

# Customer behaviour in restaurants before and during COVID-19: A study in Vietnam

Thao Hoang & Javed Suleri\* 

Hotel Management School, NHL Stenden University of Applied Sciences, Leeuwarden, The Netherlands

\*Correspondence: [javed.suleri@nhlstenden.com](mailto:javed.suleri@nhlstenden.com)

**ABSTRACT:** The foodservice industry is one of the fastest-growing industries in the world and it contributes to the development of the Vietnamese economy. However, with the appearance of COVID-19, this industry has been affected. The purpose of this study is twofold, to find out if there is a difference in customer behaviour before and during COVID-19, and to determine the most important factor that customers consider before and during their visit to a restaurant. To reach this aim, a quantitative method is conducted together with a snowball, and volunteer sampling method in which 117 people have participated from different age groups. The study found out that layout /design has the biggest influence on customer satisfaction and cleanliness is the factor that guests care about the most when choosing a restaurant to dine out. Additionally, safety regulations affect customer experience and their decision on restaurant selection. Moreover, delivery service is proved to continuously develop after the quarantine starts. Thus, restaurant managers are recommended to pay more attention to the cleanliness and safety regulations of the outlets during COVID-19. Regarding delivery companies, they should have competitive prices to attract more users.

**KEYWORDS:** cleanliness, customer satisfaction, hospitality industry, online delivery, restaurant selection

## Introduction

The food service industry is all the food and drink outlets, such as restaurants, coffee shops, pubs, clubs, bars, and accommodation venues. This industry has been recorded as growing significantly in recent years and is expected to continue this positive development in the future (MarketLine, 2019). It is one of the fastest growing industries in the world with an increasing demand for eating out, and it is contributing to global and national economic growth.

Focusing specifically on the Vietnamese market, it is considered "one of the fastest growing economies in Asia" (Vo, 2019, p. 2). In the same report, the figures show that the GDP increased by 6.2% in 2016 and showed a 7.1% growth over ten years in 2018 (ibid.). Together with the forward pace of its economy, the foodservice industry noted a considerable expansion in the past three years. Research done in 2016 in the three main cities in Vietnam, namely Hanoi, Ho Chi Minh City and Da Nang, concluded that the number of people going to restaurants is 340 million, contributing \$1.1 billion to the total revenue of the second quarter. Research from Vietnam Credit (2020) shows that the Vietnamese care most about food quality, whether it is tasty and attractive, when going to a food and drink outlet. Meanwhile, service quality achieves 45% and only 5% care about health factors even though it relates to the safety area. Moreover, when looking at the Vietnamese foodservice industry, the coffee shop market is an important outlet to

emphasise because it is never going to be redundant. Indeed, coffee shops are popping up like mushrooms all over the world, accounting for a large number of customers, and it promises to be a potential factor to national economic growth (Cekindo, 2020).

Nevertheless, with the appearance of COVID-19, the world has been severely affected. It is a global pandemic that has negatively influenced many aspects of life, resulting in the closure of borders of countries all over the world. As a result, the physical connection is temporarily lost. The hospitality industry has been notably affected. Restaurants and other outlets in the industry have been locked down due to the quarantine regulations aimed at preventing the spread of the coronavirus. Therefore, the whole industry has experienced a delay in its development. Before COVID-19, several pieces of research have stated that food quality, service quality and physical environment are the three main factors that affect customer behaviour when going to a restaurant, as mentioned above. However, Tiedt (2020) found that among all the elements which influence customer satisfaction, cleanliness has achieved the highest percentage during the pandemic. The rapid spread of COVID-19 has probably changed the main consideration of customers when going to a food or drink outlet based on health protection. Yu (cited in Dutta et al., 2014) states that customer satisfaction is when the customer goes back and recommends others to visit the place. As a result, it relates to the level of customer loyalty and future intentions. Furthermore, delivery has

become more common and has recorded a rise in demand due to home quarantines and distancing regulations.

Therefore, this study has been conducted in the Vietnamese foodservice market to emphasise and find out what factors affect customer behaviour, including customer satisfaction, customer loyalty and behavioural intentions, and how it has changed compared to before and during the COVID-19 crisis. Additionally, the study is also aimed at understanding whether both the delivery option and physical environment — especially cleanliness — have a role in determining these behaviours.

Dube et al. (cited in Dutta et al., 2014) mention that whether a customer will return to a restaurant depends on the satisfaction of their previous experience. Therefore, it is essential to know which elements will affect customer satisfaction the most during their customer experience when visiting a restaurant to eat. Recognising how customer behaviour has changed during the COVID-19 situation will enable restaurant managers to make suitable improvements to ensure customer satisfaction in this difficult time. Thus, they probably could enhance the brand image and attract more customers. The result can help to create recommendations for innovations and new policies according to the changes in customer behaviour. Consequently, this article focuses on what has changed in customer considerations before making decisions and during their visits.

The project decided to emphasise factors affecting customer satisfaction, including food quality, service quality, physical environment and delivery service. The following problem statement is formulated to learn if there are any changes: Finding out the differences between what affects customer behaviour in restaurants normally and during COVID-19 in Vietnam.

Four questions have been formulated to help answer this problem statement:

- Research question 1: What factor has the biggest influence on customer satisfaction and is it aligned with customer loyalty and behavioural intention?
- Research question 2: To what extent does the physical environment affect customer behaviour during COVID-19?
- Research question 3: How has customer behaviour towards online delivery changed during COVID-19?
- Research question 4: Is there a difference in customer behaviour when choosing a restaurant during COVID-19?

## Academic literature

### Food quality

Sulek and Hensley (cited in Marković et al., 2010) stated that among the factors of service quality, food quality, and physical environment, food quality is the most important concerning customer satisfaction. Food quality is an essential part of the whole restaurant experience which contributes to customer satisfaction and whether they will return to the restaurant (Namkung & Jang, 2007). Moreover, different research has the same result on the importance of food quality to how loyal customers are and to how they think about a brand (Marković et al., 2010). Similarly, food quality is believed to be one of the main components that influences the way customers value a place (Susskind & Chan, 2000). In the same report, they listed presentation, taste, freshness and temperature as the main elements for assessing food quality. Presentation is defined as how appealing the food's appearance is on the plate, and that can increase guest loyalty (Namkung & Jang, 2007). Taste and

freshness are also considered to be among those essential factors in determining food quality. Taste can affect customer satisfaction and the future potential for retaining customers (Péneau et al., 2006). Finally, together with taste, smell and sight, temperature creates the overall flavour for the meals and thus decides the positivity of guest satisfaction (Delwiche, 2004). Indeed, customers have become more demanding and, consequently, improving food quality is necessary now than ever for a restaurant's success.

### Service quality

Santouridis and Trivellas (cited in Al-Tit, 2015) point out that service quality is measured by the difference between customer expectation and experience when going to a restaurant. Service quality has become even more valuable when the number of restaurants recently increased dramatically (Hsieh et al., 2015). Furthermore, customer quality perception about a restaurant can be decided by how an employee delivers service to each customer (Ryu et al.; cited in Petzer & Mackay, 2014). In the end, this influences customer satisfaction, customer loyalty, and their future revisit decision for a restaurant (Petzer & Mackay, 2014).

Based on the SERVQUAL model, there are five attributes included in assessing a restaurant's service quality: *tangibility*, *reliability*, *responsiveness*, *assurance* and *empathy* (Nguyen et al., 2015). *Tangibility* is defined as the physical environment of the property. This will be discussed in the next part of this study. This part is focused on the other four dimensions of the SERVQUAL model. As stated by Kasapila (cited in Naude & Rudansky-Kloppers, 2016), the way to achieve these attributes is as follows. First, the accuracy in service delivered shapes the *reliability* of that restaurant, for instance, an accurate bill presented or food items served. Second, *responsiveness* is the time that customers need to wait to receive their orders, and the staff's willingness to answer any questions or solve any problems. It can be understood that the shorter the time, the better the solution, which leads to satisfied customers. Third, it is necessary for the restaurant staff to be equipped with a thorough knowledge and understanding of the menu. This leads to having good assurance; and therefore, the staff can recommend dishes depending on the preference and wishes of the customer. This is linked to the last attribute of having strong empathy. In a nutshell, each dimension plays an important role in bringing complete satisfaction in service quality to customers.

### Physical environment

An enjoyable and unique physical environment is a key element in deciding a restaurant's success (Canny, 2013). Together with maintaining the current number of customers, an attractive atmosphere can attract new ones. Additionally, the physical environment is a crucial advantage for restaurants when compared with their competitors (Hanaysha, 2016). Ryu and Han (cited in Hanaysha, 2016) said that people are more attracted to restaurants with an appealing appearance, resulting in more customers. Furthermore, a restaurant's physical environment can be measured by DINESCAPE — a scale for customers' perception of dining environments, with several dimensions, including *facilities*, *ambiance*, *layout*, *table settings* and *service staff* (Ryu & Han, 2011). As the restaurant market is more diverse with a fast-increasing number of properties, the facilities have become an essential factor in pre-purchase behaviour. The art of designing and arranging restaurant facilities can decide the

number of people visiting and how likely it is for them to go back (Cobe, 2007). This is aligned with what was written by Ryu and Jang (cited in Ryu & Han, 2011) in which the attractiveness of facilities can make a change in future customer behaviour. *Ambiance* relates to the invisible environment such as scent, music and temperature. A pleasant smell can raise a customer's feeling and comfort when having a meal and interacting with others (Ryu & Han, 2010). Similarly, background music has a notable influence on customer satisfaction and even on how they perceive a restaurant's tangibles (Magnini & Thelen, 2008). The lower the level of lighting, the more comfortable the guests are (Ryu & Han, 2011). Coming to the next factor, *layout* refers to how seats and other furniture are placed in a restaurant. It is claimed to have a noteworthy impact on customer experience as it decides the desired environment (Ryu & Han, 2011). *Table settings* is the last dimension and refers to how objects are placed on the table, including cutlery or any other decorative objects such as candles or flowers.

Additionally, Yuksel (cited in Josiam et al., 2014) showed that hygiene and cleanliness also contribute to the level of pleasure. It has been shown in a large number of papers that cleanliness is one of the contributors to how customers review restaurant quality, revealing the levels of customer satisfaction (Yoo, 2012).

#### **Delivery option**

Technological innovation and economic development go hand in hand and have positively affected many other fields. Specifically, in restaurant settings, online delivery is becoming more common. "Convenience is key" is an accurate sentence for this modern service where people can get food without stepping out of their homes. Several studies found that there is a close relationship between customer satisfaction and their potential behaviour because of its convenience and time saving potential (Yeo et al., 2017). It decreases the time and effort needed to buy a product, thus enhancing the service quality. Chorneukar (cited in Mohanapriya et al., 2020) discovered that customer satisfaction is now measured digitally. The delivery person's attitude, the food quality, and the waiting time will determine the level of satisfaction for the customer. It is based on the delivery person's attitude, food quality and the waiting time. These are predicted to be the most important factors for food delivery. Although COVID-19 has negatively impacted many aspects of life, it can be seen as an advantage for the delivery industry. Online market research by Asia Plus Inc. shows that among 75% of respondents who use online delivery apps, 25% started to use it during COVID-19 (Q&Me, 2020). Thus, this study is aimed at finding out if the demand for a delivery service has increased because of COVID-19.

#### **Customer satisfaction, customer loyalty and behavioural intention**

Customer satisfaction is achieved by meeting or exceeding customer expectations whenever going to a restaurant. In other words, it is the difference between expected service and experience. Customer satisfaction is defined by all the positive feelings when they leave after a visit, such as "happiness, acceptance, relief, delight, and pleasure" (Rahman et al., 2012, p. 9). Besides, customer satisfaction has become the most essential factor in deciding whether a business is profitable or not (Sabir et al., 2014).

Behavioural intention is directly affected by customer satisfaction (Baker & Crompton, 2000) and customer satisfaction has a strong influence in determining customer trust and potential behaviour (Hanaysha, 2016). Having the same opinion, Canny (2013) claimed that customer satisfaction is a determinant in business development as it affects whether a customer will decide to purchase a product twice, resulting in an advantageous or disadvantageous situation for a restaurant. Based on the level of satisfaction, a restaurant can forecast a customer's future purchase decisions. Customer loyalty is more likely to appear when a restaurant can gain more customer satisfaction, involving the repurchase intention and willingness to pay (Ryu & Han, 2011). To be clearer, customer loyalty leads to the positive spread of a restaurant's reputation by satisfied customers giving compliments to others.

#### **Restaurant selection**

Food quality has proved to be the most important factor when customers decide where to have a meal (Beard, 2020). Similarly, food quality, service and/or product quality together with ambiance are factors that play an essential role in determining customers' restaurant choices (Duarte Alonso et al., 2013). These authors also said that price and physical environment are the main contributors to customer decision-making. It can be said that atmosphere and style have become crucial and are what customers pay attention to when product type and quality delivered are similar. Lewis (cited in Kim & Chung, 2011) showed that food quality and atmosphere, which can also be understood as physical environment, are among the five factors determining where guests want to dine out. Likewise, the quality of food is the most crucial factor deciding customer choice regarding where to go for dining (Kim & Chung, 2011). It is again proved by Islam et al. (2018) that an appropriate service, physical environment and food quality are three out of four factors that restaurant selection depends on.

Along with factors related to the restaurant itself, restaurant selection is believed to also be affected by demographic factors such as age and gender. Kivela (cited in Duarte Alonso et al., 2013, p. 552) demonstrated that age is among the contributors to "the particular importance and/or order of preference". Moreover, while young customers do not consider food quality as the most important factor, customers above the age of 60 years do. The difference regarding gender is also recognised since male customers are "more utilitarian" when choosing a place (Kim & Chung, 2011, p. 3). Young customers care most about price, service quality and ambiance. These are factors determining their choice of having fast food at restaurants (Islam et al., 2018). These authors also point out that age and gender are two determinants for restaurant selection, between which the age difference is more influential. In short, this study aims to research how food quality, service quality, physical environment, or delivery options influence restaurant selection decisions and if gender creates any significant difference in this process.

#### **Conceptual model**

The conceptual model starts with food quality, service quality, the physical environment and delivery service, which are believed to be the main contributors to customer satisfaction. Among these, the first three dimensions are discussed in a lot of research, while delivery is becoming increasingly common

during the COVID-19 crisis. The better these elements are delivered, the higher the customer satisfaction is. As a result, customer behaviour, including customer loyalty and behavioural intention, is impacted. These factors have a close relationship with each other. Food quality, service quality and physical environment are also three dominant attributes of restaurant selection, together with customer demographics.

## Method

To examine our research question, we took a positivist philosophical stance. The quantitative survey method was applied to determine customer behaviour before and during COVID-19. A deductive and exploratory strategy was adopted to collect standardised data from a sizeable population. In this study, the non-probability volunteer sampling method was used because of the time and cost factors. There were different types of questions, based on multiple-choice and Likert scale questions. These diverse questions were used to gain insight into how a customer considers and reacts towards restaurant products and services. The survey was published online via Google Survey, which made it easier and faster to reach a large number of people and made it more convenient for respondents to access the survey. The population consists of Vietnamese people who have visited a restaurant or a coffee shop at least once. As a Vietnamese person, one of the authors was able to use their network to reach the largest possible number of people from different age groups. The Statistical Package for the Social Sciences (SPSS) version 27 was used to analyse the data. Descriptive measures including mean and standard deviations were chosen to find out what the most chosen answers were for several questions. Frequency tests were used to see the difference in customer behaviour and consideration before and during COVID-19. Additionally, chi-square was used to find the relationship between variables. Participants were asked before taking part in the survey whether they feel comfortable with giving their opinions for this study. The privacy of respondents was guaranteed as no personal information was recorded. The survey was distributed in two languages, English and Vietnamese.

## Results

Firstly, the characteristics of the participants are analysed. As can be seen in Table 1, out of 117 respondents, 77 were female, which accounts for 65.80%. Thus, 34.20% are male. The statistics indicate that more than half of the respondents are 18 to 24 years old. The data was collected from other age groups too, including people who were younger than 18 years old (5.10%), 25–34 years old (10.30%), 35–44 years old (11.10%), and older than 44 years old (15.40%). Respondents were asked if the outlet they went to was a coffee shop or a restaurant. Two-thirds of the answers were coffee shops (66.70%) and 33.30% were restaurants. This is also aligned with the reality of the hospitality market in Vietnam currently where going out for a coffee is starting to become more popular.

Table 2 compares how often customers used a delivery service before and during COVID-19. The majority of people used delivery one to three times per week (46.20%) during COVID-19 instead of once or twice per month (70.10%) as before. More people used it even more than three times per week, from 3.40% to 12.00%. The results show that respondents started to use delivery more when the pandemic appeared.

TABLE 1: Characteristics of the respondents involved in this study (N = 117)

Characteristics	n	%
Age		
<18 years	6	5.10
18–24 years	68	58.10
25–34 years old	12	10.30
35–44 years old	13	11.10
>44 years old	18	15.40
Gender		
Female	77	65.80
Male	40	34.20
Outlet type		
Coffee shop	78	66.70
Restaurant	39	33.30

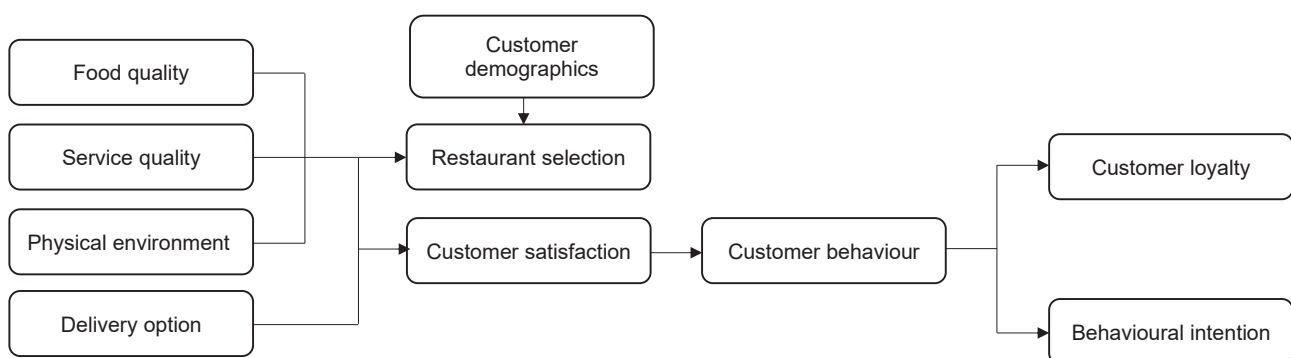


FIGURE 1: Conceptual model

TABLE 2: Delivery usage frequency before and during COVID-19 (N = 117)

Delivery usage frequency	Before COVID-19		During COVID-19	
	n	%	n	%
Once or twice per month	82	70.10	49	41.90
1-3 times week	31	26.50	54	46.20
> 3 times per week	4	3.40	14	12.00

Table 3 shows the extent to which customers agree with the statement of "I started using the delivery app only after the quarantine had started". All the respondents who chose "Slightly agree" (16.2%), "Agree" (24.8%), and "Strongly agree" (10.3%) liked the statement and there were 51.6% who only started using delivery apps after the quarantine had started.

Table 4 presents a descriptive test calculating the frequency of each factor before COVID-19 and during COVID-19, showing how it changed with respect to customer behaviour. It can be seen that before COVID-19, people cared most about product quality when choosing a restaurant to visit, accounting for more than half of the answers (58.1%), while during COVID-19, the most chosen factor is cleanliness (46.2%). From being the least important aspect before the pandemic, cleanliness became the most important one. This shows how much COVID-19 has influenced customer decisions.

Table 5 shows that almost 73% of respondents chose coffee quality over interior design.

TABLE 3: Delivery usage after quarantine started (N = 117)

Delivery use	"I started using the delivery app only after the quarantine had started"	
	Frequency	%
Strongly disagree	29	24.8
Disagree	12	10.3
Slightly disagree	16	13.7
Slightly agree	19	16.2
Agree	29	24.8
Strongly agree	12	10.3

TABLE 4: Factors that guests cared the most about when choosing an outlet before and during COVID-19 (N = 117)

Factors	Before COVID-19		During COVID-19	
	Frequency	%	Frequency	%
Product quality	68	58.1	42	35.9
Service quality	18	15.4	16	13.7
Interior design	18	15.4	5	4.3
Cleanliness	13	11.1	54	46.2

TABLE 5: Comparing well-decorated coffee shop with a sidewalk/pavement coffee shop (N = 117)

Between a well-decorated coffee shop with poorer coffee quality and a sidewalk/pavement coffee shop with good coffee quality, I will choose	Frequency	%
	Sidewalk/pavement coffee shop	85
Well-decorated coffee shop	32	27.4

Regarding the physical environment in this study, research focused mainly on cleanliness and other existing safety regulations. Table 6 shows how customers agree on different statements about how they pay attention to these factors when going to a restaurant.

Almost every question scored higher than 5 and the other two are only just below 5. This is aligned with the results shown in Table 4 where cleanliness is chosen to be the factor that guests care about the most during COVID-19 (46.2%). To conclude, people pay considerable attention to cleanliness and other safety regulations when going to or choosing a restaurant during COVID-19.

Table 7 presents to what extent people agree with different statements regarding delivery options during COVID-19.

To the question of "I started using the delivery app only after the quarantine had started" (M = 3.37, SD = 1.75), most people disagreed with this, meaning that the delivery app had been used before COVID-19. In Table 8, the availability of delivery options affects customer preferences but does not decide if they want to choose the outlet or not. To conclude, people started to use delivery apps more frequently during COVID-19, some even only started to use it after COVID-19 appeared. However, the number

TABLE 6: Customer behaviour towards cleanliness in a restaurant during COVID-19 (N = 117)

Customer attention to different factors when coming to a restaurant	Mean	Std. deviation
I really pay attention to the cleanliness of the place I choose BEFORE COVID-19	5.03	0.93
I really pay attention to the cleanliness of the place I choose DURING COVID-19	5.43	0.80
I care about cleanliness the most during COVID-19, rather than food quality, service quality and physical environment	4.9	1.07
During COVID-19, I feel safer if there are solutions to prevent the spread of COVID-19 (disinfect hand gel, one-metre distancing, employees wearing face masks)	5.31	0.91
During COVID-19, existing safety regulations at the outlet decide if I want to go there or not	5.01	0.96
During COVID-19, I decide not to go to that outlet if I see/feel that it is going to be crowded (spreading of COVID-19)	4.71	1.17

TABLE 7: Customer behaviour towards delivery option during COVID-19 (N = 117)

Customer behaviour towards delivery option	Mean	Std. deviation
I use the delivery app more frequently during COVID-19	4.82	1.18
I started using the delivery app only after the quarantine had started	3.37	1.75
I prefer outlets which have delivery service more than others during COVID-19	4.48	1.38
A delivery option decides if I want to choose that outlet or not	3.5	1.46
A delivery option starts to be one of the factors deciding my overall satisfaction after COVID-19 appeared	4.16	1.3

TABLE 8: Interior design and a delivery option in restaurant selection (N = 117)

Factors affecting customer preferences	Mean	Std. Deviation
Interior design is the first thing I look at when choosing a restaurant	4.56	1.08
I care about interior design rather than coffee quality when choosing a coffee shop to try	3.78	1.46
During COVID-19, existing safety regulations at the outlet decide if I want to go there or not	5.01	0.96
I prefer outlets which have a delivery service more than others during COVID-19	4.48	1.38
A delivery option decides if I want to choose that outlet or not	3.5	1.46

is not that significant. Nevertheless, the increase in delivery usage makes it one of the factors deciding overall customer satisfaction.

Table 8 shows people's agreement with different statements about different factors when it comes to choosing a restaurant, including interior design, safety regulations and a delivery option. Interior design and safety regulations belong to the physical environment.

Looking back at the survey, it can be concluded that interior design is the first thing that customers look at when making a decision. During COVID-19, a delivery option started to determine customer preferences. However, the last statement of "A delivery option decides if I want to choose that outlet or not" ( $M = 3.5$ ,  $SD = 1.46$ ) illustrates a slight disagreement, from which it can be understood that even though customers might prefer outlets which have a delivery service more than others during COVID-19, the availability of a delivery option does not decide their restaurant choice. In other words, it does not have that big an influence on the restaurant selection process.

Together with Table 5, the statement of "I care about interior design rather than coffee quality when choosing a coffee shop to try" ( $M = 3.78$ ,  $SD = 1.463$ ) shows customer considerations in terms of choosing a coffee shop. Having a mean of 3.78, it is seen by the majority of people that interior design plays an important role when choosing a coffee shop to try. Nevertheless, Table 5 shows that almost 73% of respondents chose coffee quality over interior design. All in all, interior design might determine a customer's decision to try a coffee shop, but to maintain the visit frequency, coffee quality is the fundamental factor.

It can be seen that the physical environment has the strongest relationship to the overall guest satisfaction ( $r = 0.39$ ,  $p < 0.01$ ), and its sub-dimension — layout has the highest correlation among all variables ( $r = 0.41$ ,  $p < 0.01$ ). Other variables under the physical environment also have strong relationships with guest satisfaction including the facilities and interior design ( $r = 0.35$ ,  $p < 0.01$ ), ambiance ( $r = 0.37$ ,  $p < 0.01$ ) and cleanliness ( $r = 0.31$ ,  $p < 0.01$ ). Product quality is seen to have the weakest relationship with guest satisfaction among all the variables ( $r = 0.23$ ,  $p = 0.01$ ). All of its sub-dimensions are also among the lowest: presentation ( $r = 0.28$ ,  $p = 0.02$ ), taste ( $r = 0.27$ ,  $p = 0.03$ ), freshness ( $r = 0.18$ ,  $p = 0.05$ ) and temperature ( $r = 0.19$ ,  $p = 0.03$ ).

Table 10 shows that there are significant relationships between guest recommendation decision ( $r = 0.52$ ,  $p < 0.01$ ) and guest returning decision ( $r = 0.65$ ,  $p < 0.01$ ) with overall guest satisfaction, especially their returning decision as its

TABLE 9: Correlation of variables with overall guest satisfaction (N = 117)

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1 Presentation																	
2 Taste	0.726**																
3 Freshness	0.720**	0.757**															
4 Temperature	0.782**	0.732**	0.836**														
5 Overall product quality	0.766**	0.868**	0.826**	0.820**													
6 Tangibles	0.684**	0.623**	0.558**	0.608**	0.649**												
7 Responsiveness	0.588**	0.560**	0.618**	0.653**	0.632**	0.645**											
8 Assurance	0.597**	0.621**	0.598**	0.642**	0.675**	0.573**	0.715**										
9 Empathy	0.521**	0.470**	0.519**	0.565**	0.568**	0.573**	0.759**	0.716**									
10 Overall service quality	0.630**	0.628**	0.555**	0.610**	0.666**	0.707**	0.840**	0.809**	0.793**								
11 Facility and interior design	0.675**	0.541**	0.540**	0.607**	0.620**	0.757**	0.614**	0.519**	0.503**	0.602**							
12 Ambiance	0.625**	0.534**	0.516**	0.577**	0.631**	0.662**	0.624**	0.592**	0.575**	0.633**	0.817**						
13 Layout	0.668**	0.526**	0.516**	0.575**	0.609**	0.732**	0.617**	0.572**	0.537**	0.604**	0.850**	0.851**					
14 Table settings	0.718**	0.518**	0.545**	0.650**	0.577**	0.659**	0.596**	0.577**	0.537**	0.554**	0.761**	0.764**	0.798**				
15 Cleanliness	0.630**	0.606**	0.552**	0.566**	0.654**	0.707**	0.708**	0.605**	0.603**	0.681**	0.758**	0.785**	0.788**	0.696**			
16 Overall physical environment	0.713**	0.600**	0.592**	0.655**	0.675**	0.720**	0.697**	0.607**	0.568**	0.646**	0.847**	0.845**	0.858**	0.780**	0.861**		
17 Overall guest satisfaction	0.285**	0.273**	0.185*	0.199*	0.232*	0.350**	0.236*	0.207*	0.389**	0.313**	0.347**	0.370**	0.408**	0.280**	0.508**	0.393**	

Note: \* $p < 0.05$ ; \*\* $p < 0.01$

relationship is considered to be strong ( $r = 0.65, p < 0.01$ ). It can be concluded that the higher the guest satisfaction is, the more likely they are to go back and recommend the restaurant to others.

Table 11 presents the correlation of different delivery option sub-dimensions with overall delivery satisfaction.

The relationship is strong between each sub-dimension and overall delivery satisfaction. It can be understood that price has the strongest relationship to the overall delivery satisfaction ( $r = 0.87, p < 0.01$ ). The weakest relationship belongs to the delivery person's attitude ( $r = 0.79, p < 0.01$ ). Overall, every sub-dimension is considered to have a strong relationship to the overall delivery satisfaction.

The results show that there is no significant relationship between gender and the factor that guests care about the most when choosing a restaurant, in other words, gender does not affect guests' decision,  $\chi^2(3, N = 117) = 1.59, p = 0.66$ . Table 12 presents how different it is between females and males when making a restaurant selection.

Both genders pay the most attention to product quality and cleanliness, yet, while females pay more attention to cleanliness (48.10%), this percentage of product quality and cleanliness is equal for males (42.50%). Interior design received the least attention when choosing a restaurant for both genders. It was chosen by three females, accounting for 3.90%, and two males, accounting for 5%.

The results shows that there is a significant relationship between age and the factor that guests care about the most when choosing a restaurant, in other words, age affects guests' decision,  $\chi^2(12, N = 117) = 23.02, p = 0.03$ . Table 13 shows how

different age groups consider different factors when choosing a restaurant during COVID-19.

The 18-24-year-old group and being older than 44 years are the two biggest age groups that participated in this study. They also represent two generations. Both age groups pay more attention to the cleanliness and product quality of the restaurant. While people from 18 to 24 years old care more about cleanliness (44.10%), people who are older than 44 years old care more about product quality (44.40%). Looking at the table, interior design is not taken into consideration when choosing a restaurant for almost every group except for those who are under 18 years old where people pay equal attention to every factor.

In conclusion, cleanliness and product quality are the most important factors for customers when choosing a restaurant and interior design is not that essential, regardless of age or gender.

### Discussion

#### *What factor has the biggest influence on customer satisfaction and is it aligned with customer loyalty and behavioural intention?*

The objective of this study was to find out what factors affect customer behaviour, including customer satisfaction, customer loyalty and behavioural intention. The results indicate that the physical environment has the biggest influence on guest satisfaction, among which layout has the highest relationship with  $r = 0.41$ . This is similar to what has been found by Ryu and Han (2011), i.e. that layout has a noteworthy impact on guest satisfaction. Meanwhile, food quality is found to have the least

TABLE 10: Correlation of variables with overall guest satisfaction (N = 117)

Variable	Correlation
Guest recommendation decision	0.52*
Guest returning decision	0.65*

\* $p < 0.01$

TABLE 11: Correlation of delivery option variables with overall delivery satisfaction (N = 117)

Variable	Correlation
Delivery person attitude	0.79*
Food quality	0.85*
Waiting time	0.81*
Price	0.87*

\* $p < 0.01$

TABLE 12: Comparing gender with a factor that guests care about the most when choosing a restaurant during COVID-19 (N = 117)

A factor that guests care about the most when choosing a restaurant during COVID-19 * gender cross-tabulation	Female	Male
Product quality	25 32.50%	17 42.50%
Service quality	12 15.60%	4 10.00%
Interior design	3 3.90%	2 5.00%
Cleanliness	37 48.10%	17 42.50%

TABLE 13: Comparing age and the factor that guests care about the most when choosing a restaurant during COVID-19 (N = 117)

A factor that guests care about the most when choosing a restaurant during COVID-19 * age cross-tabulation	< 18 years old	18-24 years old	25-34 years old	35-44 years old	> 44 years old
Product quality	2 33.30%	26 38.20%	1 8.30%	5 38.50%	8 44.40%
Service quality	0 0.00%	9 13.20%	1 8.30%	3 23.10%	3 16.70%
Interior design	2 33.30%	3 4.40%	0 0.00%	0 0.00%	0 0.00%
Cleanliness	2 33.30%	30 44.10%	10 83.30%	5 38.50%	7 38.90%

impact on guest satisfaction when going to a restaurant when compared to service quality and physical environment. This contrasts with some previous research where food quality was stated to be the most important factor deciding guest satisfaction (Marković et al., 2010). Freshness and temperature were considered to be among the most essential factors when determining food quality, thus, affecting customer satisfaction and customer loyalty (Delwiche, 2004; Péneau et al., 2006). However, this study shows that these are two factors that have the least influence on guest satisfaction. Furthermore, although it was found by Petzer and Mackay (2014) that service quality decides customer loyalty and their future intention, it has only the second-highest correlation ( $r = 0.31$ ) regarding the three elements and is lower than several sub-dimensions. Hanaysha (2016) mentioned that restaurants with an appealing appearance will be more attractive, thus increasing guest satisfaction. This is aligned to the findings where facility and interior design are also among the highest correlations ( $r = 0.35$ ). Ambiance has a strong relationship to guest satisfaction ( $r = 0.37$ ) and this is aligned with previous research which mentioned that background music has a significant impact on guest satisfaction.

The results show that there is a significant relationship between customer satisfaction and customer loyalty as well as between customer satisfaction and behavioural intention. This aligns with several pieces of research in the past which claim that customer satisfaction has a direct influence on customer repurchase intention (Baker & Crompton, 2000; Canny, 2013; Hanaysha, 2016) and it leads to higher customer loyalty (Ryu & Han, 2011).

#### ***To what extent does the physical environment affect customer behaviour during COVID-19?***

Another purpose of this study was to understand whether the physical environment, especially cleanliness, has a role in determining customer behaviour during COVID-19, as it can be seen in reality that people have started to care more about cleanliness and safety regulations when going to a restaurant after the pandemic started. The results pointed out that 46.2% of the respondents care a lot about cleanliness when they choose a restaurant to visit. The majority agrees that they pay attention to the cleanliness of the places they choose to visit during COVID-19. Moreover, safety regulations are proven to be essential in deciding if they want to go to the outlet, and they admitted that they feel safer if there are efficient safety regulations at the outlet. This is similar to previous research which indicates that hygiene and cleanliness also contribute to the levels of satisfaction (Josiam et al., 2014). In addition, cleanliness is an essential factor when customers assess restaurant quality (Yoo, 2012). This also proves that Tiedt (2020) was right when mentioning that cleanliness is the biggest influence on customer satisfaction during COVID-19 compared to other factors. Indeed, during COVID-19, customers care more about their health and also want to prevent the spread of coronavirus. Thus, it is understandable that cleanliness has started to be an important factor that they consider when going to a restaurant.

#### ***How has customer behaviour towards online delivery changed during COVID-19?***

The third objective of this research was to find out if online delivery contributed to customer behaviour during COVID-19

when it became more popular once the quarantine started. Mohanapriya et al. (2020) mentioned that the delivery person's attitude, food quality and waiting time are three factors that decide overall delivery satisfaction. However, the results indicate that price has the biggest influence of these three variables. The findings show that people started using delivery more during COVID-19. Before COVID-19, 70.10% of respondents only used it once or twice per month, however, during the pandemic, the majority used it one to three times per week (46.2%). While Q&Me (2020) concluded that 25% of the respondents who use delivery apps only used them after COVID-19 appeared, the number in this study is 51.6%. This is the reality of the increasing demand for online delivery during COVID-19.

#### ***Is there a difference in customer behaviour when choosing a restaurant during COVID-19?***

This study also aimed to find out differences in customer behaviour before and during COVID-19. In this case, it was in their restaurant selection process. The results indicate that before COVID-19, 58.1% of respondents saw product quality as the most important factor when choosing a restaurant. This is the same in several pieces of research which state that food quality is the most essential factor (Auty, 1992; Sulek & Hensley, 2004; Namkung & Jang, 2007; Kim & Chung, 2011). However, during COVID-19, cleanliness took over from product quality and became the most important factor, accounting for 46.2%. This is aligned with Tiedt's (2020) findings which mentioned that cleanliness has the highest percentages when deciding guest satisfaction. It can be concluded that cleanliness must be given more attention during the pandemic to attract more customers.

Age and gender play an important role in determining customers' restaurant choices and there is a significant difference among age groups. The results lead to the same conclusion. There is a small difference in the percentages of what customers care about the most when choosing a restaurant between two genders. However, both genders cared most about product quality and cared least about interior design during COVID-19. However, the difference is clearer among age groups. While 44.10% of people from 18–24 years old and 83.30% people from 25–34 years old cared about cleanliness, the majority of people who were older than 44 years cared more about product quality (44.40%). Kim and Chung (2011) have said that young customers do not consider food quality as the most important factor, but people who are older than 60 years old do. This similarity appears here as the old people usually pay more attention to the product quality of what they receive when spending their money.

#### **Limitations, future directions, and conclusions**

Some limitations that influenced the final result were recognised during the research. The sampling method gave the researchers an easy and low-cost connection to the respondents. However, people had the right to choose if they wanted to participate. As a result, some decided to respond and some did not. Furthermore, based on the age and networks of the Vietnamese researcher, there were more respondents from the younger age group, creating an imbalance among age groups. Consequently, the number of respondents was not as large as expected ( $N = 117$ ) and mainly focused on people from 18–24 years old.



In conclusion, restaurant owners should pay more attention to cleanliness and other safety regulations during COVID-19. As customers will feel safer if this is true, higher satisfaction is expected and more customers will visit. The layout and interior design is another factor to focus on to attract new customers. Yet, product quality cannot be forgotten to increase customer loyalty. It can be assumed that paying attention to both interior design and product quality can lead to huge success for restaurants in Vietnam. In terms of delivery service, companies need to have competitive prices as this has the biggest relationship to the overall delivery satisfaction and it is believed to be the reason Vietnamese customers choose which brand they would like to use.

The outcomes of this study show that layout and physical environment have the biggest influence on customer satisfaction and they affect customer loyalty and their behavioural intentions in future purchases. They also have a close relationship with customer recommendation decisions. During the pandemic, cleanliness appears to be the factor that customers care about the most, even above food quality, service quality or interior design. In addition, customers have started to care if there are safety regulations at the outlet. Examples include disinfectant hand gel before entering the restaurants, maintaining a one-metre distance or wearing masks. Furthermore, delivery service is becoming more popular and developing during COVID-19, with more users and higher frequency of use. It can be established that due to the reality of staying at home and in quarantine people have an increasing demand for ordering food for delivery at home. In short, COVID-19 has brought some changes in customer behaviour when choosing and visiting a restaurant. This mainly focuses on the restaurant's physical environment, where the layout is proved to be the most important factor for customer satisfaction and cleanliness is the most cared about when choosing a restaurant to visit.

Furthermore, some additional findings appeared during the research which can be helpful for the development of coffee shops. Interior design was agreed to be the first thing that customers pay attention to when they visit a new coffee shop. Nonetheless, to maintain the number of customers visiting, the coffee quality is found to be the most important factor, as people are still willing to go to the sidewalk/pavement coffee shop even though there is no attention paid to the interior design. To obtain a larger response, we suggest that the survey can also be distributed manually, reaching more people from different age groups, genders and backgrounds.

## ORCID iDs

Javed Suleri — <https://orcid.org/0000-0001-9111-7674>

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