How would you rate eatery h
25. How would you rate eatery h
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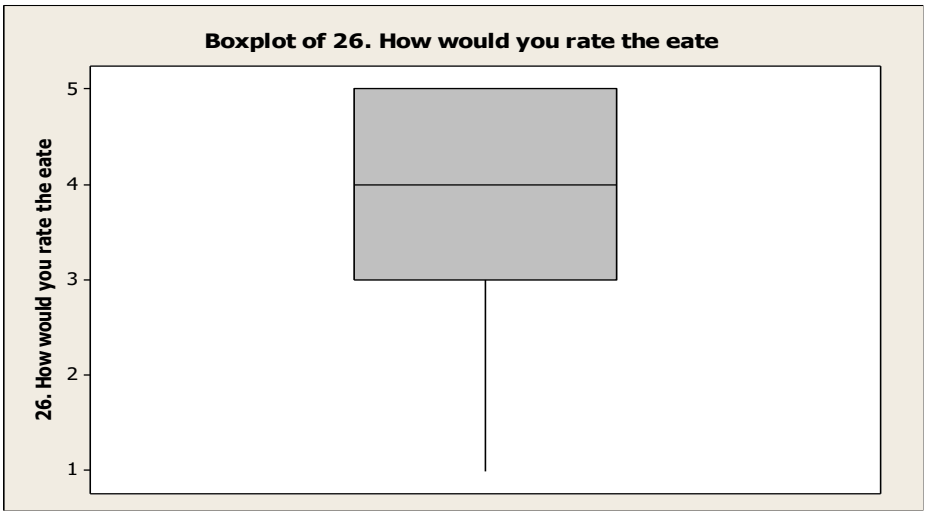
Boxplot of 26. How would you rate the eate
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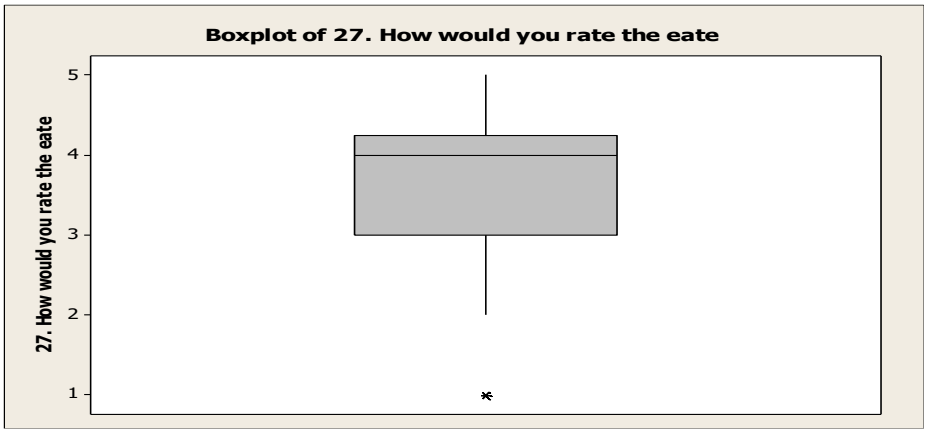
Boxplot of 27. How would you rate the eate
27. How would you rate the eate
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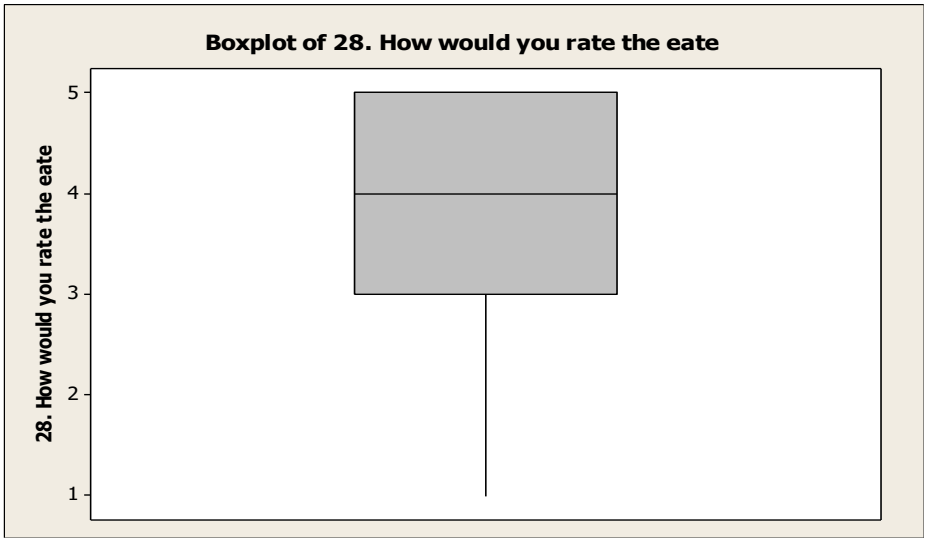
Boxplot of 28. How would you rate the eate
28. How would you rate the eate
5
4
3
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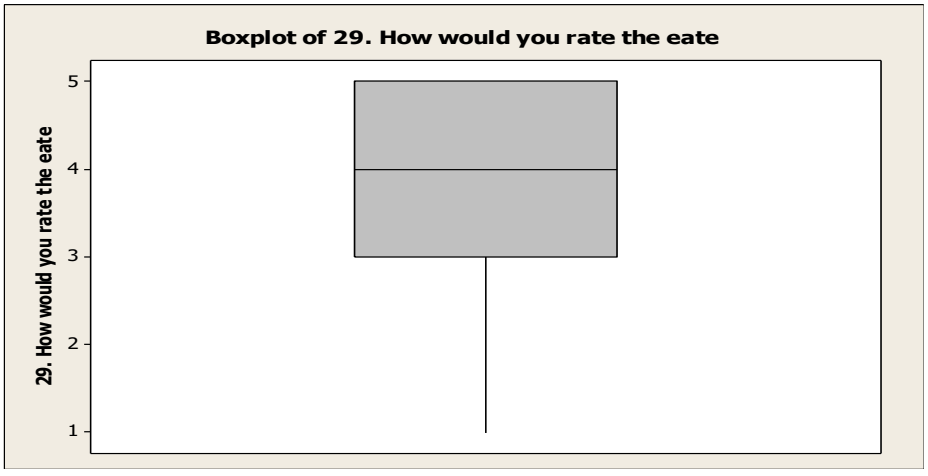
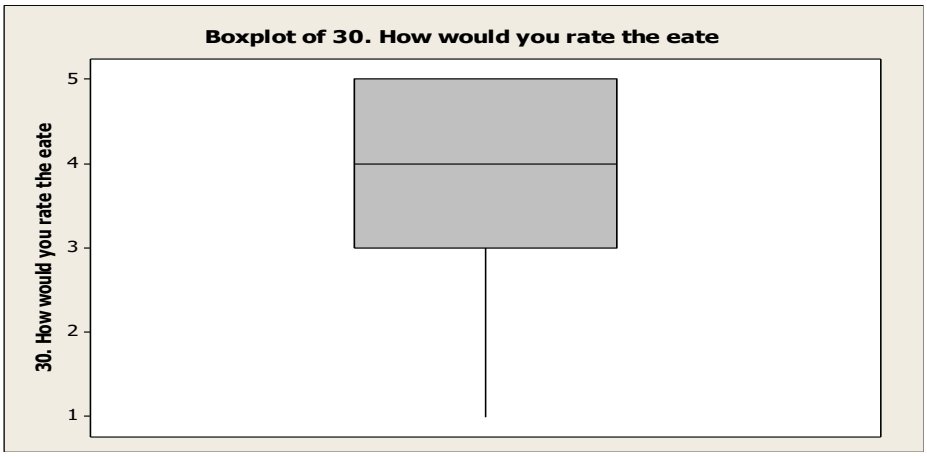
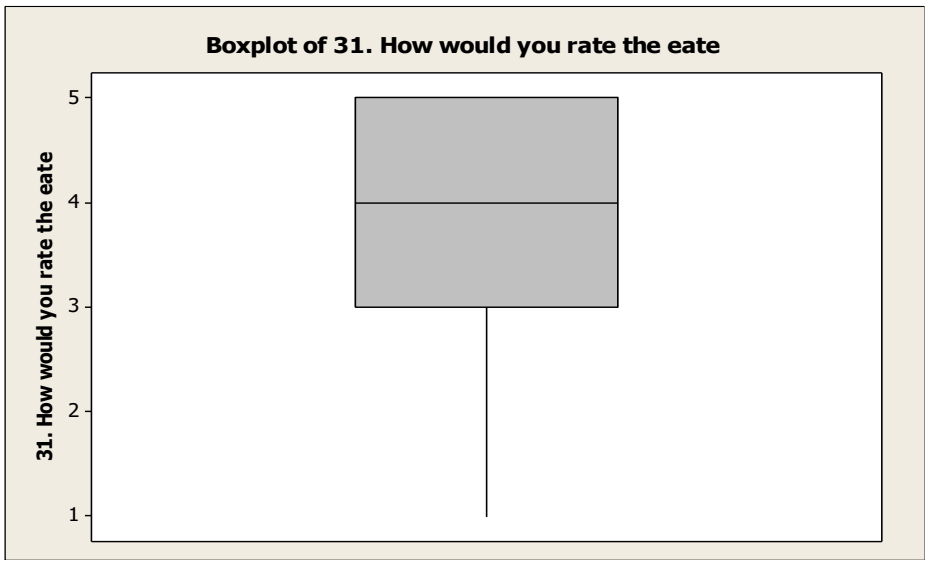
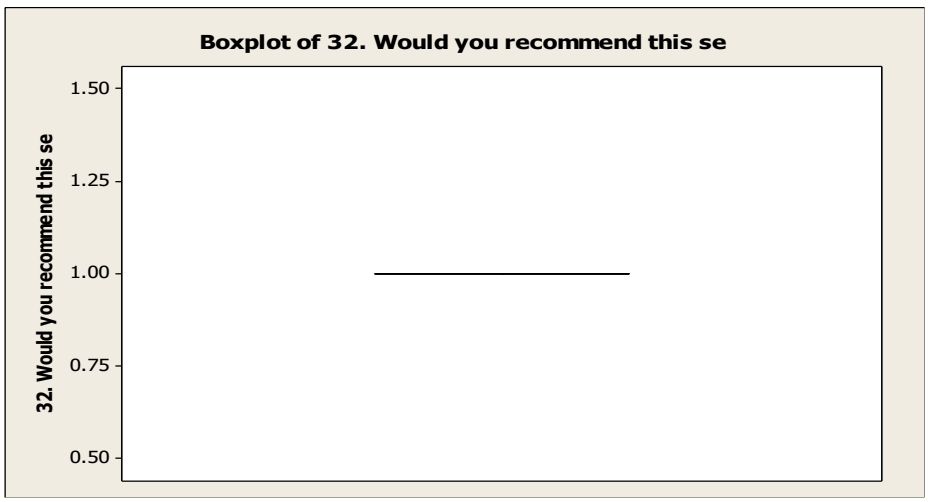

Boxplot of 29. How would you rate the eate
29. How would you rate the eate
5
4
3
2
1


Boxplot of 30. How would you rate the eate
30. How would you rate the eate
5
4
3
2
1


Boxplot of 31. How would you rate the eate
31. How would you rate the eate
5
4
3
2
1


Boxplot of 32. Would you recommend this se
32. Would you recommend this se
1.50
1.25
1.00
0.75
0.50

Regression Analysis

Test of mu = 3 vs not = 3

The assumed standard deviation = 1

1. Regression Equation

Quality=0.390+0.113×Tangibility+0.673×Reliability−0.127×Responsiveness+0.319×Assurance−0.038×Empathy\text{Quality} = 0.390 + 0.113 \times \text{Tangibility} + 0.673 \times \text{Reliability} - 0.127 \times \text{Responsiveness} + 0.319 \times \text{Assurance} - 0.038 \times \text{Empathy}Quality=0.390+0.113×Tangibility+0.673×Reliability−0.127×Responsiveness+0.319×Assurance−0.038×Empathy

This equation estimates the perceived service Quality based on the other five service quality dimensions.

2. Model Summary

- The model explains **80% of the variance** in Quality, which indicates a **strong fit**.
- The **adjusted R-squared (76.9%)** remains high, confirming that the model is effective even after adjusting for the number of predictors.

3. Coefficients & Significance

- Reliability is the only statistically significant predictor at the 0.05 level, indicating that customers' perception of reliability is the strongest driver of quality perception.
- Assurance is borderline significant (p = 0.065), suggesting a potentially meaningful effect that may warrant further study with a larger sample.

Variable	N	Mean	StDev	SE Mean	9 5% CI	Z	P
Tangibility	38	3.84211	0.91611	0.16222	(3.52416, 4.16005)	5.19	0.000
Reliability	38	3.78947	1.01763	0.16222	(3.47153, 4.10742)	4.87	0.000
Quality	38	3.97368	0.97223	0.16222	(3.65574, 4.29163)	6.00	0.000
Responsiveness	38	3.68421	0.96157	0.16222	(3.36626, 4.00216)	4.22	0.000
Assurance	38	3.78947	0.93456	0.16222	(3.47153, 4.10742)	4.87	0.000
Empathy	38	3.76316	0.91339	0.16222	(3.44521, 4.08111)	4.70	0.000

4. ANOVA (Analysis of Variance)

- The overall regression is highly significant ($p < 0.001$).
- However, the lack-of-fit test is also significant (p = 0.012), indicating that there may be non-linearity or that some important variables are missing from the model.

5. Sequential Sum of Squares (Seq SS)

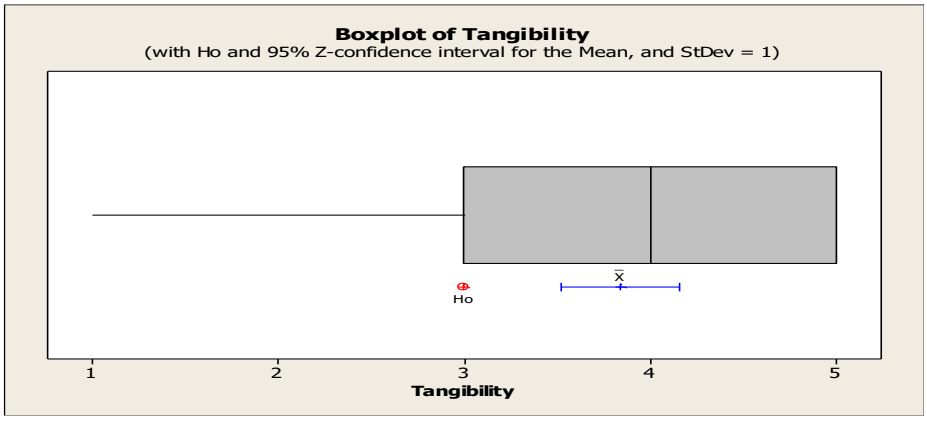
- Tangibility and Reliability explain most of the variance when entered into the model.
- Responsiveness and Empathy contribute very little, reinforcing the earlier conclusion that their influence on Quality is minimal.

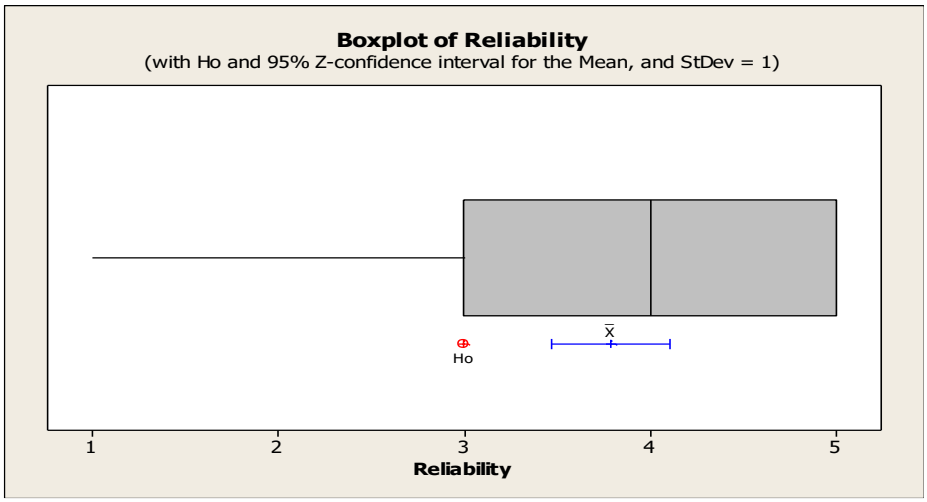
6. Unusual Observations

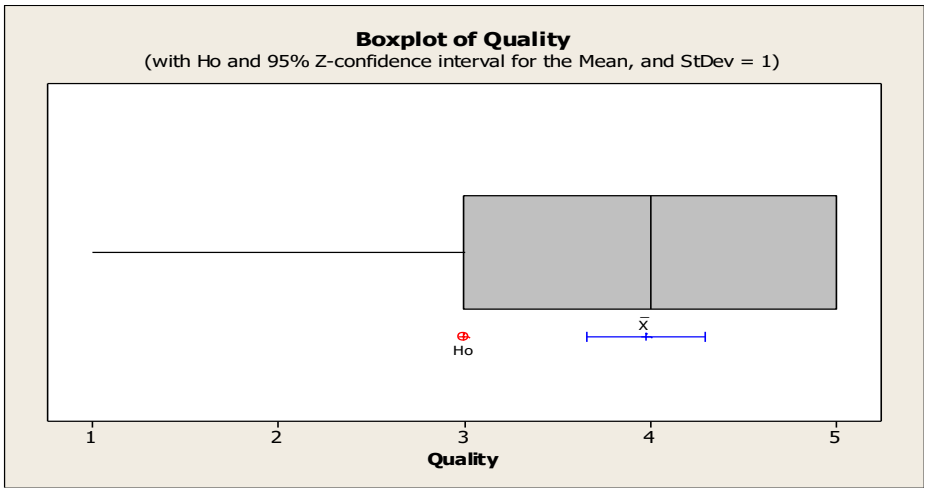
- Observations 17 and 21 are outliers in terms of prediction errors, suggesting they do not conform to the model well.
- Observation 3 is a high leverage point, meaning its predictor values (e.g., Tangibility = 5.00) may unduly influence the regression equation.

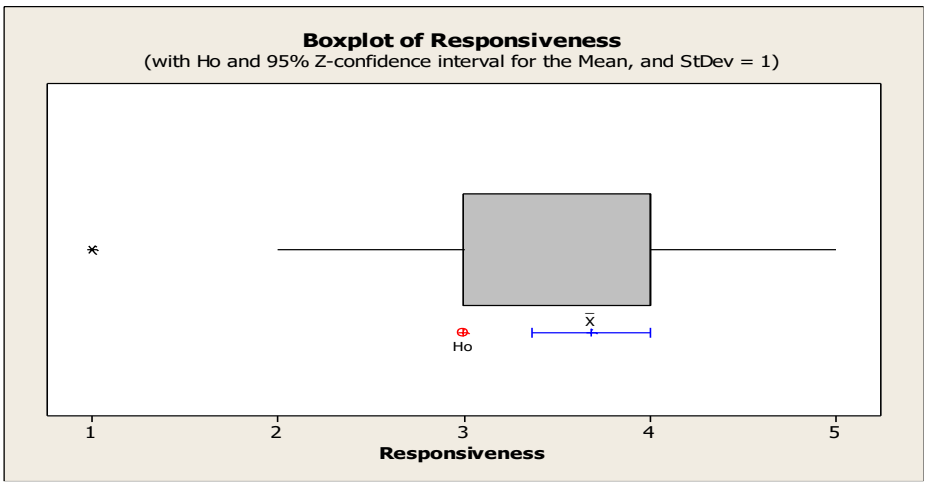
7. Durbin-Watson Statistic

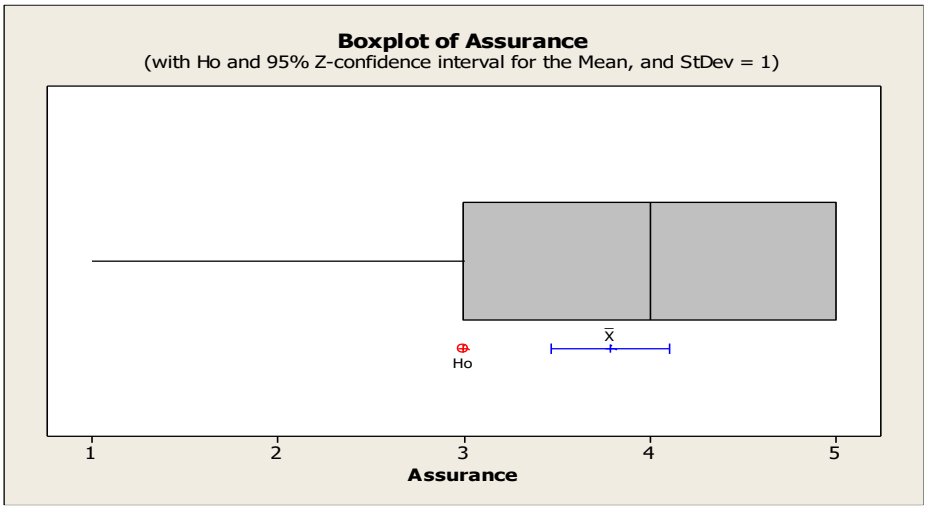
- Durbin-Watson = 1.84, which is close to 2.0, indicating that there is no significant autocorrelation in the residuals.

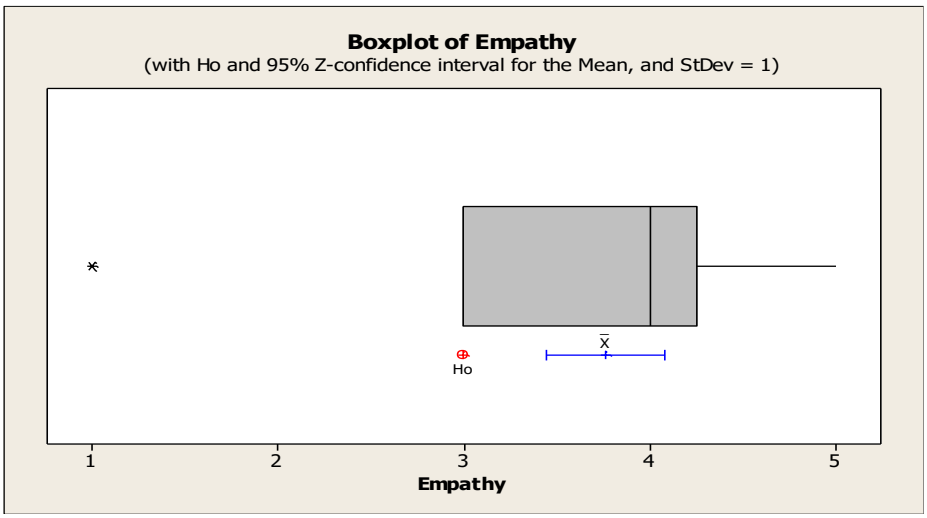

Boxplot of Tangibility
(with Ho and 95% Z-confidence interval for the Mean, and StDev = 1)
Ho
X̄
1
2
3
4
5
Tangibility


Boxplot of Reliability
(with Ho and 95% Z-confidence interval for the Mean, and StDev = 1)
Ho
X̄
1
2
3
4
5
Reliability


Boxplot of Quality
(with Ho and 95% Z-confidence interval for the Mean, and StDev = 1)
Ho
X̄
1
2
3
4
5
Quality


Boxplot of Responsiveness
(with Ho and 95% Z-confidence interval for the Mean, and StDev = 1)
Ho
X̄
1
2
3
4
5
Responsiveness


Boxplot of Assurance
(with Ho and 95% Z-confidence interval for the Mean, and StDev = 1)
Ho
X̄
1
2
3
4
5
Assurance


Boxplot of Empathy
(with Ho and 95% Z-confidence interval for the Mean, and StDev = 1)
Ho
X̄
1
2
3
4
5
Empathy

Descriptive Statistics

Variable	N	N*	Mean	SE Mean	StDev	Minimum	Q1	Median	Q3
Tangibility	38	0	3.842	0.149	0.916	1.000	3.000	4.000	5.000
Reliability	38	0	3.789	0.165	1.018	1.000	3.000	4.000	5.000
Quality	38	0	3.974	0.158	0.972	1.000	3.000	4.000	5.000
Responsiveness	38	0	3.684	0.156	0.962	1.000	3.000	4.000	4.000
Assurance	38	0	3.789	0.152	0.935	1.000	3.000	4.000	5.000
Empathy	38	0	3.763	0.148	0.913	1.000	3.000	4.000	4.250

Variable	Maximum	Skewness	Kurtosis
Tangibility	5.000	-0.56	0.79
Reliability	5.000	-0.53	-0.02
Quality	5.000	-0.88	0.86
Responsiveness	5.000	-0.46	0.27
Assurance	5.000	-0.39	0.40
Empathy	5.000	-0.40	0.60

Principal Component Analysis

Eigen analysis of the Correlation Matrix

Eigenvalue	4.8770	0.4000	0.3143	0.1912	0.1417	0.0758
Proportion	0.813	0.067	0.052	0.032	0.024	0.013
Cumulative	0.813	0.879	0.932	0.964	0.987	1.000

Variable	PC1	PC2	PC3	PC4	PC5	PC6
Tangibility	-0.400	-0.067	0.733	-0.442	0.245	-0.206
Reliability	-0.416	0.479	-0.184	0.067	-0.404	-0.629
Quality	-0.409	0.262	-0.503	-0.537	0.267	0.388
Responsiveness	-0.412	0.366	0.271	0.633	0.137	0.451
Assurance	-0.401	-0.556	-0.319	0.328	0.463	-0.326
Empathy	-0.411	-0.505	0.013	-0.059	-0.687	0.318

Regression Analysis

The regression equation is

Quality = 0.390 + 0.113 **Tangibility** + 0.673 **Reliability** - 0.127 **Responsiveness** + 0.319 **Assurance** - 0.038 **Empathy**

Predictor	Coef	SE Coef	T	P
Constant	0.3898	0.3520	1.11	0.276
Tangibility	0.1130	0.1613	0.70	0.489
Reliability	0.6729	0.1624	4.14	0.000
Responsiveness	-0.1270	0.1862	-0.68	0.500
Assurance	0.3193	0.1671	1.91	0.065
Empathy	-0.0378	0.1943	-0.19	0.847

S = 0.467020 R-Sq = 80.0% R-Sq(adj) = 76.9%

Analysis of Variance

Source	DF	SS	MS	F	P
Regression	5	27.9942	5.5988	25.67	0.000
Residual Error	32	6.9794	0.2181		
Lack of Fit	16	5.3461	0.3341	3.27	0.012
Pure Error	16	1.6333	0.1021		
Total	37	34.9737			

18 rows with no replicates

Source	DF	Seq SS
Tangibility	1	18.3059
Reliability	1	8.5190
Responsiveness	1	0.0162
Assurance	1	1.1450
Empathy	1	0.0082

Unusual Observations

Obs	Tangibility	Quality	Fit	SE Fit	Residual	St Resid
3	5.00	5.0000	4.6557	0.3307	0.3443	1.04 X
17	3.00	4.0000	2.9844	0.2589	1.0156	2.61R
21	3.00	4.0000	4.8383	0.3145	-0.8383	-2.43R

R denotes an observation with a large standardized residual.
X denotes an observation whose X value gives it large influence.
Durbin-Watson statistic = 1.83958

FINDINGS OF STUDY

- Gender respondents are of 44.7% males and 55.2% females. This shows a slightly higher female participation, which may indicate that women are more engaged in evaluating service quality or are more frequent visitors to small eateries in the studied area.
- This suggests that younger adults (particularly students) form the dominant customer base for small eateries.
- Respondents are 73.6% students, while employees and business owners each make up 10.5% and 5.2% fall under 'Others'. This may also explain expectations leaning toward affordability, speed, convenience and cleanliness as students often seek quick and budget-friendly dining options.
- All indicators under tangibility (visual appeal, cleanliness, staff appearance, menu readability, space) show negative gaps, with scores ranging from -1.04 to -1.41.
- With consistent gaps over -1.25, this dimension reveals that customers feel the service is not timely or responsive, especially during high-traffic periods.
- While these show slightly smaller gaps compared to others, issues persist with individual attention, staff competence, and communication. Customers expect more personalized interaction and knowledgeable service from the staff.
- Means for all variables are clustered closely, ranging from 3.684 (Responsiveness) to 3.974 (Quality), indicating an overall positive perception of service quality
- Standard deviations are moderately low (ranging from 0.913 to 1.018), suggesting low variability in the responses and relatively consistent opinions among respondents.
- Median values are 4.000 across all variables, reinforcing the central tendency towards a favourable evaluation.
- First quartile (Q1) values are 3.000 for all variables, indicating that at least 25% of respondents gave moderate or lower ratings.
- The third quartile (Q3) values range from 4.000 to 5.000, showing that at least 75% of responses fall within the upper levels of the scale for most variables, particularly Tangibility, Reliability, Quality, and Assurance.
- All variables show negative skewness (ranging from -0.39 to -0.88), which means the distribution of responses is slightly skewed towards higher ratings, with more responses clustered on the right side of the scale.
- Kurtosis values range from -0.02 to 0.86, suggesting approximately normal distributions. The slight positive kurtosis (particularly for Quality and Tangibility) indicates a slightly more peaked distribution, meaning that extreme values (very low or very high) are less common.
- Quality received the highest mean rating (3.974) and shows the most left-skewed distribution (-0.88), indicating it was rated most positively by respondents.

• Responsiveness received the lowest mean (3.684) and has the lowest Q3 value (4.000), suggesting room for improvement in this area.
• All variables have a minimum value of 1.000, indicating that a few respondents had negative experiences or perceptions in each dimension.
• The first principal component (PC1) alone accounts for 81.3% of the total variance, which is very high. This implies that PC1 captures the vast majority of the information contained in all six service quality variables.
• The second component (PC2) adds only 6.7% to the explained variance, and further components contribute even less.
• Thus, the first component is dominant, and a single-factor solution may be sufficient for summarizing the data.
• All variables load negatively and fairly equally on PC1 (values around -0.40 to -0.42).
• This suggests that PC1 represents a general service quality factor, summarizing overall perceptions across all dimensions.
• Since all variables are strongly associated with PC1, this component likely reflects a common underlying satisfaction or service perception dimension.
• PC2 shows contrasting signs:
1. Positively related to Reliability, Quality, and Responsiveness
2. Negatively related to Assurance and Empathy
3. This may represent a distinction between cognitive/functional and affective/interpersonal aspects of service.
• PC3 is dominated by Tangibility (0.733) and negatively influenced by Quality (-0.503), possibly reflecting physical vs. experiential service features.
• Given the high explanatory power of PC1, it may be appropriate to reduce the six dimensions into a single composite score representing overall service quality perception.
• Alternatively, PC1 and PC2 together explain nearly 88% of the variance, and could be used if a two-dimensional interpretation is desired (e.g., general satisfaction + functional vs. relational focus).
• The model explains **80% of the variance** in Quality, which indicates a **strong fit**.
• The **adjusted R-squared (76.9%)** remains high, confirming that the model is effective even after adjusting for the number of predictors.
• Reliability is the only statistically significant predictor at the 0.05 level, indicating that customers' perception of reliability is the strongest driver of quality perception.
• Assurance is borderline significant ($p = 0.065$), suggesting a potentially meaningful effect that may warrant further study with a larger sample.
• The overall regression is highly significant ($p < 0.001$).
• However, the lack-of-fit test is also significant ($p = 0.012$), indicating that there may be non-linearity or that some important variables are missing from the model.
• Tangibility and Reliability explain most of the variance when entered into the model.
• Responsiveness and Empathy contribute very little, reinforcing the earlier conclusion that their influence on Quality is minimal.
• Observations 17 and 21 are outliers in terms of prediction errors, suggesting they do not conform to the model well.
• Observation 3 is a high leverage point, meaning its predictor values (e.g., Tangibility = 5.00) may unduly influence the regression equation.
• Durbin-Watson = 1.84, which is close to 2.0, indicating that there is no significant autocorrelation in the residuals.

CONCLUSION

Hotel industry is India has a long history; the industry has transformed by many folds in the recent years. Globalization, eateries of MNC's and growing population, Migration from villages' education and job hunting have induced the growth of eateries in many metro Cities. The study clearly demonstrates the need of fulfilling the customer's expectation as customers are considered as the king of any business. Bangalore city is blessed with ample numbers of eateries which provides vide variety of quality food at reasonable prices. Customers are happy about the services quality but yet there are certain areas where the eateries can focus to improve the quality as well as satisfaction. Overall, the eateries need to bridge the gap between the expectation and perception about the services quality.

This will provide a comprehensive analysis of service quality gaps in QSRs, equipping businesses with actionable insights and strategies to enhance customer satisfaction and maintain market leadership. By integrating customer feedback, staff training, and technological advancements, the study will present a holistic approach to improving service quality in the fast-food industry.

REFERENCES

- Rhoades et al (2000) on the relationship between store image, store satisfaction and store loyalty. http://arno.unimaas.nl/show.cgi?fid=3126 Definition of "Assortment Strategy".
- Kandapally. J. et al (2001) Measuring Customer satisfaction: A guide to managing quality service.
- Farner et al (2001) Customer Satisfaction Evaluation: Methods for Measuring and Implementing Service Quality.
- Lawrence &McCullough (2001) Service Management and Marketing. A customer relationship management approach. Swedish School of Economics and Business Administration.
- Bitner (2001) Customer Satisfaction. The customer experience through the customer's eyes. London, United Kingdom, Cogent Publishing Ltd.
- Groonroos (2001) Service Quality and Customer Satisfaction at ISS Facility Service Company. Jyvaskyla University of Applied Science. Unit of Facility Man-agreement in Tourism.
- Siu& Cheung (2001). Customer Satisfaction in Retail Market. Vaasa University of Applied Science. Unit of Business Administration. Bachelor's Thesis.
- Selvakumar (2015) Evaluating energy storage technologies for wind power integration.
- Qing Qing Tan et. al. (2014) worldwide health effects of the Fukushima Daiichi nuclear accident. Energy & Environmental Science Tester.
- Tremeac, B., & Meunier, F. (2009). Life cycle analysis of 4.5 MW and 250W wind turbines.
- Tsoutsos, T., Frantzeskaki, N., & Gekas, V. (2005). Environmental impacts from the solar energy technologies. Energy Pol.

ANNEXURES

1. What is your gender?
- Male
- Female
2. What is your age group?
- 18-25 years
- 26-35 years
- 36-45 years
- 46-55 years
3. What is your occupation
- Student
- Employee
- Business Owner
- Others
4. How would you rate eatery has visually attractive parking areas and building exteriors?
- 1
- 2

- 3
- 4
- 5

5. How would you rate eatery has visually dining area?

- 1
- 2
- 3
- 4
- 5

6. How would you rate eatery has appropriate, decent and neatly dressed employees?

- 1
- 2
- 3
- 4
- 5

7. How would you rate eatery has a menu that is easily readable?

- 1
- 2
- 3
- 4
- 5

8. How would you rate dining space is spacious and comfortable?

- 1
- 2
- 3
- 4
- 5

9. How would you rate eatery looks clean and neat?

- 1
- 2
- 3
- 4
- 5

10. How would you rate eatery provides the service on time?

- 1
- 2
- 3
- 4
- 5

11. How would you rate eatery quickly corrects everything that is wrong?

- 1
- 2
- 3
- 4
- 5

12. How would you rate eatery offers an accurate calculation of the guests?
- 1
- 2
- 3
- 4
- 5

13. How would you rate eatery serves the food exactly as you have ordered it?
- 1
- 2
- 3
- 4
- 5

14. How would you rate the food has a nice taste?
- 1
- 2
- 3
- 4
- 5

15. How would you rate food is served at an appropriate temperature?
- 1
- 2
- 3
- 4
- 5

16. How would you rate food is fresh?
- 1
- 2
- 3
- 4
- 5

17. How would you rate the choice of food is different?
- 1
- 2
- 3
- 4
- 5

18. How would you rate food is served in good portions?
- 1
- 2
- 3
- 4
- 5

19. How would you rate during the busy hours, the eatery provides the service at the promised time?
- 1
- 2
- 3

- 4
- 5

20. How would you rate the eatery provides quick service?

- 1
- 2
- 3
- 4
- 5

21. How would you rate the eatery gives extra efforts to handle customer requests?

- 1
- 2
- 3
- 4
- 5

22. How would you rate that employees should always be ready to help?

- 1
- 2
- 3
- 4
- 5

23. How would you rate that staff should be loyal and honest?

- 1
- 2
- 3
- 4
- 5

24. How would you rate that staff should be polite?

- 1
- 2
- 3
- 4
- 5

25. How would you rate eatery has staff who are able to give you information about menu items, their ingredients and methods of preparation?

- 1
- 2
- 3
- 4
- 5

26. How would you rate the eatery has staff that looks educated, competent and experienced?

- 1
- 2
- 3
- 4
- 5

27. How would you rate the eatery has employees who have time for your individual wishes?

- 1

- 2
- 3
- 4
- 5

28. How would you rate the eatery makes you feel special?

- 1
- 2
- 3
- 4
- 5

29. How would you rate the eatery provides your individual needs and requirements?

- 1
- 2
- 3
- 4
- 5

30. How would you rate the eatery has employees who are sympathetic and calm when something is wrong?

- 1
- 2
- 3
- 4
- 5

31. How would you rate the eatery seems to have the customers' best interests at heart?

- 1
- 2
- 3
- 4
- 5

32. Would you recommend this service quality to others?

- Yes
- No