

# Service quality in the fast-food franchise industry in Gauteng

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## ABSTRACT

The problem presented in the study was the observation that the service quality offered by all franchises did not align with customers' expectations and experiences, which has a negative impact on the sustainability and competitiveness of fast-food franchises. The observation indicates a gap between what customers are expecting and experiencing. To address the gap, the study aimed to identify the service quality gaps in the fast-food franchise industry in South Africa's Gauteng Province along with the dimensions that need to be managed.

To gather the necessary data interpretations, a quantitative research approach was implemented in this study with a combination of exploratory and descriptive research designs. Descriptive research was conducted in the form of a structured, self-administered questionnaire. The empirical results and findings indicated that respondents often have higher service quality expectations compared to experiences; moreover, changes in any of the dimensions would have large effects in the same direction in the other dimensions. The results further indicated that the service quality of the fast-food franchises in Gauteng is low and, subsequently, their customer satisfaction is influenced negatively.

Based on the results, it is recommended that greater managerial focus should be placed on increasing the service quality reliability dimension (largest gap) and less managerial effort on the tangibles dimension (smallest gap). This study accentuates that the success of the fast-food franchise depends on the level of customer satisfaction, which can induce loyalty and maintain and increase profits that will ensure the survival and success of a fast-food franchise.

**Keywords:** Customer expectations, customer experiences, franchise, management, service quality



## 1. INTRODUCTION AND RESEARCH PROBLEM

The South African fast-food industry depicted an increase of nearly twice the amount in market shares in less than a decade, as the market shares were valued at \$2.7 billion in 2018 and will have an expected outlook of \$4.9 billion by 2026 (Allied Market Research, 2020). Given the increase in market shares and the great success of franchising in the fast-food industry, the industry is not only nationally, but also globally one of the most competitive industries, especially due to the vast customer demands for superior service quality (Shandilya *et al.*, 2018:79). Superior service quality leads to customer satisfaction, which ultimately converts into purchase repetition, while substantially inducing customer loyalty (Nuryanto & Farida, 2020:212; Rana *et al.*, 2017:1). Every fast-food franchise needs loyal customers who repeat their purchases in order to maintain and increase their profits in order to survive and be successful (Meesala & Paul, 2018:261; Rana *et al.*, 2017:1; Jehanzeb *et al.*, 2015:210).

The research problem observed indicated that the service quality offered by all franchises did not align with customers' expectations and experiences, which has a negative impact on the sustainability and competitiveness of fast-food franchises. Therefore, by the same token, if there is an absence of superior service quality, a gap between the service customers expect and experience will transpire, and then the fast-food franchise will not realise the aforementioned benefits due to the customers being unsatisfied.

The consequences of unsatisfied customers are far-reaching, as it costs an estimated three to five times more to keep an existing customer than to try to appeal to new customers (Sunaryo, 2019:119). Unsatisfied customers also have a wide array of franchise substitutes to choose from, as they possess increased bargaining power, which, in turn, increases the competitiveness among businesses in the fast-food franchise industry (BusinessTech, 2019). In order for fast-food franchises to increase industry competitiveness, service quality should be improved, as failure to sustain service quality could result in more than 65 percent of customers not returning to fast-food franchises after having a negative service quality experience (Business Queensland, 2020).

A negative service quality experience could, in turn, also lead to a negative impact on the sustainability of the fast-food franchise, as sustainability focuses on the customers, the environment along with the business' revenues in the current as well as the future generations to come (Jiang *et al.*, 2019:3939). Liu *et al.* (2020:3069) advise that fast-food franchises can be more sustainable when they attend to the requirements of service quality through the offering of sustainable quality service, which entails the offering of uninterrupted service with exceptional sustainable quality over a prolonged period of time (Hadi *et al.* 2019:2412).

This research, consequently, aims to address the identified gap between service quality expectations and experiences that affects customer satisfaction, and subsequently the sustainability and competitiveness of fast-food franchises through the measuring of the service quality offered by fast-food franchises located in South Africa's Gauteng Province. Due to time and funding restraints, this study did not include franchises across South Africa. Therefore, this study was limited to only include the Gauteng Province. The Gauteng Province was also chosen due to Gauteng's population having 46% of the total buying power compared to the other provinces, despite it being South Africa's smallest province with regard to its geographical region (Kleinhans *et al.*, 2019:5).

Various studies have been conducted on service quality, customer expectations and experiences within the context of fast-food franchises (Hanaysha, 2016; Kanyan *et al.*, 2016; Liu *et al.*, 2017; Namin, 2017; Velasco *et al.*, 2016). However, no single research study focuses on the service quality of fast-food franchises in the Gauteng Province in South Africa, which makes the research novel. The fast-food franchises listed were chosen due to their appearance in the top 15 biggest fast-food franchises in South Africa (BusinessTech, 2019).

## 2. LITERATURE REVIEW

This section provides a short literature review of customer expectations, customer experiences, customer satisfaction, as well as the SERVQUAL measuring instrument.

## 2.1 CUSTOMER EXPECTATIONS

Kamaruddin *et al.* (2017:30) assert that customers make predictions based on prior experiences, circumstances, or even on various sources of information, and in order to address customers' expectations, a thorough understanding of what customers expect is required (Ramakrishnan *et al.*, 2019:535). Unfortunately, customers' expectations continuously change (Alam *et al.*, 2016:57-58), and therefore, to avoid low levels of customer satisfaction, service quality must be measured to assure that the services offered continue to meet and exceed customers' expectations (Saleh *et al.*, 2016:46; Tsafarakis *et al.*, 2018:61). The ability to manage customer expectations is a good indication of whether the business can provide high-quality services, which can also be subject to the customers' service quality experiences (Nguyen & Nagase, 2020:5).

## 2.2 CUSTOMER EXPERIENCES

Once the customers' expectations have been determined, management can compare the expectations of customers with their experiences (Jain *et al.*, 2017:648). Customer experiences entail the customers' responses at any stage of their interactions with a business (pre-purchase, purchase, or post-purchase) (Gahler *et al.*, 2019:426). According to Namin (2017:70), positive customer experiences could result in a business' success and sustainability due to customers remaining loyal to the business and referring the business to others (Bordeaux, 2019).

It is important to note that fast-food franchises might be under the impression that their efforts are creating overall positive customer experiences, while customers might feel the opposite, thereby leading to an overall negative customer experience (Morgan, 2017). To ensure that fast-food franchises offer a positive customer experience, they need to manage customer experiences, which have become very relevant in today's business environment (Gahler *et al.*, 2019:425). Positive customer experiences are what make fast-food franchises survive and bring them success (Namin, 2017:70). According to McColl-Kennedy *et al.* (2019:9), businesses that succeed at managing customer experiences will improve not only their profits, but also customer satisfaction.

## 2.3 CUSTOMER SATISFACTION

Customer satisfaction comprises the evaluation that determines whether a customer's expectations have been met with the services experienced (Nyadzayo & Khajehzadeh, 2016:264). Customers can either experience low or high levels of customer satisfaction towards the same level of service (Alam *et al.*, 2016:57). Manner (2018:7) describes that any hold-ups or difficulties that customers experience could result in low levels of satisfaction, whereas rapid and dependable customer service could lead to high levels of customer satisfaction. According to Kasiri *et al.* (2017:92), if customer satisfaction is positive, it will translate into repeat purchases and ultimately increase the business' profitability (Rana *et al.*, 2017:1). Meesala and Paul (2018:261) advocate that the success and survival of fast-food franchises can be assured by improving customer satisfaction.

## 2.4 SERVQUAL MEASURING INSTRUMENT

The well-known SERVQUAL measurement instrument was used in this study in order to measure the service quality of the fast-food franchise industry in Gauteng. By reason of needing an instrument to address the gap between customer expectations and experiences, the SERVQUAL measuring instrument, which is globally the most utilised instrument to measure service quality in various business sectors, was deemed as the most appropriate instrument to utilise. The SERVQUAL measuring instrument measures service quality by characterising customers' expectations and experiences in terms of five dimensions, namely tangibility, reliability, responsiveness, assurance and empathy (Martini *et al.*, 2018:211; Parasuraman *et al.*, 1988:23). The SERVQUAL measuring instrument is also able to determine which dimensions are the lowest and highest, resulting in an indication of whether customers are satisfied or dissatisfied (Rana *et al.*, 2017:1).

### 3. RESEARCH QUESTIONS AND HYPOTHESES

The purpose of this research was to identify the service quality gaps in the fast-food franchise industry in South Africa's Gauteng Province by measuring the expectations and experiences of customers. To achieve this purpose, the following research questions need to be answered:

- What are the expectations and experiences of customers in the fast-food franchise industry in the Gauteng Province in South Africa.
- What service quality dimensions need to be managed for increased service quality in the fast-food franchise industry in the Gauteng Province in South Africa.

Based on the abovementioned research questions, as well as the discussion on service quality, the following hypotheses were proposed:

**H<sub>0</sub>: There is no statistically significant difference between service quality expectations and service quality experiences.**

**H<sub>1</sub>: There is a statistically significant difference between service quality expectations and service quality experiences.**

If the null hypothesis is not rejected, it indicates that there are no statistically significant differences between customers' service quality expectations and experiences, and they are satisfied with the service quality in the fast-food franchise industry in Gauteng. However, if the null hypothesis is rejected, then the direction of the difference needs to be determined to identify the service quality of fast-food franchises in Gauteng. In this regard, if customers' experiences exceed their expectations, it will result in an increase in customer satisfaction (Trișcă, 2017:213). Therefore, based on this discussion, the following hypotheses are proposed, should the null hypothesis be rejected:

**H<sub>1a</sub>: Service quality has a positive statistically significant influence on the respondents' customer satisfaction.**

**H<sub>1b</sub>: Service quality has a negative statistically significant influence on the respondents' customer satisfaction.**

### 4. RESEARCH METHODOLOGY

This study followed a quantitative research approach with a combination of exploratory and descriptive research designs in the form of a structured, self-administered questionnaire to collect the data. The population comprised of customers who purchased from specific fast-food franchises in Gauteng (i.e. Burger King, Nando's, McDonald's, Mochachos, Steers or Wimpy) during the last six months prior to the data collection. The fast-food franchises listed were chosen due to their appearance in the top 15 biggest fast-food franchises in South Africa (BusinessTech, 2019).

After the research study received ethical clearance, non-probability sampling was used to select the targeted respondents. Due to the South African lockdown that implemented social distancing measures in an attempt to control the COVID-19 pandemic (Dube, 2021:270), convenience sampling and purposeful sampling were deemed as the most suited sampling methods to be utilised for this study (Mhlanga, 2018:6). The data collected from the 315 usable responses was edited, analysed, and calculated in the Statistical Package for Social Sciences (SPSS) program.

### 5. RESULTS AND DISCUSSION

This section provides the data analysis from the usable responses.

#### 5.1 PSYCHOMETRIC PROPERTIES OF THE MEASURING INSTRUMENT

To determine the accuracy of the measuring instrument, the psychometric properties were determined in terms of the measuring instruments' reliability and validity.

### 5.1.1 Reliability

The measuring instrument's reliability was determined by utilising the Cronbach's alpha coefficient ( $\alpha$ -values). The Cronbach's alpha values ranged between 0.924 and 0.960 for service quality expectations and between 0.894 and 0.930 for service quality experiences. The overall Cronbach's alpha value for service quality expectations was 0.982 and the value for service quality experiences was 0.975. These values indicated that the SERVQUAL measuring instrument that was used to measure service quality in the fast-food franchise industry in Gauteng has high levels of internal consistency and was therefore considered reliable.

### 5.1.2 Validity

The content validity of the SERVQUAL measuring instrument used in this study has already been confirmed by several studies that were conducted within contexts other than the fast-food industry in South Africa (Ali & Raza, 2017; Al-Neyadi *et al.*, 2018; Haming *et al.*, 2019). To assess the construct validity of the measuring scales and identify the underlying relationships between the variables of SERVQUAL measuring instrument as it was utilised within the context of this study, an exploratory factor analysis was conducted on all the service quality dimensions.

Prior to the factor analysis, the suitability of the data for factor analyses (factorability) had to be assessed. In this regard, a measure of sample adequacy (MSA) for each of the five dimensions of service quality expectations and experiences was calculated with the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity.

Pertaining to service quality expectations and experiences, all the dimensions indicated that factor analyses were appropriate, with all KMO values being higher than 0.6 and all values for the Bartlett's test of sphericity being smaller than 0.05. Based on the factor analyses conducted, it can be concluded that the measuring instrument contains acceptable elements of validity, and subsequently high levels of validity exist.

## 5.2 DESCRIPTIVE STATISTICS

In the following discussion, the results are reported in terms of the mean scores ( $\bar{x}$ ) and standard deviations ( $\sigma$ ). The respondents had to indicate the importance of the items according to the five dimensions on a five-point Likert-scale. With regard to service quality expectations, the ratings were 1 'Not important' and 5 'Extremely important'. With regard to service quality experiences, the ratings were 1 "I do not experience this" and 5 "I always experience this".

**TABLE 1:  
SERVICE QUALITY EXPECTATION AND EXPERIENCES DIMENSIONS**

		SERVICE QUALITY EXPECTATIONS		SERVICE QUALITY EXPERIENCES	
	STATEMENT	$\bar{x}$	$\sigma$	$\bar{x}$	$\sigma$
Tangibles	Quality equipment (cash registers, computers, furniture, etc.).	3.45	1.328	3.36	1.071
	Visual appealing physical facilities (building, entrance, layout, etc.).	3.70	1.232	3.53	0.965
	Neatness of employees (clothing, uniforms, physical appearance, etc.).	3.98	1.268	3.60	0.970
	Visual appealing materials (menus, display boards, files, receipts, etc.).	3.73	1.226	3.57	0.967
<b>Overall tangibles</b>		<b>3.72</b>	<b>1.155</b>	<b>3.51</b>	<b>0.866</b>
Reliability	The ability of the fast-food franchise to do something by a certain time.	4.09	1.179	3.40	0.973
	The fast-food franchise's sincere interest when I have a problem.	4.09	1.224	3.18	1.140
	The ability of the fast-food franchise to perform its service right the first time.	4.20	1.154	3.47	0.918
	The ability of the fast-food franchise to deliver on its customer service promises.	4.20	1.157	3.47	0.988
	Error-free service delivery.	4.07	1.141	3.29	1.024
<b>Overall reliability</b>		<b>4.13</b>	<b>1.088</b>	<b>3.36</b>	<b>0.890</b>
Responsiveness	Information about the fast-food franchise services.	3.38	1.229	3.12	1.122
	Prompt service from the fast-food franchise employees.	4.12	1.127	3.31	1.016
	The willingness of the employees at the fast-food franchise to help me.	4.21	1.121	3.36	1.035
	The availability of employees to respond to my request.	4.16	1.133	3.36	1.045
<b>Overall responsiveness</b>		<b>3.97</b>	<b>1.041</b>	<b>3.29</b>	<b>0.930</b>
Assurance	The actions of the employees lead me to feel confident as a customer.	3.90	1.2333	3.26	1.068
	The fast-food franchise environment (comfortable, relaxed, etc.)	3.74	1.189	3.43	1.054
	Well-mannered and polite employees.	4.22	1.123	3.37	1.049
	The knowledge of the employees about the inner workings of the fast-food franchise (products and service).	3.97	1.215	3.11	1.150
<b>Overall assurance</b>		<b>3.96</b>	<b>1.075</b>	<b>3.29</b>	<b>0.957</b>
Empathy	Individual attention from the fast-food franchise as a whole.	3.67	1.191	3.04	1.088
	Convenient operating hours.	3.83	1.143	3.76	1.018
	Special attention from the employees.	3.42	1.182	3.06	1.051
	The employees have my best interest at heart.	3.94	1.146	3.13	1.114
	Employees understand my specific needs.	3.90	1.113	3.24	1.087
<b>Overall empathy</b>		<b>3.75</b>	<b>1.024</b>	<b>3.25</b>	<b>0.938</b>

$\bar{x}$  = mean,  $\sigma$  = std dev

Source: Researchers' own compilation.

From Table 1, it is evident that respondents indicated that the tangible dimension is expected and important ( $\bar{x}$  = 3.72;  $\sigma$  = 1.155). Although the respondents expect most of the items pertaining to the service quality tangibles dimension to be important (mean score of 3.5 < and  $\leq$  4.5), the respondents agreed most with the item "Neatness of employees (clothing, uniforms, physical appearance, etc.)" ( $\bar{x}$  = 3.98;  $\sigma$  = 1.268) (important expectation) and least with the item "Quality equipment (cash registers, computer, furniture, etc.)" ( $\bar{x}$  = 3.45;  $\sigma$  = 1.328) (relatively important).

Respondents indicated that the reliability dimension is expected and important ( $\bar{x}$  = 4.13;  $\sigma$  = 1.088). Although the respondents expect most of the items pertaining to the service quality reliability dimension to be important (mean score of 3.5 < and  $\leq$  4.5), the respondents agreed most with the two items "The ability of the fast-food franchise to perform its service right the first time" ( $\bar{x}$  = 4.20;  $\sigma$  = 1.154) (important expectation), and "The ability of the fast-food franchise to deliver on its customer service promises" ( $\bar{x}$  = 4.20;  $\sigma$  = 1.157) (important expectation). The respondents agreed least with the item "Error-free service delivery" ( $\bar{x}$  = 4.07;  $\sigma$  = 1.141) (important expectation).

Respondents indicated that the responsiveness dimension is expected and important ( $\bar{x} = 3.97$ ;  $\sigma = 1.041$ ). Although the respondents considered most of the items pertaining to the service quality responsiveness dimension to be important (mean scores of  $3.5 < \text{and} \leq 4.5$ ), they agreed the most with the item "The willingness of the employees at the fast-food franchise to help me" ( $\bar{x} = 4.21$ ;  $\sigma = 1.121$ ) (important expectation) and the least with the item "Information about the fast-food franchise service" ( $\bar{x} = 3.38$ ;  $\sigma = 1.229$ ) (relatively important).

Respondents indicated that the assurance dimension is expected and important ( $\bar{x} = 3.96$ ;  $\sigma = 1.075$ ). Although the respondents assessed all of the items pertaining to the service quality assurance as being important (mean scores of  $3.5 < \text{and} \leq 4.5$ ), they agreed the most with the item "Well-mannered and polite employees" ( $\bar{x} = 4.22$ ;  $\sigma = 1.123$ ) (important expectation) and the least with the item "The fast-food franchise environment (comfortable, relaxed, etc.)" ( $\bar{x} = 3.74$ ;  $\sigma = 1.189$ ) (important expectation).

Respondents indicated that the empathy dimension is expected and important ( $\bar{x} = 3.75$ ;  $\sigma = 1.024$ ). This entails that the respondents deemed most of the items pertaining to the service quality empathy dimension as important (mean scores of  $3.5 < \text{and} \leq 4.5$ ). The respondents agreed most with the item "The employees have my best interest at heart" ( $\bar{x} = 3.94$ ;  $\sigma = 1.146$ ) (important expectation) and least with the item "Special attention from the employees" ( $\bar{x} = 3.42$ ;  $\sigma = 1.182$ ) (relatively important).

Overall, the respondents considered all the dimensions of service quality expectations to be important. However, the respondents indicated that the reliability dimension is the most important service quality expectations dimension ( $\bar{x} = 4.13$ ;  $\sigma = 1.088$ ) and the tangibles dimension is the least important service quality expectations dimension ( $\bar{x} = 3.72$ ;  $\sigma = 1.155$ ).

Respondents indicated that they experienced the items pertaining to the service quality tangibles dimension most of the time ( $\bar{x} = 3.51$ ;  $\sigma = 0.866$ ). The respondents agreed most with the item "Neatness of employees (clothing, uniforms, physical appearance, etc.)" ( $\bar{x} = 3.60$ ;  $\sigma = 0.970$ ) (experience most of the time) and least with the item "Quality equipment (cash registers, computer, furniture, etc.)" ( $\bar{x} = 3.36$ ;  $\sigma = 1.071$ ) (experience sometimes).

Respondents indicated that they experienced the service quality reliability dimension sometimes ( $\bar{x} = 3.36$ ;  $\sigma = 0.890$ ). The respondents agreed most with the two items "The ability of the fast-food franchise to perform its service right the first time" ( $\bar{x} = 3.47$ ;  $\sigma = 0.918$ ) (experience sometimes) and "The ability of the fast-food franchise to deliver on its customer service promises" ( $\bar{x} = 3.47$ ;  $\sigma = 0.988$ ) (experience sometimes). The respondents agreed least with the item "The fast-food franchise's sincere interest when I have a problem" ( $\bar{x} = 3.18$ ;  $\sigma = 1.140$ ) (experience sometimes).

Respondents indicated that they experienced the service quality responsiveness dimension sometimes ( $\bar{x} = 3.29$ ;  $\sigma = 0.930$ ). The respondents agreed most with the two items "The willingness of the employees at the fast-food franchise to help me" ( $\bar{x} = 3.36$ ;  $\sigma = 1.035$ ) (experience sometimes) and "The availability of employees to respond to my request" ( $\bar{x} = 3.36$ ;  $\sigma = 1.045$ ) (experience sometimes). The respondents agreed least with the item "Information about the fast-food franchise services" ( $\bar{x} = 3.12$ ;  $\sigma = 1.122$ ) (experience sometimes).

Respondents indicated that they experienced the service quality assurance dimension sometimes ( $\bar{x} = 3.29$ ;  $\sigma = 0.957$ ). The respondents agreed most with the item "The fast-food franchise environment (comfortable, relaxed, etc.)" ( $\bar{x} = 3.43$ ;  $\sigma = 1.054$ ) (experience sometimes) and least with the item "The knowledge of the employees about the inner workings of the fast-food franchise (products and service)" ( $\bar{x} = 3.11$ ;  $\sigma = 1.150$ ) (experience sometimes).

Respondents indicated that they experienced the service quality empathy dimension sometimes ( $\bar{x} = 3.25$ ;  $\sigma = 0.938$ ). The respondents agreed the most with the item "Convenient operating hours" ( $\bar{x} = 3.76$ ;  $\sigma = 1.018$ ) (experience most of the time) and least with the item "Individual attention from the fast-food franchise as a whole" ( $\bar{x} = 3.04$ ;  $\sigma = 1.088$ ) (experience sometimes).

Overall, the respondents indicated that all the dimensions of service quality experiences were only experienced sometimes (mean scores of  $2.5 < \text{and} \leq 3.5$ ). However, the respondents indicated that they experienced the tangibles dimension most of the time ( $\bar{x} = 3.51$ ;  $\sigma = 0.866$ ) and that they experienced the empathy dimension least of the time ( $\bar{x} = 3.25$ ;  $\sigma = 0.938$ ).

### 5.3 INFERENCE STATISTICS

The reporting of the inferential statistics included a correlation analysis of the dimensions of service quality expectations and experiences, followed by t-tests to identify, and report statistically and practically significant differences between the respondents' service quality expectations and experiences.

#### 5.3.1 Correlation analysis

Only inter-factor correlations were calculated for the respondents' service quality expectations and experiences, respectively, to determine how the influences on the dimensions (factors) affect each other. In this regard, Spearman's  $\rho$  was used as a non-parametric statistical method to test the relationships between two sets of data (Walker & Maddan, 2019:203).

The correlation analysis for the dimensions of service quality expectations in Table 2 below revealed that all the dimensions have statistically significant, positive relationships ( $p < 0.005$ ). In addition, the effect sizes of all these relationships are large ( $\rho > 0.50$ ), indicating that changes in the expectations of any of the dimensions would lead to large effects in the same direction in the other dimensions. This information is important for fast-food franchises, since such interactions can have an effect on the customers' expectations of any of the other dimensions in the same direction. For instance, if customers expect high levels of reliability, they are likely to also develop high expectations of the other dimensions.

**TABLE 2:  
SPEARMAN'S RHO FOR THE DIMENSIONS OF SERVICE QUALITY EXPECTATIONS**

CORRELATIONS							
			Tangible	Reliability	Responsiveness	Assurance	Empathy
Spearman's rho	Tangible	Correlation coefficient	1.000				
		Sig. (2-tailed)					
		N	315				
	Reliability	Correlation coefficient	0.681**	1.000			
		Sig. (2-tailed)	0.000				
		N	315	315			
	Responsiveness	Correlation coefficient	0.745**	0.806**	1.000		
		Sig. (2-tailed)	0.000	0.000			
		N	315	315	315		
	Assurance	Correlation coefficient	0.767**	0.756**	0.855**	1.000	
		Sig. (2-tailed)	0.000	0.000	0.000		
		N	315	315	315	315	
	Empathy	Correlation coefficient	0.672**	0.745**	0.825**	0.843**	1.000
		Sig. (2-tailed)	0.000	0.000	0.000	0.000	
		N	315	315	315	315	315

\*\*Correlation is significant on a 1% level (2-tailed),  
\*Correlation is significant on a 5% level (2-tailed),  
when  $r = 0.10$  (small effect),  $r = 0.30$  (medium effect) and  $r = 0.50$  (large effect).

Source: Researchers' own compilation



**TABLE 3:  
SPEARMAN'S RHO FOR THE DIMENSIONS OF SERVICE QUALITY EXPERIENCES**

CORRELATIONS							
			Tangible	Reliability	Responsiveness	Assurance	Empathy
Spearman's rho	Tangible	Correlation coefficient	1.000				
		Sig. (2-tailed)					
		N	315				
	Reliability	Correlation coefficient	0.711**	1.000			
		Sig. (2-tailed)	0.000				
		N	315	315			
	Responsiveness	Correlation coefficient	0.672**	0.880**	1.000		
		Sig. (2-tailed)	0.000	0.000			
		N	315	315	315		
	Assurance	Correlation coefficient	0.700**	0.847**	0.901**	1.000	
		Sig. (2-tailed)	0.000	0.000	0.000		
		N	315	315	315	315	
	Empathy	Correlation coefficient	0.649**	0.803**	0.855**	0.898**	1.000
		Sig. (2-tailed)	0.000	0.000	0.000	0.000	
		N	315	315	315	315	315

\*\*Correlation is significant on a 1% level (2-tailed),  
\*Correlation is significant on a 5% level (2-tailed),  
when  $r = 0.10$  (small effect),  $r = 0.30$  (medium effect) and  $r = 0.50$  (large effect).

Source: Researchers' own compilation

Table 3 summarises that all the dimensions have statistically significant, positive relationships ( $p < 0.005$ ). The effect sizes of all these relationships are large ( $\rho > 0.50$ ), indicating that changes in the experiences of any of the dimensions would have large effects in the same direction in the other dimensions. Subsequently, this information is important for fast-food franchises, since they need to realise that when their customers experience the dimensions of service quality in a specific manner (high or low levels of service quality), it will have a large effect on the other dimensions in the same direction. For instance, if customers experience low levels of reliability, this experience will have a large effect on their experiences of the other dimensions in the same direction.

### 5.3.2 T-tests

A paired sample t-test was conducted to test for correlations between service quality expectations and service quality experiences to evaluate the differences between the respondents' service quality expectations and experiences in the fast-food franchise industry in Gauteng.

**TABLE 4:  
PAIRED SAMPLE T-TEST FOR OVERALL EXPECTATIONS AND EXPERIENCE**

PAIRED SAMPLES TEST									
		Paired differences					t	df	Sig. (2-tailed)
		Mean	Std. dev	Std. error mean	95% confidence interval of the difference				
					Lower	Upper			
Pair 1	EXPECTATIONS OVERALL – EXPERIENCE OVERALL	12.54	20.53	1.16	10.27	14.82	10.85	314	0.000

Source: Researchers’ own compilation

The results in Table 4 reveal that a statistically significant difference exists between the respondents’ service quality expectations and experiences ( $p = 0.000$ ). Therefore,  $H_0$  is rejected and  $H_{1a}$  and  $H_{1b}$  need to be tested. In this regard, further investigation revealed a positive difference ( $t > 0$ ), which indicates that the respondents have higher expectations of service quality than what they experience. This difference is also confirmed by  $t = 10.85$ , which resonates outside the critical value range ( $-1.960$  and  $+1.960$ ) when  $df = 314$ . In addition,  $p \approx 0.000$  (sig. 2 tailed) confirms the positive statistically significant difference between the service quality expectations and service quality experiences of the respondents.

**TABLE 5:  
PAIRED SAMPLE EFFECT SIZES**

		Cohen’s d	Standardiser <sup>a</sup>	Point estimate	95% confidence interval	
					Lower	Upper
Pair 1	EXPECTATIONS OVERALL – EXPERIENCE OVERALL		20.52590	0.611	0.490	0.731

<sup>a</sup>. The denominator used in estimating the effect sizes.  
Cohen’s d uses the sample standard deviation of the mean difference.  
Hedges’ correction uses the sample standard deviation of the mean difference, plus a correction factor.

Source: Researchers’ own compilation

The summary of the paired-sample effect sizes in Table 5 reveals a medium practically significant effect ( $d = 0.611$ ). These results led the researchers to conclude that the respondents believed the service quality of fast-food franchises in Gauteng to be lower than their expectations. Subsequently, it can be concluded that, according to the respondents, the service quality of fast-food franchises in Gauteng is low and, therefore, their customer satisfaction is influenced negatively. These results confirm the need for fast-food franchises to focus on managing the service quality dimensions that have an impact on customer satisfaction.

In the previous section, a paired sample t-test revealed that a statistically significant difference exists between the respondents’ service quality expectations and experiences ( $p = 0.000$ ), and this difference has a large practically significant effect ( $d = 0.611$ ). The next logical step in the data analysis was to compare the respondents’ expectations and experiences of the dimensions of service quality (tangibility, reliability, responsiveness, assurance, and empathy) and to determine the width and direction (positive or negative) of the gaps between the respondents’ expectations and experiences in each dimension. If the respondents’ experiences surpass their expectations (experiences  $>$  expectations), it is viewed as a positive difference and no managerial interventions are needed to enhance these dimensions of service quality. However, if the respondents’ expectations surpass their experiences (expectations

> experiences), it is viewed as a negative difference and managerial interventions are needed to enhance these dimensions of service quality. To compare the respondents' expectations and experiences of the dimensions of service quality, the following statistically developed hypotheses were tested, as depicted in Table 6.

**TABLE 6:  
STATISTICAL HYPOTHESES FOR THE DIMENSIONS OF SERVICE QUALITY**

Tangibles	
• $H_{1t}$ :	A positive statistically significant difference exists between the experiences and expectations of tangibles (TANEXPER > TANEXPEC).
• $H_{2t}$ :	A negative statistically significant difference exists between the experiences and expectations of tangibles (TANEXPER < TANEXPEC).
Reliability	
• $H_{1r}$ :	A positive statistically significant difference exists between the experiences and expectations of reliability (RELEXPER > RELEXPEC).
• $H_{2r}$ :	A negative statistically significant difference exists between the experiences and expectations of reliability (RELEXPER < RELEXPEC).
Responsiveness	
• $H_{1rs}$ :	A positive statistically significant difference exists between the experiences and expectations of responsiveness (RESEXPER > RESEXPEC).
• $H_{2rs}$ :	A negative statistically significant difference exists between the experiences and expectations of responsiveness (RESEXPER < RESEXPEC).
Assurance	
• $H_{1a}$ :	A positive statistically significant difference exists between the experiences and expectations of assurance (ASSEXPER > ASSEXPEC).
• $H_{2a}$ :	A negative statistically significant difference exists between the experiences and expectations of assurance (ASSEXPER < ASSEXPEC).
Empathy	
• $H_{1e}$ :	A positive statistically significant difference exists between the experiences and expectations of empathy (EMPEXPER > EMPEXPEC).
• $H_{2e}$ :	A negative statistically significant difference exists between the experiences and expectations of empathy (EMPEXPER < EMPEXPEC).

Source: Researchers' own compilation

In Table 7 below, a summary of the results from the paired sample t-tests for the dimensions of service quality is provided.

**TABLE 7:  
PAIRED SAMPLE T-TEST FOR THE DIMENSIONS OF SERVICE QUALITY**

PAIRED SAMPLES TEST									
	Paired Differences					t	Df	Sig. (2-tailed)	Cohen's d
	Mean	Std. deviation	Std. error mean	95% confidence interval of the difference					
				Lower	Upper				
TANEXPECT–TANEXPER	0.80952	3.93278	0.22159	0.37354	1.24551	3.653	314	0.000	0.206
RELEXPECT–RELEXPER	3.82857	5.26578	0.29669	3.24481	4.41233	12.904	314	0.000	0.727
RESEXPECT–RESEXPER	2.71746	4.17906	0.23546	2.25418	3.18075	11.541	314	0.000	0.650
ASSEXPECT–ASSEXPER	2.65714	4.36801	0.24611	2.17291	3.14138	10.797	314	0.000	0.608
EMPEXPECT–EMPEXPER	-1.37460	4.77513	0.26905	-1.90397	-0.84524	-5.109	314	0.000	0.288

Source: Researchers' own compilation

Based on the above mentioned, it is revealed that statistically significant differences exist between the expectations and experiences of the tangibles dimension ( $t = 3.653$ ;  $p < 0.05$ ), the reliability dimension ( $t = 12.904$ ;  $p < 0.05$ ), the responsiveness dimension ( $t = 11.541$ ;  $p < 0.05$ ) and the assurance dimension ( $t = 10.797$ ;  $p < 0.05$ ). The summary also reveals that a statistically significant difference exists between the experiences and expectations of the empathy dimension ( $t = -5.109$ ;  $p < 0.05$ ).

In addition, Cohen's  $d$  for effect sizes revealed that the reliability dimension ( $d = 0.727$ ), the responsiveness dimension ( $d = 0.650$ ) and the assurance dimension ( $d = 0.608$ ) have medium to large effects in practice, with the empathy dimension ( $d = 0.288$ ) and the tangibles dimension ( $d = 0.206$ ) having small effects in practice. Furthermore, from the aforementioned effect sizes of the dimensions, it is evident that the reliability dimension has the widest gap ( $d = 0.727$ ;  $\bar{x} = 3.82857$ ), with the responsiveness dimension having the second largest gap ( $d = 0.650$ ;  $\bar{x} = 2.71746$ ), the assurance dimension has the third largest gap ( $d = 0.608$ ;  $\bar{x} = 2.65714$ ) and the tangibles dimension has the smallest gap ( $d = 0.206$ ;  $\bar{x} = 0.80952$ ). Based on the results from the paired sample t-tests, calculated for the dimensions of service quality, the following conclusions can be made, in Table 8, in terms of the statistically developed hypotheses.

**TABLE 8:  
CONCLUSIONS OF STATISTICALLY DEVELOPED HYPOTHESES**

<b>Tangibles</b>	
• $H_{1t}$ : A positive statistically significant difference exists between the experiences and expectations of tangibles (TANEXPER > TANEXPEC).	Rejected
• $H_{2t}$ : A negative statistically significant difference exists between the experiences and expectations of tangibles (TANEXPER < TANEXPEC).	Retained
<b>Reliability</b>	
• $H_{1r}$ : A positive statistically significant difference exists between the experiences and expectations of reliability (RELEXPER > RELEXPEC).	Rejected
• $H_{2r}$ : A negative statistically significant difference exists between the experiences and expectations of reliability (RELEXPER < RELEXPEC).	Retained
<b>Responsiveness</b>	
• $H_{1rs}$ : A positive statistically significant difference exists between the experiences and expectations of responsiveness (RESEXPER > RESEXPEC).	Rejected
• $H_{2rs}$ : A negative statistically significant difference exists between the experiences and expectations of responsiveness (RESEXPER < RESEXPEC).	Retained
<b>Assurance</b>	
• $H_{1a}$ : A positive statistically significant difference exists between the experiences and expectations of assurance (ASSEXPER > ASSEXPEC).	Rejected
• $H_{2a}$ : A negative statistically significant difference exists between the experiences and expectations of assurance (ASSEXPER < ASSEXPEC).	Retained
<b>Empathy</b>	
• $H_{1e}$ : A positive statistically significant difference exists between the experiences and expectations of empathy (EMPEXPER > EMPEXPEC).	Retained
• $H_{2e}$ : A negative statistically significant difference exists between the experiences and expectations of empathy (EMPEXPER < EMPEXPEC).	Rejected

Source: Researchers' own compilation

## 6. MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

The insights obtained from this study can potentially assist managers from the fast-food franchise industry in how to manage and improve service quality within their fast-food franchises. This study offers the following recommendations:

- With regard to the reliability dimension, which was the most important service quality expectations dimension, managers need to ensure that products and services are provided by the promised time, employees are sympathetic and reassuring when customers have problems, businesses need to be dependable, and accurate records must be kept of their business ventures.
- With regard to the tangible dimension, which was experienced most of the time although respondents indicated that tangibles were the least important service quality dimension, managers can continue to keep their equipment up to date, facilities visually appealing, employees appearing well-dressed and the appearance of physical facilities in keeping with the type of service provided.
- With regard to the empathy dimension, which respondents indicated that they experience the least of the time when compared to the other dimensions, managers will have to know that customers are attuned to the individual and personal attention they receive, the recognition of their interests, and an understanding of their needs by employees in the fast-food franchise industry.
- With regard to the service quality expectations and experiences dimensions, the correlation analysis and effect sizes revealed that changes in the expectations or experiences of any of the dimensions would lead to large effects in the same direction in the other dimensions, and therefore managers need to realise that when focusing on managing elements of one dimension, it would have a large effect on the customers' expectations and experiences of the other dimensions in the same direction.
- Fast-food franchises in Gauteng need to manage tangibles, reliability, responsiveness, and assurance to enhance their service quality. As respondents' experiences of empathy surpass their expectations, this dimension is the only dimension that contributes to improved service quality.
- Since it was revealed that respondents have higher expectations of service quality than what they experience, and that the service quality of fast-food franchises in Gauteng is low, customer satisfaction in this province is subsequently influenced negatively. In order to improve service quality, more managerial focus should be directed at increasing the service quality of the reliability dimension (largest gap) and the managerial effort should be least directed to the tangibles dimension (smallest gap).
- In order to attain more comprehensive findings, future research studies could include more provinces, or South Africa as a whole.

## 7. CONCLUSION

This study's purpose was achieved by addressing the service quality gaps in the fast-food franchise industry in South Africa's Gauteng Province along with the dimensions that need to be managed. The gap that exists between what customers are expecting and experiencing can be ameliorated if the recommendations provided are implemented. Further recommendations and insights could be gained should future research be conducted that includes a broader scope of respondents as well as making use of more than one research approach to collect the data. Additionally, future research could investigate why the respondents deem some of the service quality dimensions as more important than others. Moreover, future research could also include a more in-depth discussion on the sustainability and competitiveness of the fast-food franchise industry as well as include more provinces, or South Africa as a whole. In conclusion, the researchers trust that fast-food franchises will realise the importance of meeting and exceeding customers' expectations to ensure high levels of customer satisfaction as well as to ensure that the fast-food franchises stay sustainable and competitive.

## 7. REFERENCES

- Alam, A., Roy, D. & Akther, R. 2016. Consumers' expectation and perception toward mobile telecommunication usage in Bangladesh. *Asian Business Review*, 6(1):57-64. <https://doi.org/10.18034/abr.v6i1.27>
- Ali, M. & Raza, S.A. 2017. Service quality perception and customer satisfaction in Islamic banks of Pakistan: the modified SERVQUAL model. *Total Quality Management & Business Excellence*, 28(5-6):559-577. <https://doi.org/10.1080/14783363.2015.1100517>
- Allied Market Research. 2020. South Africa Fast Food Market to Reach \$4.9 Billion, by 2026: Allied Market Research. <https://www.globenewswire.com/fr/news-release/2020/04/09/2014443/0/en/South-Africa-Fast-Food-Market-to-Reach-4-9-Billion-by-2026-Allied-Market-Research.html> Date of access: 11 October 2022.
- Al-Neyadi, H.S., Abdallah, S. & Malik, M. 2018. Measuring patient's satisfaction of healthcare services in the UAE hospitals: using SERVQUAL. *International Journal of Healthcare Management*, 11(2):96-105. <https://doi.org/10.1080/20479700.2016.1266804>
- Bordeaux, J. 2019. *What is customer experience?* <https://blog.hubspot.com/service/what-is-customer-experience> Date of access: 15 September 2022.
- Business Queensland. 2020. *Meeting customers' expectations*. <https://www.business.qld.gov.au/running-business/consumer-laws/customer-service/improving/expectations> Date of access: 17 September 2022.
- BusinessTech. 2019. *Big increase in complaints about poor service in South Africa – here's what you need to know*. <https://businesstech.co.za/news/business/324211/big-increase-in-complaints-about-poor-service-in-south-africa-heres-what-you-need-to-know/> Date of access: 17 September 2022.
- BusinessTech. 2019. *These are the biggest fast food franchises in South Africa*. <https://businesstech.co.za/news/business/331387/these-are-the-biggest-fast-food-franchises-in-south-africa-2/> Date of access: 8 September 2022.
- Dube, K. 2021. Implications of COVID-19 induced lockdown on the South African tourism industry and prospects for recovery. *African Journal of Hospitality, Tourism and Leisure*, 10(1):270-287.
- Gahler, M., Klein, J.F. & Paul, M. 2019. Measuring customer experiences: a text-based and pictorial scale. *Marketing Science Institute Working Paper Series Report*, 19(119):1-54.
- Hadi, N.U, Aslam, N. & Gulzar, A. 2019. Sustainable service quality and customer loyalty: the role of customer satisfaction and switching costs in the Pakistan cellphone industry. *Sustainability*, 11(8):2408-2424. <https://doi.org/10.3390/su11082408>
- Haming, M., Murdifin, I., Syaiful, A.Z. & Putra, A.H.P.K. 2019. The application of SERVQUAL distribution in measuring customer satisfaction of retails company. *The Journal of Distribution Science*, 17(2):25-34. <http://dx.doi.org/10.15722/jds.17.02.201902.25>
- Hanaysha, J. 2016. Testing the effects of food quality, price fairness, and physical environment on customer satisfaction in fast food restaurant industry. *Journal of Asian Business Strategy*, 6(2):31-40. <https://doi.org/10.18488/journal.1006/2016.6.2/1006.2.31.40>
- Jain, R., Aagja, J. & Bagdare, S. 2017. Customer experience—a review and research agenda. *Journal of Service Theory and Practice*, 27(3):642-662. <https://doi.org/10.1108/JSTP-03-2015-0064>
- Jehanzeb, K., Hamid, A.B.A. & Rasheed, A. 2015. What is the role of training and job satisfaction on turnover intentions. *International Business Research*, 8(3):208-220. <http://dx.doi.org/10.5539/ibr.v8n3p208>
- Jiang, X. Wang H, Guo, X. & Gong, X. 2019. Using the FAHP, ISM, and MICMAC Approaches to Study the Sustainability Influencing Factors of the Last Mile Delivery of Rural E-Commerce Logistics. *Sustainability*, 11(14):3937. <https://doi.org/10.3390/su11143937>
- Kamaruddin, R., Osman, I. & Pei, C.A.C. 2017. Customer expectations and its relationship towards public transport in Klang Valley. *Journal of Asian Behavioural Studies*, 2(4):29-39. <https://doi.org/10.21834/jabs.v2i4.204>

- Kanyan, A., Ngana, L. & Voon, B.H. 2016. Improving the service operations of fast-food restaurants. *Procedia-Social and Behavioral Sciences*, 224:190-198. <https://doi.org/10.1016/j.sbspro.2016.05.439>
- Kasiri, L.A., Cheng, K.T.G., Sambasivan, M. & Sidin, S.M. 2017. Integration of standardization and customization: impact on service quality, customer satisfaction, and loyalty. *Journal of Retailing and Consumer Services*, 35:91-97. <https://doi.org/10.1016/j.jretconser.2016.11.007>
- Kleinhans, E.H., Van Heerden, C.H. & Kleyhans, I.C. 2019. A dining experience typology of Middle of the Pyramid (MOP) consumers in Gauteng. *African Journal of Hospitality, Tourism and Leisure*, 8(5):1-17.
- Liu Y, Dong E, Li S, Jie X. 2020. Cruise tourism for sustainability: An exploration of value chain in Shenzhen Shekou Port. *Sustainability*, 12(7):3054-3071. <https://doi.org/10.3390/su12073054>
- Liu, W.K., Lee, Y.S. & Hung, L.M. 2017. The interrelationships among service quality, customer satisfaction, and customer loyalty: examination of the fast-food industry. *Journal of Foodservice Business Research*, 20(2):146-162. <https://doi.org/10.1080/15378020.2016.1201644>
- Manner, M. 2018. *The significance of customer satisfaction in mobile repair shop context*. [https://www.theseus.fi/bitstream/handle/10024/148452/Manner\\_Markus.pdf?sequence=1](https://www.theseus.fi/bitstream/handle/10024/148452/Manner_Markus.pdf?sequence=1) Date of access: 22 September 2022.
- Martini, L.K.B., Suardana, I.B.R. & Astawa, I.N.D. 2018. Dimension effect of tangibles, reliability, responsiveness, assurance, empathy, leadership towards employee satisfaction. *International Research Journal of Management, IT and Social Sciences*, 5(2):210-215.
- McColl-Kennedy, J.R., Zaki, M., Lemon, K.N., Urmetzer, F. & Neely, A. 2019. Gaining customer experience insights that matter. *Journal of Service Research*, 22(1):8-26. <https://doi.org/10.1177/1094670518812182>
- Meesala, A. & Paul, J. 2018. Service quality, consumer satisfaction and loyalty in hospitals: thinking for the future. *Journal of Retailing and Consumer Services*, 40:261-269. <https://doi.org/10.1016/j.jretconser.2016.10.011>
- Mhlanga, O. 2018. The fast food industry in South Africa: the micro-environment and its influence. *African Journal of Hospitality, Tourism and Leisure*, 7(4):1-18.
- Morgan, B. 2017. *What is customer experience?* <https://www.forbes.com/sites/blakemorgan/2017/04/20/what-is-customer-experience-2/#50ad21c270c2> Date of access: 26 September 2022.
- Namin, A. 2017. Revisiting customers' perception of service quality in fast food restaurants. *Journal of Retailing and Consumer Services*, 34:70-81. <https://doi.org/10.1016/j.jretconser.2016.09.008>
- Nguyen, T.L.H. & Nagase, K. 2020. Total quality management: a mediating factor in the relationship between customer expectations and satisfaction. *International Journal of Management and Marketing Research*, 13(1):1-13.
- Nuryanto, I. & Farida, I. 2020. The level of service quality of fast-food restaurants in Semarang. *Jurnal Penelitian Ekonomi dan Bisnis*, 5(2):212-219.
- Nyadzayo, M.W. & Khajehzadeh, S. 2016. The antecedents of customer loyalty: a moderated mediation model of customer relationship management quality and brand image. *Journal of Retailing and Consumer Services*, 30:262-270. <https://doi.org/10.1016/j.jretconser.2016.02.002>
- Parasuraman, A., Zeithaml, V. & Berry, L. 1988. SERVQUAL: a multiple-item scale for measuring consumer perception of service quality. *Journal of Retailing*, 64(1):12-40.
- Ramakrishnan, S., Kumar, K.V. & Chandran, N. 2019. Design for customer satisfaction—a proactive approach to input customer expectations in design phase. *Technology*, 10(1):534-542.
- Rana, M.W., Lodhi, R.N., Butt, G.R. & Dar, W.U. 2017. How determinants of customer satisfaction are affecting the brand image and behavioral intention in fast food industry of Pakistan. *Journal of Tourism and Hospitality*, 6(6):1-6. <https://doi.org/10.4172/2167-0269.1000316>
- Saleh, L., Esam, H. & Elias, A.N.E. 2016. Customers and staff perception towards all-inclusive programs in resort hotels. *International Journal of Heritage, Tourism and Hospitality*, 7(2):46-63.

- Shandilya, G., Singh, S. & Srivastava, A.R. 2018. Department impact of consumers' perception on the service quality of fast-food sector. *International Journal of Mechanical Engineering and Technology*, 9(2):74-87.
- Sunaryo, I. 2019. Effects of food quality, service quality, price, environment, and location towards customer loyalty of Indonesia's local fast food industry. *Jurnal Teknik Industri*, 14(3):119-128. <https://doi.org/10.14710/jati.14.3.119-128>
- Trișcă, G. 2017. The affective nature of customer expectations and their constitutive impact on customer experience. *Studii Economice*, 24(1):211-220.
- Tsafarakis, S., Kokotas, T. & Pantouvakis, A. 2018. A multiple criteria approach for airline passenger satisfaction measurement and service quality improvement. *Journal of Air Transport Management*, 68:61-75. <https://doi.org/10.1016/j.jairtraman.2017.09.010>
- Velasco, C., Michel, C., Youssef, J., Gamez, X., Cheok, A.D. & Spence, C. 2016. Colour–taste correspondences: designing food experiences to meet expectations or to surprise. *International Journal of Food Design*, 1(2):83-102. [https://doi.org/10.1386/ijfd.1.2.83\\_1](https://doi.org/10.1386/ijfd.1.2.83_1)
- Walker, J.T. & Maddan, S. 2019. *Statistics in criminology and criminal justice*. 5<sup>th</sup> ed. Burlington, MA: Jones & Bartlett Learning.