# Towards Gender-Based Market Segmentation: The Differential Influence of Gender on Dining Experiences in the University Cafeteria Industry

*Paul MUKUCHA*[1]
*Divaries Cosmas JARAVAZA*[2]
*Forbes MAKUDZA*[3]

**ABSTRACT**
*The study sought to determine gender differences in dining experiences in the university cafeteria industry in Zimbabwe, with the ultimate goal of providing the basis for gender-based market segmentation. The dimensions of the dining experiences investigated were the atmospherics experience, the food experience, and the service experience; these were also informed by the literature. Data was collected in a systematic survey using a structured questionnaire. The study targeted university students and a sample of 150 was analysed. Data was analysed using the one-way MANOVA. The results indicated that there were no statistically significant gender differences along all dimensions of dining experiences. The conclusions made are that males and females do not respond differently to marketing stimuli in the cafeteria industry, and therefore there is no viable market segmentation on the basis of gender. It was recommended that if any need for market segmentation of the cafeteria market exists, it must be done on other segmentation basis such as geographic, psychographic, behavioural, or other demographic factors such as age and religion.*

**KEYWORDS:** *customer experience, gender, marketing, market segmentation*

**JEL CLASSIFICATION:** *M30, M31, M37*

## 1. INTRODUCTION

Cafeteria businesses are one of the most thriving economic activities in the ailing Zimbabwean economy. A cafeteria system is common in public institutions like hospitals, prisons, police camps, army barracks, church gatherings, and academic institutions. Tertiary education institutions in Zimbabwe use the cafeteria system to serve both traditional food and fast food to their students and staff. Fast food served in the cafeteria system is usually in the form of finger foods such as potato chips, pizza, fried chicken, sandwiches, and hamburgers. The increase in the number of academic institutions in Zimbabwe and the subsequent increase in enrollment have led to the growth of the cafeteria business. Until the early 1990s there was only one university in Zimbabwe; however, thirty years down the line there are now over 16 universities with a combined enrolment exceeding 100 000 students. The majority of these students need cafeteria services for the inevitable biological reasons of satisfying hunger. Moreover, the exponential growth of the university cafeteria business is due to the demanding nature of academic work, which entails limited spare time to prepare for meals. As a result, many students are finding it more convenient to rely on canteen services as their primary source of meals. The most common feature that naturally distinguishes the patrons in the cafeteria system among other features is gender.

[1] Bindura University of Science Education, Zimbabwe, paulmukucha@gmail.com
[2] Bindura University of Science Education, Zimbabwe, divariescjaravaza@gmail.com
[3] *University of Zimbabwe, Zimbabwe, forbesmakudza@gmail.com

Demographic factors, such as gender, have been commonly used to segment markets in various industries (Arnould, Price & Zinkhan, 2005). According to Kotler and Keller (2016), males and females behave differently and hold different attitudes due to the variation in both their genetic make-up, and socialisation. Gender has been used as the bases for market segmentation in several industries that include, but are not limited to, the clothing industry, automotive industry, entertainment industry, education industry, and the household appliances industry. It is altruism that several products and services are produced primarily for consumption along gender basis such as bras, pregnancy test kits, contraceptives, and hair dressing services (Schiffman, Kanuk & Kummar, 2010).

However, there are no known studies that sought to establish whether there are any statistically significant gender differences in terms of dining experiences in the food service industry in general and the cafeteria sector in the tertiary education industry in particular. This study offers a unique contribution through the examination of gender differences among the three dimensions of dining experiences, namely, atmospherics experience, food experience, and service experience. Such an examination informs strategic marketing segmentation on the basis of gender and augments customer experience of cafeteria services.

## 2. LITERATURE REVIEW

### 2.1. Gender and gender-based market segmentation

Gender is one of the most widely studied constructs in many disciplines in both hard sciences and social sciences (Mooney & Gewinner, 2022). Gender has been used interchangeably with sex, although attempts have been made in the literature to distinguish between the two (Thornton et al., 2022). Gender is a psychological construct that underlies the personality traits of being masculine and feminine (Bem, 1981), while sex refers to the biological differences between males and females (Mooney & Gewinner, 2022). In this study, gender refers to the biological sex. Gender differences have been extensively studied on several issues such as education (Radovic, 2018), personality traits (South, Jarnecke & Vize, 2018), subjective well-being (Batz & Tay, 2018), social media usage (Joiner, Dapkeviciute, Johnson, Gavin & Brosnan, 2015; Makudza, Mugarisanwa & Siziba, 2020), human brain configuration (Zaidi, 2010), entrepreneurship practice (Pines, Lerner & Schwartz, 2010), ethics (Becker & Ulstad, 2007), consumer behaviour (Mattila, Grandey & Fisk, 2003), and customer service orientation (Mathies & Burford, 2011). Gender differences have also been conceptually discussed as being relevant to the market segmentation processes (Kotler & Keller, 2016).

Market segmentation is one of the most popular concepts in the marketing philosophy. Market segmentation is the dividing of a large heterogeneous market into homogeneous sub-segments (Kotler & Keller, 2016). The major thrust for segmenting a market using gender base is to minimise within group variance, and maximise variance between target groups (Vohlídalová, 2021). Furthermore, gender-based market segmentation is the foundation for market targeting and product positioning in markets and customer segments that are gender sensitive (Haverila, Haverila & McLaughlin, 2021). Several bases for market segmentation exist in the extant literature, but gender is arguably the most prominent in consumer markets (Vohlídalová, 2021).

### 2.2 Dining experience

Experiences are the interactions of customers with several elements which are both animate and inanimate in a natural or staged environment (Makudza, 2021). Verhoef, Lemon, Parasuraman,

Reggeveen, Tsiros, and Schlesinger (2009) contend that the customer experience construct has traditionally been regarded as a surrogate of other widely established constructs like perceived service quality, customer satisfaction, and customer loyalty. The idea of experiences in the consumption setting can be traced back to the works of Holbrook and Hirchman (1982), but popularised by Pine and Gilmore (1998). According to Pine and Gilmore (1998), experiences are staged in an effort to create memorable impressions through engaging all the five senses of customers. Experience has been defined as the subjective feeling developed by customers as a result of their interaction with several marketing stimuli during the service encounter (Gentile, Spiller & Noci, 2007). Customer experience is further defined as the sensation a customer receives from interacting with multiple touch-points in a context designed by the service provider (Fernandes & Neves, 2014).

In the restaurant industry, customers interact with both animate and inanimate objects in the food-service environment to generate dining experiences. The dining experience is thus defined as what a customer goes through during service encounter in a canteen. Dining experience as a construct has appeared in a number of studies that focused on the restaurant industry (Harrington, Ottenbacher, Staggs & Powell, 2012; Sulek & Hensley, 2004). This resulted in many contemporary studies contending that dining experience is a multidimensional construct emanating from a combination of atmospherics experience, food experience, and service experience. That follows that dining experiences in the restaurant industry are generated through the interaction between customers and several elements in the dining environment such as the atmosphere, food, and service (Harrington et al., 2012; Sulek & Hensley, 2004).

### *2.2.1 Food experience*

Dining experiences are generated mostly from the interaction between customers and food served to them in a cafeteria (Batat, 2021). The level of food quality determines the pleasantness of the dining experiences (Horng & Hsu, 2021). Usually, customers are faced with the three food attributes, namely, appeal, dietary contents, and safety (Sulek & Hensley, 2004). Food safety is usually apparent to the customers during and after consumption (Harrington et al., 2012). Undercooked food and foreign objects in food are noticeable during food consumption, and poisonous food becomes evident soon after the consumption exercise (Sulek & Hensley, 2004). Customers tend to have unmistaken memories of their experiences with food they had just eaten from a restaurant, especially if it had raised some safety concerns (My, Demont & Verbeke, 2021). Generally, good food is mostly appealing to the senses of taste, sight, touch, and smell (Harrington et al., 2012). This translates into pleasant taste, appropriate temperature, appealing smell, and comfortable texture (Namkung & Jang, 2007). The food experience is finally enhanced by meeting the recommended dietary recommendations. Dietary recommendations from most dieticians prescribe that food must be low in fat, carbohydrates, and sodium, and high in protein and fiber (Wu, Yousif, Miles & Braakhuis, 2022).

Previous research on gender differences in food experiences produced consistent results. A study by Kim, Aves, and Scarles (2009) using a grounded-theory approach across different types of food outlets revealed that there are gender differences in various aspects of dining experiences. Another study by Mhlanga and Machingambi (2016) indicated significant gender differences in food experience expectations. Similarly, a study by Kivela, Ibakaran and Reece (2000), and Upadhyay, Singh, and Thomas (2007) also lend some empirical support to the prevalence of gender differences in dining experience. This empirical framework offers some insights into the possibilities of some gender differences in food preferences and experiences. However, while most of these studies are consistent in their findings as has already been alluded

to, they tend to focus on the mainstream restaurant set up leaving out the equally important cafeteria system. Therefore, drawing from the reviewed literature, it can be hypothesised that;

H1: There are gender differences in food experiences in the university cafeteria system.

### *2.2.2 Atmospherics experience*

Food forms the primary source of dining experience, but it must be complemented with other crucial experiences emanating from the atmospherics of dining experience (Harrington, Ottenbacher & Kendall, 2011). Experience-centric services are dominated with the atmospherics (Fernandes & Neves, 2014). Customers interact with atmospherics in order to generate dining experiences. Atmospherics is a term coined by Kotler (1973) in reference to the physical environment specifically designed to facilitate service delivery during service encounters. Atmospherics refer to the physical set-up in a restaurant comprising of ambient factors and design factors (Bitner, 1992). Ambient factors are invisible background characteristics (Jang & Numkung, 2009). The major sensory channels for dining experiences generated from restaurant ambience are touch (cleanliness), scent, sound (music, sound levels), and sight (light, colour) (Kotler, 1973). Design factors refer to tangible cues in a dining room like tables, chairs, and napkins (Lin & Liang, 2011). Customers tend to have pleasant dining experiences from atmospherics when they have encounters with clean physical facilities, attractive decorations, and comfortable seating arrangements (Han & Ryu, 2009). Comfortable seating and queuing are very important in restaurant businesses, since in some cases customers may be made to wait for their orders. This is very apparent with the cafeteria system, where customers may be made to wait for a considerably longer period of time before they are served.

Previous research has established that male and female customers tend to have pleasant atmospherics experiences when dining in restaurants with less bright and ambient light (Spence & Piqueras-Fiszman, 2012). Another research revealed that males prefer strong coffee are more comfortable with bright lights, while women prefer weak coffee and are inclined towards dim-lighted environments (Gal, Wheeler & Shiv, 2007). However, a study by Mhlanga and Machingambi (2016) did not reveal any significant gender differences in terms of atmospherics experience expectations in full-service restaurants in a resort town of Port Elizabeth in South Africa. Therefore, basing on findings in the extant literature, it can be hypothesised that;

H2: There are gender differences in atmospherics experiences in the university cafeteria system.

### *2.2.3 Service experience*

Atmospherics experience as a dimension of dining experience is aptly supplemented by service experience. Service experience is another contributor to the overall pleasant dining experiences (Sukhu & Bilgihan, 2021). Helkkula (2011) addressed the ontological, epistemological, and methodological issues related to the concept of service experience and concluded that service experience is a core outcome in a service delivery system. Service experience is a result of the interaction between service employees and customers (Bitner, Faranda, Hubbert & Zeithaml, 1997) and it is generated during service encounters (Farrell, Souchon & Durden, 2010). Service experience generally relies on employee behaviours (Harrington et al., 2012), such as being attentive and polite (Sulek & Hensley, 2004).

Conflicting results on the prevalence of gender differences in service experience are plentiful in the existing marketing literature. Empirical studies by Mhlanga, Hattingh and Moolman

(2015) and Kivela et al. (2000) lent support to the notion that gender differences exist in service experiences in the dining context. However, another study by Mhlanga and Machingambi (2016) exposed no significant gender differences in terms of expectations for service experiences. Previous research has established that males and females respond differently during service delivery. Males are more object-oriented than females, while females are more service-oriented than males (Sukhu & Bilgihan, 2021). In the absence of conclusive empirical results on gender differences, an inclination towards theory is more plausible. Therefore, drawing from the extant literature it can be hypothesised that;

H3: There are gender differences in service experiences in the university cafeteria system.

## 3. METHODOLOGY

### 3.1 Population and sampling

The study targets university students who frequently dine in university canteens. A sample size of 150 respondents was surveyed based on factor analysis requirements that a sample should be determined by at least five respondents per item (Watkins, 2018; Bryant & Yarnold, 1995). In this case the data collection instrument had 30 items which when multiplied by 5 leads to a sample size of 150. Moreover, data solutions with high loading variables make a sample size of 150 adequate (Tabachnick & Fidell, 2007). Furthermore, in support of the sample size of 150, Hair, Black, Babin and Anderson (2014) suggested that any sample above 100 is adequate for factor analysis.

Data was collected over a period of three days. The data collection period was deliberately made short so that all the respondents could be contacted within the same macro-economic conditions. This was necessitated by the fact the macro-economic conditions in Zimbabwe had of late been volatile and therefore it was imperative to collect data before any changes that may potentially alter the dining experiences could take place.

Convenience sampling was used to select respondents since there was no reliable sampling frame. Convenience sampling refers to targeting respondents that are easily available (Saunders, Lewis & Thornhill, 2016; Zikmund & Babin, 2007). This was motivated by the fact that some respondents demanded for their privacy or were busy to the extent that they could not partake in this study. The sampling process deliberately targeted lone customers in order to avoid a confounding situation (Barger & Grandey, 2006). The customers were requested to take part in this study soon after their dining experiences in order to get their responses whilst their memories were still fresh.

### 3.2 Measures

Data was collected using a self-report questionnaire that had two sections: dining experiences and demographics. The dining experiences section was made up of items that were drawn from the extant culinary literature on food experience (Ryu, Lee & Kim, 2012; Namkung & Jang, 2007) and are shown as follows;

- FQ1 The food was delicious
- FQ2 The food served was fresh
- FQ3 The food was well prepared
- FQ4 The food was tasty
- FQ5 The food was served at the right temperature

- FQ6 The quality of food was excellent
- FQ7 The food was attractively packaged
- FQ8 The food served was healthy
- FQ9 The amount of food was as large as I expected

Atmospherics experience was measured with ten items drawn from Ryu et al., (2012); Lin and Liang (2011); Lim (2010); Han and Ryu (2009) and are indicated as follows;

- AT1 The atmosphere provided a pleasant dining experience
- AT2 The restrooms were clean
- AT3 The dining room was clean
- AT4 Music played improved the dining experience
- AT5 The seating arrangement was comfortable
- AT6 The lighting was adequate
- AT7 There was sufficient supply of items such as sauces, utensils, and napkins
- AT8 I enjoyed the decoration in the restaurant
- AT9 Smell in the restaurant was pleasant
- AT10 Temperature in the restaurant was pleasant

Service experience was measured using 11 items from Ryu et al., (2012); Ramseook-Munhurrun, (2012); Lin and Liang, (2011) and are shown as follows;

- SQ1 The menu had a variety of items to choose from
- SQ2 The restaurant served me low calorie dishes
- SQ3 The employees addressed my concerns efficiently
- SQ4 The employees served me with a smile
- SQ5 Employees had name tags for easy identification
- SQ6 The restaurant's services had a provision for children
- SQ7 The waiting time for my order was short
- SQ8 The employees were very friendly
- SQ9 The speed of service was as per my expectations
- SQ10 My order was correct and complete
- SQ11 I received correct change at the check-out point

The items were selected based on how they tapped into the conceptual domain of the focal construct (Watkins, 2018), which in this study was dining experience.

### 3.3 Data analysis procedures

Data analysis was conducted in two phases: measurement scale validation and hypotheses testing. The initial stage of measurement scale validation involved tests for unidimensionality using Exploratory Factor Analysis (EFA) in the Statistical Package for Social Scientists (SPSS) software. EFA is a multivariate statistical tool that is mostly used for data reduction into composite factors that can be regarded as latent variables (Child, 2006; O'Leary-Kelly & Vokurka, 1998). One of the major strengths of EFA is that it can deal with data that violet both multivariate normality and non-normality (Fabrigar & Wegener, 2012). In this study, EFA was used to determine the patterns of correlations between items measuring dining experiences (Burns & Burns, 2008), and identify the dimensions of customers' dining experiences for subsequent application in further statistical tests related to the developed hypotheses (Hair et al., 2014). The factor structure that emerged from the EFA process was subjected to a Confirmatory Factor Analysis (CFA) using Analysis of Moment Structures (AMOS). CFA is a statistical tool that validates a measurement model before specifying and estimating the

parameters of the structural model. CFA produces a parsimonious model through its ability to leverage on placing restrictions on various parameter estimates, such as factor loadings, covariances, and residual variances (Brown, 2015).

Measurement scale validation was followed by hypotheses testing. Hypothesis testing was conducted using one-way Multivariate Analysis of Variance (MANOVA). One-way MANOVA is a robust statistical tool that works well for studies that have a categorical independent variable and multiple metric dependent variables that are conceptually related (Tabachnick & Fidell, 2007). The independent variable in this study was gender. Gender is naturally categorical. The dependent variables are atmospherics experience, food experience, and service experience which are conceptually the dimensions of dining experience construct. The other requirements for the use of one-way MANOVA are statistical in nature and are therefore discussed in the results section.

## 4. DATA ANALYSIS

The results of this study are presented in three sections, namely, demographic profile of the respondents, measurement scale validation, and hypotheses testing.

### 4.1 Demographic profile of respondents

Table 1 shows the demographic profile of the respondents who participated in this study, which includes items such as age, gender, and level of education enrolled.

**Table 1. Demographic profile of respondents**

| **Attribute** | **N** | **%** |
|---|---|---|
| **Age** | | |
| 18-30 | 138 | 92 |
| 31-40 | 11 | 7.3 |
| 41-50 | 1 | 0.7 |
| **Gender** | | |
| Male | 72 | 48 |
| Female | 78 | 52 |
| **Education** | | |
| Undergraduate | 140 | 93 |
| Postgraduate | 10 | 7 |

*Source:* statistical output

Most of the respondents in this study are in the age group of 18-30 (92%), reflecting the demographic age group that is enrolled in most universities in Zimbabwe. The age group of 31-40 years was represented by 7.3%, while the 41-50 years age group had 0.7% only. The gender of the respondents was 48% male, and 52% female. This is in line with the trend in the tertiary education sector which of late has shown that more female students are being enrolled than male students. Lastly, the majority of the respondents (93%) were undergraduate students, while postgraduates constituted only 7%.

### 4.2 Measurement scale validation

The measurement validation process assessed unidimensionality, model fit, convergent validity, discriminant validity, composite reliability, and measurement invariance.

### *4.2.1 Unidimensionality tests*

A unidimensional construct is a unitary concept underlying a single set of measures (Boudreau et al., 2010; Gefen, 2004). Unidimensionality tests were conducted using EFA. One of the conditions for conducting EFA is that there must be sufficient correlations among observed variables (Brown, 2015). This condition was assessed using the Bartlett's test of sphericity, and the Kaiser-Meyer-Olkin (KMO) index.

**Table 2. Pattern Matrix**

| | | **Food Quality** | **Atmospherics Quality** | **Service Quality** |
|---|---|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .907 | .897 | .806 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 807.200 | 776.898 | 403.020 |
| | Df | 55 | 45 | 36 |
| | Sig. | .000 | .000 | .000 |

| | Food Quality | | | Atmospherics Quality | | | Service Quality | |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | | 1 | 2 | | 1 | 2 |
| FQ4 | .964 | | AT3 | .878 | | SQ4 | .728 | |
| FQ3 | .886 | | AT2 | .827 | | SQ3 | .685 | |
| FQ1 | .840 | | AT5 | .702 | | SQ2 | .657 | |
| FQ6 | .639 | | AT6 | .654 | | SQ6 | .585 | |
| FQ2 | | | AT1 | .578 | | SQ1 | | |
| FQ7 | | | AT7 | | .754 | SQ5 | | |
| FQ5 | | | AT4 | | .731 | SQ7 | | |
| FQ9 | | .782 | AT9 | | .680 | SQ8 | | -.885 |
| FQ8 | | .605 | AT8 | | .583 | SQ9 | | -.593 |
| FQ11 | | | AT10 | | | | | |
| FQ10 | | | | | | | | |
| Extraction Method: Principal Axis Factoring. Rotation Method: Oblimin with Kaiser Normalization. | | | Extraction Method: Principal Axis Factoring. Rotation Method: Oblimin with Kaiser Normalization. | | | Extraction Method: Principal Axis Factoring. Rotation Method: Oblimin with Kaiser Normalization. | | |

*Source:* statistical output

The Bartlett's test of sphericity indicated that the data was not an identity matrix, $p<.001$, and the KMO indices that ranged in the meritorious region from 0.906 to 0.907 revealed that there was sufficiency of covariance in the scale items. These two tests suggested that the data set was factorable. Having ascertained the factorability of the data set, the next statistical test assessed the factor loading patterns of the items and the results are shown in Table 2. The extraction of the underlying factor structure was conducted using the Principal Axis Factoring (PAF) method. Factor loadings were assessed by examining the pattern matrix.

The results shown in Table 2 indicated that EFA extracted 2 factors for each construct. The study only took the first factors to represent their respective latent variables. Food quality was represented by FQ1, FQ3, FQ4, and FQ6, Atmospherics quality was represented was represented

by AT1, AT2, AT3, AT5, and AT6, and Service Quality was represented by SQ2, SQ3, SQ4, and SQ6.

### *4.2.2 Model fit*

The unidimensional items representing the latent variables were subjected to CFA in order to determine the model fit. CFA tests a proposed factor structure and, more specifically, the internal structure of a scale (Hair et al., 2014). Model fit is the extent to which an empirical covariance matrix resembles the implied covariance matrix, or how well the model assumptions fit to the data. The model fit was assessed inferentially using the $X^2$ test, and descriptively using tests based on model comparisons measures, and model parsimony measures (Brown, 2015). At least one fit index was chosen from each category.

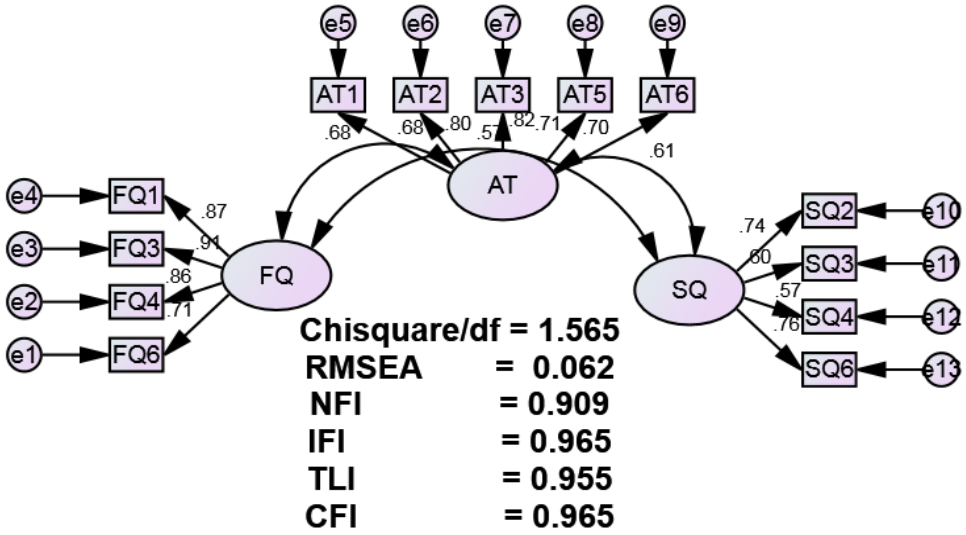


**Figure 1. Measurement model**
*Source:* statistical output

The indices indicated a good fit of the three-factor structure to data, $X^2$/df = 1.565; RMSEA=0.062; NFI = 0.909; IFI = 0.965; TLI = 0.955; CFI = 0.956. An $X^2$ is the primary index for assessing model fit. However, the $X^2$ is sensitive to sample sizes, and therefore a $X^2$/df served as an appropriate alternative. An $X^2$/df value of 1.565 which was less than the threshold value of 3 provided further evidence of the model fit (Hair et al., 2014).

### *4.2.3 Construct Validity and Composite Reliability*

The construct validity test involves an assessment of convergent validity and discriminant validity using CFA. CFA produces results that provide compelling evidence of convergent and discriminant validity (Brown, 2015). Convergent validity is the extent to which the measured items reflect the theoretical latent variable. Discriminant validity determines whether two conceptually distinct constructs are statistically different. The results for convergent validity and discriminant validity are shown in Table 3.

**Table 3. AVE, CR, Shared Variance, and Measurement Invariance**

| Construct | Item | ʎ | ϵ | CR | Sig | Indicator reliability | AVE | CR | ϵ | SV | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | 1 | 2 | 3 |
| Food quality (1) | FQ1 | .752 | | | | .566 | 0.725 | 0.929 | 1.376 | 1 | | |
| | FQ3 | .899 | .089 | 16.570 | *** | .808 | | | | | | |
| | FQ4 | .874 | .095 | 16.034 | *** | .764 | | | | | | |
| | FQ6 | .874 | .089 | 16.027 | *** | .764 | | | | | | |
| Service quality (2) | SQ2 | .862 | | | | .743 | 0.634 | 0.897 | 0.829 | 0.611 | 1 | |
| | SQ3 | .815 | .051 | 18.213 | *** | .664 | | | | | | |
| | SQ4 | .943 | .045 | 24.182 | *** | .889 | | | | | | |
| | SQ6 | .935 | .043 | 23.787 | *** | .874 | | | | | | |
| Atmospherics quality (3) | AT1 | .883 | | | | .780 | 0.690 | 0.811 | 2.326 | 0.399 | 0.416 | 1 |
| | AT2 | .796 | .049 | 17.678 | *** | .634 | | | | | | |
| | AT3 | .831 | .050 | 19.111 | *** | .691 | | | | | | |
| | AT5 | .860 | .049 | 20.176 | *** | .740 | | | | | | |
| | AT6 | .677 | .056 | 13.457 | *** | .458 | | | | | | |

| Model | DF | CMIN | P |
|---|---|---|---|
| Measurement weights (Assuming Unconstrained model to be correct) | 10 | 6.540 | .768 |
| Measurement intercepts (Assuming Measurement weights model to be correct) | 13 | 9.774 | .712 |
| | | | |

*Source:* statistical output

The results indicated that the three-factor model had sufficient convergent validity as indicated by all the items significantly loading to their latent variables. The results also provided evidence of discriminant validity on the basis of the average variance extracted (AVE) for each construct being higher than the shared variance for any pair of constructs. Furthermore, all the constructs exhibited sufficient composite reliability, as indicated by their respective coefficients being above the minimum threshold of 0.7. Additionally, all the items had acceptable indicator reliabilities of above 0.4.

This study assessed the measurement invariance (MI), since conclusions made in studies that do not provide evidence of measurement invariance are weak (Horn, 1991). A violation of the MI assumption leads to misleading and invalid interpretation and conclusions (Meredith, 1993). This is particularly the case in studies that make comparisons with different independent groups. MI was assessed across all the different levels: configural invariance, metric invariance, scalar invariance, strict invariance, except the latter. All the levels of MI were tested using Multi-Group Confirmatory Factor Analysis (MG-CFA) through assessing the fit of an unconstrained model for

the configural invariance, imposing equality constraints on factor loadings across the study groups for the metric invariance, and imposing constraints on item intercepts and factor loadings for the scalar invariance (Cheung & Rensvold, 2002).

The presence of configural invariance was assessed by fitting the measurement model to data for each group separately with all the parameters unconstrained (Hair et al., 2010). The fit indices of separate baseline models for males were CMIN/df = 1.364, IFI = 0.951, TLI = 0.935, CFI = 0.949, and RMSEA = 0.072, and for females were CMIN/df =1.408, IFI = 0.957, TLI = 0.945, CFI = 0.956, and RMSEA = 0.073. These fit indices being above the minimum of threshold indicated that the three-factor model comprising of atmospherics experience, food experience, and service experience has acceptable configural invariance. The three-factor measurement model for this study demonstrated the presence of metric and scalar invariance, as indicated by the insignificant chi-square values, p = 0.768. p = 0.712, and p = 0.033 respectively. This suggests that all the three measurement scales for the three constructs under study had the same measurement properties across the two study groups.

### 4.3 Hypotheses testing

Having established unidimensionality, construct validity, composite reliability, and measurement invariance, the study proceeded to the second stage of data analysis, which was hypotheses testing. Hypotheses testing was conducted using One-way MANOVA. Prior to the application of One-way MANOVA on the data set, statistical assumptions were tested. Statistical assumptions are conditions that should be met in order to generate valid statistical results. These statistical assumptions are correlation/singularity, normality, linearity, and homoscedasticity.

The first condition for using One-way MANOVA is that the dependent variables must be neither uncorrelated nor highly correlated. The results for testing the levels of collinearity/singularity are shown in Table 4.

**Table 4. Correlation matrix**

| | | **Atmospherics Quality** | **Food Quality** | **Service Quality** |
|---|---|---|---|---|
| Atmospherics Quality | Pearson Correlation | 1 | | |
| | Sig. (2-tailed) | | | |
| | N | 150 | | |
| Food Quality | Pearson Correlation | .589** | 1 | |
| | Sig. (2-tailed) | .000 | | |
| | N | 150 | 150 | |
| Service_Quality | Pearson Correlation | .482** | .462** | 1 |
| | Sig. (2-tailed) | .000 | .000 | |
| | N | 150 | 150 | 150 |
| **. Correlation is significant at the 0.01 level (2-tailed). | | | | |

*Source:* statistical output

The results in Table 4 show that the dependent variables are moderately correlated, and therefore suitable for producing valid results from a one-way MANOVA: Atmospherics quality and Food quality (r = 0.589, n = 0.150, p < 0.001), Atmospherics quality and Service quality (r = 0.482, n = 150, p< 0.001) and Food quality and service quality (r = 0.462, p < 0.00).

The second condition for one-way MANOVA is that the data for all the study variables must be normally distributed along all the dimensions of the independent variable. Normality tests were conducted using the Shapiro-Wilk test and the results are shown in Table 5. The default hypothesis in a Shapiro-Wilk test is that the distribution of a sample is significantly different from a normal distribution.

**Table 5. Normality tests**

| **Univariate normality tests** | **Gender** | **Kolmogorov-Smirnov[a]** | | | **Shapiro-Wilk** | | |
|---|---|---|---|---|---|---|---|
| | | **Statistic** | **Df** | **Sig.** | **Statistic** | **df** | **Sig.** |
| Atmospherics Quality | Male | .132 | 72 | .003 | .949 | 72 | .006 |
| | Female | .094 | 78 | .088 | .973 | 78 | .090 |
| Food Quality | Male | .147 | 72 | .001 | .928 | 72 | .000 |
| | Female | .101 | 78 | .048 | .947 | 78 | .003 |
| Service Quality | Male | .120 | 72 | .012 | .944 | 72 | .003 |
| | Female | .143 | 78 | .000 | .903 | 78 | .000 |

| **Mahanobis distance tests** | **Minimum** | **Maximum** | **Mean** | **Std. Deviation** | **N** |
|---|---|---|---|---|---|
| Predicted Value | .98 | 1.29 | 1.09 | .073 | 150 |
| Std. Predicted Value | -1.563 | 2.759 | .000 | 1.000 | 150 |
| Standard Error of Predicted Value | .030 | .119 | .055 | .016 | 150 |
| Adjusted Predicted Value | .98 | 1.31 | 1.09 | .073 | 150 |
| Residual | -.294 | 2.706 | .000 | .347 | 150 |
| Std. Residual | -.840 | 7.727 | .000 | .990 | 150 |
| Stud. Residual | -.867 | 7.975 | .000 | 1.009 | 150 |
| Deleted Residual | -.313 | 2.883 | .000 | .360 | 150 |
| Stud. Deleted Residual | -.866 | 10.580 | .022 | 1.167 | 150 |
| **Mahal. Distance** | **.090** | **16.124** | **2.980** | **2.567** | **150** |
| Cook's Distance | .000 | 1.038 | .010 | .085 | 150 |
| Centered Leverage Value | .001 | .108 | .020 | .017 | 150 |

*Source:* statistical output

The results of the univariate normality tests indicated that the data set for all the dependent variables did not exhibit univariate normality, as evidenced by the significant p values for all the categories of all the independent variable. Data may fail to follow a normal distribution due to ceiling or floor effects. This refers to a scenario where data values cannot rise or fall beyond certain levels. This handicap was circumvented through using the Pillai's Trace to interpret hypotheses testing results. Pillai's trace is robust to the violations of most of the one-way MANOVA's statistical assumptions (Tabachnick & Fidell, 2007). One-way MANOVA also requires the fulfilment of multivariate normality. However, since multivariate normality is not easy to assess, the identification of multivariate outliers is normally used as a surrogate test for multivariate normality (Tabachnick & Fidell, 2007). The test to identify multivariate outliers was done using the Mahalanobis distance, and the results are shown in Table 5. The results shown in Table 5 indicate that there were no multivariate outliers, as evidenced by the attained Mahalanobis value of 16.124 being below the critical value of 16.27 for the three dependent variables.

The third condition for one-way MANOVA is that all pairs of dependent variables must have a linear relationship. Linearity was tested using the deviation from linearity test and the results are shown in Table 6.

**Table 6. Linearity test**

| | | | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|---|
| Atmospherics Quality * Food Quality | Between Groups | (Combined) | 164.387 | 24 | 6.849 | 3.900 | .000 |
| | | Linearity | 133.353 | 1 | 133.353 | 75.939 | .000 |
| | | Deviation from Linearity | 31.033 | 23 | 1.349 | .768 | .764 |
| Atmospherics Quality * Service Quality | Between Groups | (Combined) | 138.463 | 24 | 5.769 | 2.938 | .000 |
| | | Linearity | 89.137 | 1 | 89.137 | 45.398 | .000 |
| | | Deviation from Linearity | 49.326 | 23 | 2.145 | 1.092 | .363 |
| Food Quality * Service Quality | Between Groups | (Combined) | 172.015 | 24 | 7.167 | 3.315 | .000 |
| | | Linearity | 94.496 | 1 | 94.496 | 43.711 | .000 |
| | | Deviation from Linearity | 77.519 | 23 | 3.370 | 1.559 | .064 |

*Source:* statistical output

The results in Table 6 indicated that there are linear relationships for all the pairs of the dependent variables, as evidenced by the deviation from linearity levels of significance which are shown as follows: Atmospherics quality and food quality, $p = 0.764$; Atmospherics quality and Service quality, $p = 0.363$; and Food quality and service quality, $p = 0.064$.

The fourth condition of homogeneity of variance was assessed using the Levene's test, and homogeneity of variance-covariance was assessed using the Box's M test of equality of covariance. The results for these tests are shown in Table 7.

**Table 7. Homoscedasticity tests**

| Levene's Test of Equality of Error Variances | | | | | Box's Test of Equality of Covariance Matrices | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | F | df1 | df2 | Sig. | Box's M | F | df1 | df2 | Sig. |
| Atmospherics Quality | .620 | 1 | 148 | .432 | 4.605 | .751 | 6 | 155946.340 | .609 |
| Food Quality | .247 | 1 | 148 | .620 | | | | | |
| Service Quality | 2.182 | 1 | 148 | .142 | | | | | |
| Tests the null hypothesis that the error variance of the dependent variable is equal across groups. | | | | | Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups. | | | | |
| a. Design: Intercept + Gender | | | | | | | | | |

*Source:* statistical output

The results revealed that there is equality of variance for all the dependent variables, as indicated by insignificant p values of 0.432, 0.620, and 0.142 for atmospherics quality, food quality, and service quality, respectively. The Box's M test value of 4.605 indicated that the assumption of homogeneity of variance-covariance matrices was met, $F(6, 155946.340) = 0.751$, $p = 0.609$.

Having satisfied most of the statistical assumptions of one-way MANOVA, hypotheses testing was conducted and interpreted using the Pillai's Trace. Pillai's Trace is robust to the violations of normality assumptions which were attained in this study (Tabachnick & Fidell, 2007).

**Table 8. Multivariate tests**

| Effect | | Value | F | Hypothesis df | Error df | Sig. | Partial Eta Squared | Noncent. Parameter | Observed Power[c] |
|---|---|---|---|---|---|---|---|---|---|
| Intercept | Pillai's Trace | .872 | 330.431[b] | 3.000 | 146.000 | .000 | .872 | 991.293 | 1.000 |
| | Wilks' Lambda | .128 | 330.431[b] | 3.000 | 146.000 | .000 | .872 | 991.293 | 1.000 |
| | Hotelling's Trace | 6.790 | 330.431[b] | 3.000 | 146.000 | .000 | .872 | 991.293 | 1.000 |
| | Roy's Largest Root | 6.790 | 330.431[b] | 3.000 | 146.000 | .000 | .872 | 991.293 | 1.000 |
| Gender | Pillai's Trace | .008 | .370[b] | 3.000 | 146.000 | .775 | .008 | 1.109 | .121 |
| | Wilks' Lambda | .992 | .370[b] | 3.000 | 146.000 | .775 | .008 | 1.109 | .121 |
| | Hotelling's Trace | .008 | .370[b] | 3.000 | 146.000 | .775 | .008 | 1.109 | .121 |
| | Roy's Largest Root | .008 | .370[b] | 3.000 | 146.000 | .775 | .008 | 1.109 | .121 |
| a. Design: Intercept + Gender | | | | | | | | | |
| b. Exact statistic | | | | | | | | | |
| c. Computed using alpha = 0.05 | | | | | | | | | |

*Source:* statistical output

The results from a One-way MANOVA test revealed that there are no statistically significant gender differences on the combined dependent variables of atmospherics quality, food quality, and service quality, Pillai's T = 0 .008, F(3,146) =370, p < 0.775, partial $\eta^2$ =.008, observed power = 0.121. Based on these results, evidence was sufficient to accept the null hypothesis and conclude that there are no gender-based differences in dependent variables such as atmospherics quality, food quality, and service quality. The effect size was not large. The observed power was 0.121 indicating that there was a 12.1% chance that the result could have been significant. The obtaining of non-significant MANOVA test value did not necessitate the carrying out of separate one-way Analysis of Variance (ANOVAs) for each dependent variable, and the associated post-hoc tests (Tabachnick & Fidell, 2007).

## 5 DISCUSSION AND RECOMMENDATIONS

The results of this study indicated that there are no gender differences in terms of dining experiences related to food, atmospherics, and service. The results of this study are highly beneficial to managers and operators in the cafeteria industry. Management in the cafeteria industry must not treat males and female as separate market segments with the view of targeting them with different marketing stimuli. From this study it was evident that the experiences of males are not significantly different from those of females. The results of this study are in stark contrast to the expected norm in consumer behaviour. It is generally believed that males are more object-

oriented than females, while females are more relationship-oriented than males (Sukhu & Bilgihan, 2021). It was therefore expected that males being object oriented were going to record experiences that are different from those of females with regard to food experiences. More specifically, males were expected to record lower ratings on food experience, as they are expected to have higher concentration on food evaluation standards than female customers. Similarly, female customers were expected to have lower recordings on service experience since they tend to have stern standards for evaluating service experiences than male customers. The results in this study deviated from the results of a similar study by Harrington et al. (2011), which affirmed the existence of gender differences in food experiences.

The absence of gender differences in service experiences in this study does not also correspond to previous studies. Since service delivery in a cafeteria system involves queuing, it was expected that male customers and female customers would record statistically different results pertaining to their evaluations of the service experiences. Previous research had shown that females are more tolerant to queueing than males (Butcher & Kayani, 2008). However, in this study, a different position was revealed, which shows that there are no gender differences with regard to service experiences.

The study revealed that food experience is important, but needs to be complemented with good atmospherics experience and service experience in order to generate complete pleasant dining experiences. This finding has support from previous empirical findings from the study by Parsa, Self, Njite and King (2005) who found that pleasant food experience alone is not a panacea for success in creating pleasant dining experiences. In fact, earlier on Kotler (1973) had stated that atmospherics have got importance of the same magnitude as the product itself. Thus, in the cafeteria industry, customers tend to have better experiences if the food served meets their expectations together with the accompanying service and atmosphere. This is in line with the Gestalt psychology, which indicates that the whole is greater than the sum of its parts (Lin & Mattila, 2010).

This study further revealed that in order to generate pleasant dining experiences, restaurateurs must provide well-calibrated atmospherics. This could possibly take the form of adequate lighting, pleasant music, appropriate noise level, and aromatic smell. Above all various atmospherics elements should be harmonised (Ariffin, Bibon, Saadiah & Abdulllah, 2011) in line with the Gestalt psychology in order to achieve the best dining experiences.

## 6. CONCLUSIONS

This study empirically concluded that gender does not account for variations in all the dimensions of dining experience in a cafeteria system of the food service industry. Therefore, cafeteria management must exclude gender as a possible base of their market segmentation. Rather, the focus for market segmentation should be on other demographic factors, such as age, income, and marital status. Besides demographic factors, a search for bases of segmentation can also be extended to other categories such as behavioural factors, and psychographic factors. More importantly, geographical factors like residential status of students are other viable bases for cafeteria industry market segmentation.

The absence of gender differences in all the dimensions of dining experience is aptly explained by the expanding roles of both males and females (Kotler & Keller, 2016). This heralds the diminishing explanatory and predictive power of the contemporary gender theories such as the hunter-gatherer theory, social role theory and mate selection theory which hitherto have been the

basis for most gender-based market segmentation in several markets. Moreover, the level of interaction of students at the level of tertiary education has become so open and less restricted by cultural and traditional norms to the extent that gender differences are now grossly blurred (Schiffman, Kanuk & Kumar, 2010). Moreover, African universities in general and Zimbabwean universities in particular had evolved to become epicentres of globalization, which brings with it civilisation standards that discard retrogressive gender stereotypes. The only enduring difference between males and females is their biological makeup, whose relevance is inevitable only in markets like the clothing and healthcare industry. The other aspects related to consumer behavior, such as dining experiences, have been serendipitously unisex.

## REFERENCES


Ariffin, H. F., Bibon, M. F., Saadiah, R. P., & Abdulllah, R. (2011). Restaurant atmospherics elements: What the customer wants. *Journal of Asian Behavioural Studies*, *1*(2), 33-44.

Arnould, E., Price, L., & Zinkhan, G. (2005). *Consumers*. 2nd international edition. McGraw-Hill.

Barger, P. B., & Grandey, A. A. (2006). Service with a Smile and Encounter Satisfaction: Emotional Contagion and Appraisal mechanism. *Academy of Management Journal*, *49*(6), 1220-1238.

Batat, W. (2021). How augmented reality (AR) is transforming the restaurant sector: Investigating the impact of "Le Petit Chef" on customers' dining experiences. *Technological Forecasting and Social Change*, *172*, 121013.

Batz, C., & Tay, L. (2018). *Gender differences in subjective well-being.* In E. Diener., S. Oish. & L. Tay (Eds), Handbook of well-being. Salt Lake city, UT: DEF Publishers. DOI inobascholar.com.

Becker, D. A., & Ulstad, I. (2007). Gender differences in student ethics: are females really more ethical? *Plagiary: Cross-disciplinary Studies in Plagiarism, Fabrication, and Falsification*, 77-91.

Bem, I. (1981). The BSRI and gender schema theory: A reply to Spence and Helmreich. *Psychological Review*, 88,369-371.

Bitner, M. J. (1992). Servicescapes: the impact of physical surroundings on customers and employees. *Journal of Marketing*, *54*(2), 57-71.

Bitner, M. J., Faranda, W. T., Hubbert, A. R., & Zeithaml, V. A. (1997). Customer contributions and roles in service delivery. *International Journal of Service Industry Management*, *8*(3):193-205.

Brown, T. (2015). *Confirmatory factor analysis for applied research*. 2nd edition. New York, NY. Guilford Press.

Bryant, F. B., & Yarnold, P. R. (1995). Principal component analysis and exploratory factor analysis. In L. G. Grimm. & P. R. Yarnold (Eds.), *Reading and understanding multivariate statistics*, 99-136, Washington DC: American Psychological Association.

Burns, R. B., & Burns, R. A. (2008). *Business research methods and statistics using SPSS*. SAGE Publications Ltd, London.

Butcher, K., & Kayani, A. (2008). Waiting for service: modelling the effectiveness of service interventions. *Service Business*, *2*(2), 153-165.

Cheung, G. W., & Rensvold, R. B. 2002. Evaluating goodness-of-fit indixes for testing measurement invariance. *Structural equation modelling*, *9*(2), 233-255.

Child, D. (2006). *The essentials of factor analysis*. 3rd edition. New York, NY: Continum.

Fabrigar, l. R., & Wegener, D. T. (2012). *Exploratory factor analysis*. New York, NY: Oxford University Press.

Farrell, A. M., Souchon, A. L., & Durden, G. R. (2010). Service encounter conceptualisation: Employees' service behaviours and customers' service quality perceptions. *Journal of Management*, *17*(5-6), 577-593.

Fernandes, T., & Neves, S. (2014). The role of servicescape as a driver of customer value in experience centric service organisations: The Dragon football stadium case. *Journal of Strategic Marketing.*

Gal, D., Wheeler, S. C., & Shiv, B. (2007). Cross modal influences on gustatory perception. Effect of ambience on food intake and food choice. *Nutrition*, 20, 821-838.

Gentile, C., Spiller, N., & Noci, C. (2007). How to sustain the customer experience: An overview of experience components that co-create value with the customer. *European Management Journal*, *25*(5), 259-410.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tathan, R. L. (2014). *Multivariate Data Analysis*. Upper saddle River, NJ: Pearson Education.

Han, H. & Ryu, K. (2009). The role of the physical environment, price perception, and customer satisfaction in determining customer loyalty in the restaurant industry. *Journal of Hospitality and Tourism Research*, *33*(4), 487-510.

Harrington, R. J., Ottenbacher, M. C., Staggs, A., & Powell, F. A. (2012). Generation Y consumers: Key restaurant attributes affecting positive and negative experiences. *Journal of Hospitality and Tourism Research*, *36*(4), 431-449.

Haverila, M. J., Haverila, K. C., & McLaughlin, C. (2021). Gender-based behavioural segmenting of the cellphone youth market. *International Journal of Business Excellence*, *23*(1), 93-112.

Helkkula, A. (2011). Characterising the concept of service experience. *Journal of Service Management*, *22*(3), 367-389.

Holbrook, M. B., & Hirschmann, E. C. (1982). The experiential aspects of consumption: Consumer fantasies, feelings, and fun. *Journal of Consumer Research*, 9, 132-140.

Horng, J. S., & Hsu, H. (2021). Esthetic Dining Experience: The relations among aesthetic stimulation, pleasantness, memorable experience, and behavioral intentions. *Journal of Hospitality Marketing & Management*, *30*(4), 419-437.

Jang, S., & Namkung, Y. (2009). Perceived quality, emotions, and behavioural intentions: application of an extended Mehrabian-Russell model to restaurants. *Journal of Business Research*, *62*(4), 451-460.

Joiner, R., Dapkeviciute, L., Johnson, H., Gavin, J., & Brosnan, M. (2015). Two studies investigating gender differences in response to Facebook status updates. *Proceedings of the Nineth International AAAI Conference on Web and Social Media*, 622-625.

Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika*, *39*, 31-36.

Kim, Y. G., Eves, A., & Scarles, C. (2009). Building a model of local food consumption on trips and holidays: A grounded theory approach. *International Journal of Hospitality Management*, *28*, 423-431.

Kivela, J., Inbakaran, R., & Reece, J. (2000). Consumer research in the restaurant. Part 3: analysis, findings and conclusions. *International Journal of Hospitality Management*, *12*(1), 13-30.

Kotler, P., & Keller, K. L. (2016). *Marketing management*. Pearson Education Limited.

Kotler, P. (1973). Atmospherics as a marketing tool. *Journal of Retailing*, *49*(4), 48-64.

Lim, H. (2010). *Understanding American customer perceptions on Japanese food and services in the US.* Unpublished masters' thesis, University of Nevada, Las Vegas.

Lin, I. Y., & Mattila, S. (2010). Restaurant sevicescape, service encounter, and perceived congruency on customers' emotions and satisfaction. *Journal of Hospitality and Management*, 19, 819-841.

Lin, J. C., & Liang, H. (2011). The influence of service environments on customer emotion and service outcomes. *Managing Service Quality*, 21(4), 350-372.

Makudza, F. (2021). Augmenting customer loyalty through customer experience management in the banking industry. *Journal of Asian Business and Economic Studies (Emerald Insight), 28*(3), 191-203. https://doi.org/10.1108/JABES-01-2020-0007.

Makudza, F., Mugarisanwa, P., & Siziba, S. (2020). The effect of social media on consumer purchase behaviour in the mobile telephony industry in Zimbabwe. *Dutch Journal of Finance and Management, 4*(3), 17-28. https://doi.org/10.29333/djfm/9299.

Mathies, C., & Burford, M. (2011). Customer service understanding: gender differences of frontline employees. *Managing Service Quality*, *21*(6), 636-648.

Mattila, A. S. Grandey, A. A., & Fisk, G. M. (2003). The interplay of gender and affective tone in service encounter satisfaction. *Journal of Service Research, 6*(2), 136-143.

Meredith, W. (1993). Measurement invariance, factorial analysis and factorial invariance. *Psychometrika*, *58*, 525-543.

Meyer, C., & Schwager, A. (2007). Understanding customer experience. *Harvard Business Review*, *85*, 117-126.

Mhlanga, O., & Machingambi, S. (2016). The influence of demographic variables on customers' expectations in restaurants in the Eastern Cape Province of south Africa. *African Journal of Hospitality, Tourism, and Leisure*, *5*(2), 1-6.

Mhlanga, O., Hattingh, Z., & Moolman, H. J. (2015). Influence of demographic variables on customers' experiences in formal full-service restaurants in Port Elizabeth, South Africa. *Tourism*, *63*(2)143-460.

Mooney, S., & Gewinner, I. (2022). Gender in Marketing. In *Encyclopedia of Tourism Management and Marketing*. Edward Elgar Publishing.

My, N. H., Demont, M., & Verbeke, W. (2021). Inclusiveness of consumer access to food safety: Evidence from certified rice in Vietnam. *Global Food Security*, *28*, 100491.

Namkung, Y., & Jang, S. (2007). Does food quality really matter in restaurants? Its impact on customer satisfaction and behavioural intentions. *Journal of Hospitality & Tourism Research*, *31*(3), 387-410.

O'Leary-Kelly, S. W., & Vokurka, R. J. (1998). The empirical assessment of construct validity. *Journal of Operations Management*, 16, 387-405.

Parsa, H. G., Self, J. T., Njite, D., & King, T. (2005). Why restaurants fail. *Cornell Hotel and Restaurant Administration Quarterly*, *46*(3), 304-323.

Pine, B. H., & Gilmore, J. H. (1998). Welcome to the experience economy. *Harvard Business Review*, 97-105.

Radovic, D. (2018). Gender differences in Mathematics attainment in Chile. *Revisita Colombiana de Education*, *74*, 221-241.

Ramseook-Munhurrun, P. (2012). Perceived service quality in restaurant services. Global conference on business and finance proceedings, 630-643.

Ryu, K., Lee, H-R., & Kim, W. G. (2012). The influence of the quality of the physical environment, food, and service on restaurant image, customer perceived value, customer satisfaction, and behavioural intentions. International journal of *Contemporary Hospitality Management*, *24*(2), 200-223.

Saunders, M., Lewis, P., & Thornhill, A. (2016). *Research Methods for Business Students*. 5th edition. Prentice Hall.

Schiffman, L., Kanuk, L. L., & Kumar, S. R. (2011). *Consumer behaviour*. 10th edition. Prentice-Hall.

South, S. C., Jarnecke, A. M., & Vize, C. E. (2018). Sex differences in the Big Five Model personality traits: A behaviour genetics exploration. *Journal of Research in Personality*.

Spence, C., & Piqueras-Fiszman, B. (2012). Dining in the dark: why, exactly, is the experience popular? *The Psychologist*, *25*, 888-891.

Sukhu, A., & Bilgihan, A. (2021). The impact of hedonic dining experiences on word of mouth, switching intentions and willingness to pay. *British Food Journal*.

Sulek, J. M., & Hensley, R. L. (2004). The relative importance of food, atmosphere, and fairness of wait: the case of a full-service restaurant. *Cornell Hotel and Restaurant Administration Quarterly*, 235-247.

Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics*. 5th edition. Boston:Allyn and Bacon.

Thornton, S., Roy, D., Parry, S., LaLonde, D., Martinez, W., Ellis, R., & Corliss, D. (2022). Towards statistical best practices for gender and sex data. *Significance*, *19*(1), 40-45.

Upadhyay, Y., Singh, S. K., & Thomas, G. (2007). Do people differ in their preferences regarding restaurants? An exploratory study. *Journal of Business Perspective*, 11(2), 7-22.

Verhoef, P. C., Lemon, K. W., Parasuraman, A., Roggeveen, A., Tsiros, M., & Schlesinger, L. A. (2009). Customer experience creation: determinants, dynamics, and management strategies. *Journal of Retailing*, *85*(1), 31-41.

Vohlídalová, M. (2021). The segmentation of the academic labour market and gender, field, and institutional inequalities. *Social Inclusion*, *9*(3), 163-174.

Watkins, M. W. (2018). Exploratory factor analysis: A guide to best practice. *Journal of Black Psychology*, *44*(3), 219-246.

Wu, X. S., Yousif, L., Miles, A., & Braakhuis, A. (2022). A Comparison of Dietary Intake and Nutritional Status between Aged Care Residents Consuming Texture-Modified Diets with and without Oral Nutritional Supplements. *Nutrients*, *14*(3), 669.

Zaidi, Z. F. (2010). Gender differences in human brain: A review. *The Open Anatomy Journal*, *2*, 37-55.

Zikmund, W. G., & Babin, B. J. (2007). *Essentials of marketing research*. 3rd edition. South-Western Cengage learning.