Changes in Consumption Habits in Restaurant Diners before and during the COVID-19 Pandemic, in Cancun, Quintana Roo

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Abstract

Diverse factors can influence consumers' purchase intention leading them to change their consumption habits. The COVID-19 disease has influenced the population's behavior patterns, lifestyle changes, and food consumption impacting the restaurant sector. This research is a non-experimental, cross-sectional with a quantitative approach. The correlational scope proved the association and variability referring to the consumption habits of diners in Cancun, Quintana Roo, showing the changes that defined this population before and during the pandemic. Significant variations showed up: the average group size for eating out during labor days leads to an estimate of a decrease of 44.1% in weekly income for restaurants derived from group behaviors. In their habits with friends and family, this same variable decreased by 56%.

Keywords: Diners' consumption habits, purchase intention, Cancun restaurants, COVID-19 in the restaurant industry

1. Introduction

The world has been affected by pandemics since 1580. At least four influenza ones occurred in the 19th century and three in the 20th century (Howard, 2020). Mexico has not been the exception to these crises, registering two crucial moments as the one caused by the SARS-CoV-2 coronavirus, from 2019 to date, and the previous one due to the H1N1 virus, between 2009 and 2010 (Comisi ón Econ ómica para Am érica Latina y el Caribe [CEPAL], 2010).

The pandemic caused by AH1N1 swine flu, caused by the H1N1 virus, brought with it some adjustments in different sectors of the country such as prevention and social distancing temporary closure of religious centers, sports stadiums, theaters, cinemas, restaurants, bars, nightclubs, and educational centers. Besides, it brought health surveillance at airports, suspension of activities in the Federal Public Administration, except for those that guarantee the opportunity, sufficiency, and continuity in supplying these services, and suspension of non-essential work in the productive sectors.

The private sector announced, for its part, the adoption of similar measures for the temporary closure of activities. Prevention and control guidelines were also implemented for restaurants, public transport, and other work centers (CEPAL, 2010). Each measure was reinforced more in some states than in others to prevent the spread of the virus.

Among the quantified effects at the national level were the total number of confirmed cases of infection was 70,715 people and 1,172 deaths (Gonz aez, 2020); the economic impact was 6,368 million of USD in losses, equivalent to 1% of the value of the Gross Domestic Product (GDP) in unemployment. The loss in tourism was 2,382.3 million USD, and in the restaurant sector, it was 626.7 million USD. In Quintana Roo, the second most affected state due to its dependence on tourism as a productive activity, the economic impact was 7.7% of its state GDP, totaling a loss of 730.7million USD (CEPAL, 2010).

The earlier scenario may seem like the current one, where the fight against COVID-19 continues. Prevention and control decisions for health taken so far have been more drastic and for a longer time (already more than a year

and a half, as of March 2020, and it is not over yet). The global impact of the pandemic has been rapid and extensive. Although it has had moments of decline to different degrees, it has affected all social strata, both in rich countries and in emerging and developing countries (Serrano-Cumplido, et al., 2020).

Projections of the Economic Commission for Latin America and the Caribbean (ECLAC) estimate that in 2022 Latin America and the Caribbean will grow only 2.9% on average due to the slowdown concerning the rebound of COVID-19 in 2021. The structural problems that arise living in this region, to which Mexico also belongs, limit their growth, favoring a per capita drop in income (Urbaneja, 2020). In the history of this country, this health crisis is unprecedented since, at the national level, it already records unemployment of 2.3 million people (until May 2021).

The decrease in the tertiary sector was 1.1% between the first quarter of 2020 and 2021, to which belong the activities of restaurants and accommodation services (which decreased 0.9%). In absolute terms, the economic units belonging to this sector employed 1.9 million fewer people concerning these two quarters (2020-2021). On the other hand, the activity of restaurants and accommodation services unemployed 656 thousand people in this period (Instituto Nacional de Estad ítica y Geograf í [INEGI], 2021c).

The restaurant industry is recognized for its contribution to the national tourism GDP, of which it represented 15.3% in 2019 (Secretar á de Turismo [SECTUR], 2019). In 2018, the approximate benefits were \$12 billion USD (1.1% of GDP in 2018, 1.3% for 2019) (INEGI, 2021d; SECTUR, 2019).

In Quintana Roo, the impact on the tourism industry was reflected in a loss of \$3,500 million USD (Animal Politico, 2021; Expansion Revista Digital, 2021; Infobae, 2020). Cancun, located in Benito Juarez, one of the eleven municipalities of this State, whose predominant economic activity is oriented to the services of accommodation and preparation of food and beverages (F&B) with a representation of 22% of its employed population during the first quarter of 2021 (INEGI, 2021a), reported a job unemployment rate of 10.9% due to the low demand of the tourist destination (INEGI, 2021b). Once the epidemiological traffic light allowed the reopening and in-place service, 25% of Cancun's micro and medium restaurant companies could not open again (V ázquez, 2020).

The actions that have been implemented in cases of a pandemic by the Mexican government, both nationally and locally, may have affected specific sectors. In the restaurant sector of Cancun, concerning AH1N1 there are no detailed measurements of the adverse effects that these actions implied on the consumption or local demand. However, in COVID-19 it is still possible to collect valuable information for decision-making for the restaurants recovering today and generate reliable and valuable evidence for similar future events (sanitary crises) that are out of management control.

COVID-19 pandemic presents new challenges to restaurants about consumption habits that existed before, that have existed during, and those that are expected after the health crisis (Reyes, 2020). Before COVID-19, diners primarily looked at two things when choosing a restaurant: availability and price. In addition, healthy food, vegan, ecological, homemade dishes made with local ingredients were in trend, which was related to the price valuation based on the offer's quality (El Tenedor by the Fork, 2019).

According to Njite, Dunn, and Hyunjung (2008), there are factors influencing consumers' purchase intention even changing their consumption habits. These habits form the free decision that everyone must choose the products, services, and activities to consume until they become habit patterns, either individual or group. The motivations for eating out can include hunger, social image, health, hedonic and atmospheric value, well-being, celebration, socialization, convenience, natural concerns, traditional food, price, affective regulation, take-out food, and habits (Kwun, Hwang, & Kim, 2013).

Consumption habits are the key to meeting and satisfying the needs of a consumer's routine. This consumer is influenced by external and internal factors in the purchase decision process (Schiffman & Kanuk, 2010). Today, the fear caused by contracting the virus during the pandemic joins to the impacts on changes in habits, physical distancing, loss of employment, and others, causing radical changes in the individual's behavior. Pan American Health Organization (PAHO) and the Organization World Health Organization (WHO) recognized fear, worry, and stress as normal responses of the human being during this COVID-19 pandemic. It is because of uncertainty, crisis, and changes (Organización Panamericana de la Salud [OPS], 2021).

Having exact information on changes in customers' consumption habits in restaurants enables them to design strategies to motivate their consumption. These strategies can be oriented to those clients who stopped attending, reduced their consumption, and even those who do not have a future purchase intention. In a town such as Cancun, a city in the Mexican Republic where it is predominant accommodation services and F&B preparation

activities as one of the principal economic activities (22.7% average from 2019 to date), according to national occupation and employment survey in Mexico (INEGI, 2019a; INEGI, 2020b; INEGI 2021c), it has even more importance.

In this context, this research aims to compare the restaurant customers' consumption habits before and during the COVID-19 pandemic in Cancun, from October 2020 to February 2021. In this study, the variable of consumption habits is analyzed in four dimensions; the individual behavior of the client about consumption in restaurants is named: during labor days (LD), with friends and family (FF), and for moments of socialization. Likewise, the leading causes and motivators that generate greater or lesser confidence in the current and potential local diner are reviewed.

2. Literature Review

2.1 Previous Research of Sanitary Crisis in Restaurants in Mexico

During the H1N1 pandemic, various economic losses were estimated in the Mexican restaurant industry. The vice president of the C ámara Nacional de la Industria de Restaurantes y Alimentos Condimentados (CANIRAC, National Chamber of the Restaurant and Seasoned Food Industry) declared that the decline in this industry could reach 3.5% one year after the health crisis began in 2009, and a total recovery growth would occur until 2012; however, the decrease was 17% in that year, and the monetary loss in 2010 reached 125 million USD (Notimex, 2010).

In 2014, a national market study interviewed 5 000 people in México between 25 to 65 years old to analyze restaurant diners' habits, tastes, and preferences. In this study, the respondents were asked about their preference for the place to consume prepared food and beverages, the most frequent type of service used, preferred type of food, factors that influenced their purchase intention, and their average spending on food consumption during the week. Those who showed that they preferred to go out to a restaurant were 67.5% (Mercawise, 2014).

In a study conducted by the CANIRAC, it was mentioned that the economic impact caused by the COVID-19 pandemic cannot yet be predicted. However, when analyzing the consumption trend of diners, pointed out that home delivery has increased the income of establishments by up to 25%. For this reason, the assumption was that the restaurants that would suffer the most significant loss would be the luxury ones due to the decrease of up to 80% in the average check (Vargas & Brennan, 2020).

According to Google data in its report "Mobility changes," since March 2020, a 45% decrease has been registered in Mexico in visits to restaurants, coffee shops, shopping centers, among other places, which has caused a 60% reduction in average spending (Konf 6, 2021).

2.2 Consumption Habits

Consumer behavior is perceived through the process they develop while looking for, using, or discarding a product that will satisfy their needs (Schiffman & Kanuk, 2010). During the decision-making process of purchasing, it is possible to identify what, where, how, how much, when, why to buy, and in which way costumer is influenced by his context: cultural (e.g., culture, subculture), social (e.g., reference group, family), personal (e.g., age, occupation, lifestyle), psychological (e.g. motivation, perception). Together, these characteristics stand for the buyer's behavior model (Armstrong & Kotler, 2008).

Consumption habits consist of the free decision that each person makes when choosing the products, services, and activities they wish to consume, becoming in habit patterns individually or in groups (Njite et al., 2008).

Diners' reviews are one reason to stop consuming in a restaurant, which are based on the experience during the visit to the establishment (Coquillat, 2020). Likewise, the threat that the customer perceives when making the decision to consume in a restaurant in times of pandemic is through the attitude or service offered in the establishment (Kim & Lee, 2020). Among the factors that shape the customer expectations are that the environment is clean and comfortable (Tuncer et al, 2020).

Additionally, the consumer's association with factors such as environment, price, attention, and diversity in the menu allows seeing a frequency of consumption in the establishment where these characteristics are found (Njite et al., 2008). Additionally, components of the service contribute to the well-being (health, nutrition, tranquility), and characteristics that influence the decision-making determine consumption habits (Ares, et al., 2013; Peters & Remaud, 2020).

Regarding the decisions of the management of the restaurants, they must be aware that consumer behavior will depend on the pleasure of eating and future goals on health. Besides, they should consider factors of individual difference (e.g., age, education, income, and even personality), which influence intertemporal preference and

decision-making in consumer habits (Gal, 2019).

Currently, consumption habits are based on the consumer's personality traits, time available, perspective, and health habits (Nystrand et al., 2020). This form of consumer attitudes and attachment to different attributes with different weights have implications for specialists to formulate the best strategies for perceiving a restaurant through its environment, employees, products, location, prices, and others. Hence, the restaurant, product, or brand need to understand consumers' attitudes of value (Njite et al., 2008).

2.3 Contextual Framework

2.3.1 COVID-19 in Numbers

The World Health Organization (WHO) classifies the global spread of a new disease as a pandemic (Fauci et al., 2020). For its official declaration, two criteria must be met: that the epidemic outbreak affects more than one continent and that the cases in each country are no longer imported but caused by community transmission (Pulido, 2020).

In 2020, a third of the world's population was subject to social distancing measures, intending to prevent the spread of the severe acute respiratory syndrome: coronavirus (SARS-CoV-2), better known as COVID-19 (Organización Mundial de la Salud [OMS], 2020b). It was on March 11th of the same year when the WHO declared COVID-19 a global pandemic due to the absence of a specific treatment or vaccine that would allow the reduction of mortality and infections (OMS, 2020a).

The first outbreak was shown in December 2019 in Wuhan, capital of Hubei province, in the People's Republic of China; most of the affected individuals were linked to workers from the Wuhan South China Seafood Wholesale Market (Chaolin et al., 2020).

The worldwide pandemic impact has been quickly extensive, and it continues to grow. It is mainly due to a standard route of infection, respiratory, through the rapid exchange of goods and people daily. The epidemic continues to spread worldwide in different evolutionary phases, with a constant rise in infections and deaths despite a declining lethality of the virus (Serrano-Cumplido et al., 2020).

At the beginning of December 2020, the registries added more than 67.9 million cases distributed in 254 countries and territories of the world, where the five most infected countries were: the United States, India, Brazil, Russia, and France. The WHO then estimated that at least 10% of the world's population had been infected (El Pa \hat{s} , 2020).

More than one year after the global pandemic declaration, the records of infections add up to about 173.4 million cases, 3.7 million deaths, and 2 139.4 million vaccines applied; it was in the United Kingdom where vaccination began in early December 2020 (Forbes México, 2020). Currently, the countries at the top of the list with the highest number of vaccines applied are China, with 777.8 million; the United States, with 301.6 million; and India, with 228 million (Johns Hopkins University & Medicine, 2021).

In Mexico, 2.9 million infections and 243,165 deaths were registered in August 2021. currently, COVID-19 infections are at the highest levels since the beginning of the pandemic due to the third wave of infections. The first wave of infections, on one side, was registered from February 2020 to June 2020; while the second wave was registered from July 2020 until June 2021; currently, the pandemic is in the third wave (Delta variant) (Reuters, 2021).

Quintana Roo is one of the states in Mexico that present a rise in infections compared to the rest of the federative entities. In August 2021, there were 46 704 positive cases, of which 3 411 ended in deaths. In Cancun, the numbers came to 25 444 cases, with 2 155 deaths, being the highest contagion record in the northern part of the state, since it represents 54.5% of the state number in infections and 63.2% in deaths (Gobierno del estado de Quintana Roo, 2021).

2.3.2 The Restaurant Industry vis- àvis COVID-19

Foodservice refers to the marketing of F&B for immediate consumption, take-out, or home delivery. The establishments oriented to providing these services are classified into two sectors: commercial, which include restaurants (fast food, specialties, and healthy), catering, discotheques, and recreational establishments; and non-commercial outlets, where food is processed within hospitals, schools, military bases, and foodservice market (IMARC Group, 2020). Experts estimated that over half of restaurants would not survive (Serveson & Yaffe-Bellany, 2020).

The COVID-19 disease has remarkably modified the population's behavior patterns due to the limitations of social contact, public health, working remotely, and consumption of goods and services (OMS, 2020b). The

restaurant sector registered one of the most significant impacts derived from changes in the population's lifestyle and food consumption due to the pandemic outbreak (Brizi & Biraglia, 2020). It includes protection and health security measures in food production and customer service in the restaurant (Mayasari et al., 2020).

Consumer confidence in prepared foods buying affected the restaurant industry, due to the uncertainty of the diner regarding sanitary measures or the activation of the traffic lights of the location where the restaurant of their choice (INEGI, 2019b). These changes caused the restaurant sector to focus on a home delivery system, using virtual platforms or mobile applications that allowed it to get closer to the customer. Also, they renewed its menu, adding products with a high nutritional level (Amicarelli & Bux, 2020; Ataguba et al., 2020). Another strategy implemented was distributing the physical space in the room (considering the epidemiological traffic light) to guarantee a safe environment inside and outside the restaurant during the consumption of the products (Dube et al., 2020).

Since March 2020, Deloitte has been collecting data and analyzing the shifts in the current consumer mindset to explore the potential implications for the world derived from the pandemic COVID-19. In this Global State of the Consumer Tracker, various countries can examine consumer priorities, purchase behaviors, preferences, and spending decisions. Some of the variables concerning to restaurant industry are safety and financial sentiment for going to a restaurant, restaurants' take-out, intended purchase channel, and consumer perception of pricing changes in a restaurant (Deloitte, 2021).

Home delivery service in these times has been a lifesaver for restaurants, as it allows continuing with the production of dishes for home distribution (Garc á, 2020). Furthermore, the customer checks the menu, the payment methods, and the delivery time supported by various available means such as the mobile application, chat or establishments platforms, and the traditional telephone line (ATV Noticias, 2020). The lack of these alternatives in the restaurant service offered can make it think it is closed or overlook its services (Gomes de Freitas & Stedefeldt, 2020; Leone et al., 2020).

However, not everything is favorable for these suppliers since home delivery services are expensive and impact profit margin reduction (Gomes de Freitas & Stedefeldt, 2020; Leone et al., 2020). Although this strategy has temporarily made it possible to keep business activity afloat within the sector, most local restaurants did not have the financial capacity to survive, causing massive layoffs and closures (Redman, 2020).

2.3.3 Restaurant Industry in Cancun, Quintana Roo

In Mexico, according to the CANIRAC there are just over 500,000 economic units registered as temporary accommodation and F&B preparation services. 97% belong to the F&B preparation services subsector (C ámara Nacional de la Industria de Restaurantes y Alimentos Condimentados [CANIRAC], 2020).

In 2021, the history of the F&B establishments is different, 30% have closed and 50% of the open establishments do not have enough income to stay afloat (INEGI, 2021b). In 2020, this industry had a reported annual growth rate of 4.5%, contributing 30.9% of the economic units; and 19.4% of employment (CANIRAC, 2020). In the 2019 Economic Census, it was reported that 15.3% of tourism GDP and 1.3% of national GDP came from the restaurant industry (INEGI, 2019b).

In 2019, income from this sector represented 1.1% of the country's GDP and 2.2% of intermediate consumption, concentrating more than a quarter of economic units to the provision of private services; this placed the service sector as the second-largest employer nationwide (INEGI, 2021d).

According to the Economic Census (INEGI, 2021d), in Quintana Roo, there are 8 212 restaurants; all these economic units achieved 61.6% occupancy in the first quarter of 2021. Then the economically active population is 47 842 employees.

By 2020, in Cancún there was a total of 3 000 restaurants (Vázquez, 2020), 500 were tourist category (Tripadvisor, 2021), and 2,500 offered their services in the metropolitan area. During the pandemic, due to regulation indications, it was estimated that 95% closed for in-place service but continued to provide the service through digital platforms and/or home delivery (Vázquez, 2020).

During the period from January to March 2021, the job unemployment rate was 10.9% due to the low demand of the tourist destination, causing a labor informality rate of 43.7% (INEGI, 2021b). Additionally, the occupancy rate in the tertiary sector was 84.3%, behavior that has been remarkably similar in the two previous homologous quarters (84.5%, in 2020, and 84.9%, in 2019) (INEGI, 2019a; INEGI, 2020b).

In this destination, the employment rate between the service and commercial sectors also favored the first quarter: from January to March 2021; it was 76% in service and 24% in commerce (INEGI, 2021a). This distribution

varied against the homologous quarters of 2020 and 2019 since it was 79% in service, 21% in commerce, equally (INEGI, 2019a; INEGI, 2020b).

Likewise, it is known that accommodation and F&B services are the predominant sector of economic activity in this city, as it stands for 22% of the total (INEGI, 2021a); This distribution also varied about the two homologous quarters of 2020 and 2019, when it was 23.2% (INEGI, 2019a; INEGI, 2020b).

3. Method

This research had a quantitative approach, which considers that knowledge should be objective and that it is generated from a deductive process (Hern ández et al., 2014) in which, through numerical procedures and inferential statistical analysis, the formulated hypothesis would be tested (Monroy & Nava, 2018).

The scope was correlational to determine the degree of association between variables (Bernal, 2010) and the probability of occurrence of various events (Pérez et al., 2020) related to the consumption habits of the target population of current and potential diners in Cancun restaurants before and during the COVID-19 pandemic.

The non-experimental cross-sectional design obeyed the fact that the phenomenon would only be observed in its natural environment and then analyzed (Mata, 2020), applying the empirical method to collect the necessary observations of the subjects under study. The target population was Cancun residents of legal age, with a job or who had been working in recent months, and who had the habit of consuming in restaurants in the city.

The sampling was probabilistic by clusters since the list of the target population, which was large and dispersed throughout the city, was unknown (Tamayo, 2001). This selection was made in two stages: the initial sampling gathered 928 elements. Subsequently, a random sample was selected from this totality of records (n=661), considering the variable age range to avoid bias in the results. This sample size was defined with a confidence level of 95% and a margin of error of 3.7%.

The instrument for collecting data was a self-administered online questionnaire of 31 items, see Table 17 (Appendix section), with an average administration time of about 15 minutes. The reliability index used to estimate the homogeneity of the items in the instrument was Cronbach's Alpha (Dos Santos, 2017), resulting in .7; the instrument used retained quality and precision, allowing the content validity to be obtained (Tob ón et al., 2018).

The survey was conducted from October 2020 to February 2021. The surveyors selected the elements through their most accessible electronic media or in nearby geographic areas where they could be contacted under safe conditions for health. The questionnaire was delivered via a link to the GoogleForms.v.365 platform, ensuring the confidentiality of the subjects' data.

The variables under study were five: (a) sociodemographic profile, composed of gender, marital status, age, having children, and level of education; (b) work profile, which considered work status, type of organization where they work, level of monthly family income; (c) restaurant consumption habits, composed of four dimensions which were frequency of consumption, size of the accompanying group, spend per person, and preferred type of restaurant. This variable was probed at two different moments in the same subject: previous (PP) and during or currently (DP) the pandemic, as well as they were asked when using restaurants with individual attendance during labor days (LD) or accompanied by friends and family (FF); (d) purchase motivators, which was composed of three dimensions such as their ongoing decision to consume in restaurants, the reasons why customers stopped using these eating places, and the reasons that bring about confidence or distrust regarding restaurants, time to return to these places, and actions they should perceive from the restaurant service provider to feel motivated to consume.

The statistical processing of data was conducted with SPSS v.20 software to elaborate contingency tables and hypothesis tests; Microsoft Excel v.365 spreadsheets supported elaborating tables and graphs for the visual presentation.

Analysis of results of the variables related to consumption habits was subjected to nonparametric methods for related samples, with a significance level (α) of 0.05. The Wilcoxon signed-rank test was applied to validate significant differences between ordinal and interval variables PP and DP. The hypothesis formulation was as follows (Berlanga & Rubio, 2012):

$$H_0: \pi = 0.5$$

$$H_a: \pi \neq 0.5$$

Where H_0 = null hypothesis stating no change in the variables PP and PD.

 H_a = alternative hypothesis that asserts a change in the variables PP and PD.

 π = proportion of the population that has the desired characteristic.

McNemar's test was applied to the dichotomous variables (TypeLDPP, TypeLDDP, TypeFFPP, TypeFFDP) for the following hypothesis (Visauta, 2007):

$$H_0: p_1 = p_2$$
$$H_a: p_1 \neq p_2$$

Where H_0 = null hypothesis states that the difference between the proportions of the variables PP and PD is zero.

 $H_{\rm a}$ = alternative hypothesis states that the difference between the proportions of the variables PP and PD is different from zero.

 p_1 = proportion of the population that has the desired characteristic.

 p_2 = proportion of the population against which p_1 is compared.

Spearman's rank correlation was used to correlate variables because the association was set up between ordinal data (Sweeney et al, 2016). That is, if a sample correlation coefficient by ranks (rs) close to ± 1 was obtained, a strong positive or negative linear association between the variables would be appreciated, respectively. The hypothesis formulation was as follows:

$$H_0: \rho_s = 0$$
$$H_a: \rho_s \neq 0$$

Where $H_0 =$ null hypothesis states that both variables under analysis have no relationship between their ranges.

 $H_{\rm a}$ = alternative hypothesis states that both variables under analysis have a relationship between their ranges.

 ρ_s = Spearman's correlation coefficient.

The decision rule for the hypothesis tests was to reject Ho if *p*-value<0.05.

4. Results Analysis

The results are displayed in the following order: the sociodemographic and occupational profile of the subject under analysis derived from a sample of 661 respondents; the changes in restaurant consumption habits PP and DP, concerning individual attendance in restaurants, and with FF; at last, their purchase motivators and purchase intention.

4.1 Sociodemographic and Employment Profile

The percentage distributions of the eight dimensions considered for the respondent's sociodemographic, and occupational profile are the following:

The sample was equally distributed between men and women; 46.1% of them were single, and one third (33%) were married; the age distribution, by ranges, was not symmetrical, since almost two thirds (64.1%) were under 40 years of age, which resulted in the mean age of 33.8 years. As for children, almost half (48.4%) do not have any; of the respondents who do report having children, they have an average of 2 children. Finally, most of these subjects have completed high school (28.9%) or college (38.7%), see Table 1.

Table 1. Sociodemographic profile

| VARIABLE | PERCENTAGES DISTRIBUTION | | | | | | | | | | |
|------------------------------|-----------------------------|---------------------|------------------|-------------------------|-------------------------|-------------------------|-------------------------------|-----------------------------|--------------------------|-----------------|--------------|
| Gender | | | ۸ 50 | /lan).7% | | - | | l | <i>Voman</i> 49.3% | | |
| Marital status | <i>Ма</i> 33 | nried 3.0% | | Divorced 5.3% | 1 | S 4 | ingle 6.1% | Unma 13.0 | arried)% | Wide 2.6 | owed 5% |
| Age (years old) | < 20 9.2% | 20 - 24 16.3% | 25 - 29 15.6% | 30 - 34 14.2% | 35 - 39 8.8% | 40 - 44 12.6% | 45 - 49 11.2% | 50 - 54 6.7% | 55 - 59 2.9% | 60 - 64 1.7% | > 64 0.9% |
| Family (# of descendants) | 48 | 0 3.4% | 13. | 1 5% | 22. | 2 .1% | 10. | 3 1% | 4.1 | 4 1% | 5 1.8% |
| Level of education | l edua 0. | Vo cation .3% | Primary 3.0% | Secon- dary 11.5% | High school 28.9% | Techni- cal 11.5% | Bachelor's degree 38.7% | Truncated career 0.5% | Post graduate 5.4% | Stuc 0.2 | lying 2% |

In the work environment, 74.7% are active, the lowest proportion is on labor suspension (10.3%), employers intend to rehire them once the situation is reestablished. Those unemployed (15%) have been considered in this sample because they did have a job before the pandemic began. Those who are part of a private company account for 70%. Finally, the level of monthly household income was remarkably similar in representation among the mid ranges, between 135 USD and less than 1,750 USD (together accounting for 84.6% of the representation). The household income contains all household members (including wages supplemented by tips), see Table 2.

Table 2. Occupational profile

| VARIABLE | | PERCENTAGES DISTRIBUTION | | | | |
|-------------------|-----------------------|--------------------------------------|------------------------------------|------------------------|--------------------------|------------------------------|
| Labor | С | n temporary layoff No 10.3% 15.0% | | Yes 74.7% | | |
| TOrganizati on | Entrepreneur 0.8% | | Entrepreneur Private 0.8% 70.0% | | Public 29.3% | |
| Income (USD) | Not income 4.5% | 135 or less 10.6% | 135.1 - 340.0 29.5% | 340.1 - 580.0 28.5% | 580.1 - 1,750.0 26.6% | More than 1,750.0 4.8% |

Table 3. Hypothesis tests with non-parametric methods

| Wilcoxon | signed-rank | tes |
|----------|-------------|-----|

Contrast statistics^a

| | ConsLDDP - ConsLDPP | ClientLDDP - ClientLDPP | SpendLDDP - SpendLDPP | ConsFFDP - ConsFFPP | ClientFFDP - ClientFFPP | SpendFFDP - SpendFFPP |
|-----------------|------------------------|----------------------------|--------------------------|------------------------|----------------------------|--------------------------|
| Z | -13.469 ^b | -10.610 ^b | -6.813 ^b | -16.366 ^b | -15.164 ^b | -12.258 ^b |
| Asymptotic Sig. | .000 | .000 | .000 | .000 | .000 | .000 |
| (bilateral) | | | | | | |

a. Wilcoxon signed-rank test
b. Based on positive ranks.

b. based on positive rar

McNemar test

| Contrast statistics ^a | | | | | | |
|----------------------------------|---------------|---------------|---------------|---------------|--|--|
| | TypeLDPP_Fond | TypeLDPP_ | TypeLDPP_ | TypeLDPP_ | | |
| | asand | FoodTruck and | ShoppingMall | Cafeteria and | | |
| | TypeLDDP_Fond | TypeLDDP_ | and TypeLDDP_ | TypeLDDP_ | | |
| | as | FoodTruck | ShoppingMall | Cafeteria | | |
| N | 661 | 661 | 661 | 661 | | |
| Chi-squared ^b | 35.062 | 4.491 | 63.362 | 9.011 | | |
| Asymptotic Sig. | .000 | .034 | .000 | .003 | | |
| Exact Sig. (bilateral) | | | | | | |

a. McNemar test b. Correction for continuity

c. Binomial distribution has been used.

| Contrast statistics ^a | | | | | | |
|----------------------------------|--------------|------------|------------------|-----------------|--|--|
| | TypeLDPP_ | TypeLDPP_ | TypeLDPP_ | TypeLDPP_ | | |
| | FastFood and | Casual and | FineDining and | Others and | | |
| | TypeLDDP_ | TypeLDDP_ | TypeLDDP_ | TypeLDDP_ | | |
| | FastFood | Casual | FineDining | Others | | |
| N | 661 | 661 | 661 | 66 ⁻ | | |
| Chi-Square ^b | 10.458 | 48.167 | | | | |
| Asymptotic Sig. | .001 | .000 | | | | |
| Exact Sig. (bilateral) | | | 017 ^c | 453 | | |

a. McNemar test

b. Correction for continuity

c. Binomial distribution has been used.

| Contrast statistics ^a | | | | | | | |
|----------------------------------|------------|---------------|------------|---------------|--|--|--|
| | TypeFFPP_ | TypeFFPP_ | | | | | |
| | Fondas and | FoodTruck and | Plazas and | Cafeteria and | | | |
| | TypeFFDP_ | TypeFFDP_ | TypeFFDP_ | TypeFFDP_ | | | |
| | Fondas | FoodTruck | Plazas | Cafeteria | | | |
| N | 661 | 661 | 661 | 661 | | | |
| Chi-Square ^b | 26.426 | 15.836 | 78.720 | 11.066 | | | |
| Asymptotic Sig. | .000 | .000 | .000 | .001 | | | |
| Exact Sig. (bilateral) | | | | | | | |
| | | | | | | | |

a. McNemar test

b. Correction for continuity

c. Binomial distribution has been used.

| | TypeFFPP_ | TypeFFPP_ | TypeFFPP_ | TypeFFPP_ | |
|-------------------------|--------------------------|------------------------|----------------------------|------------------------|--|
| | FastFood and TypeFFDP | Casual and TypeFFDP | FineDining and TypeFFDP | Others and TypeFFDP | |
| | FastFood | Casual | FineDining | Others | |
| Ν | 661 | 661 | 661 | 661 | |
| Chi-Square ^b | 43.751 | 93.845 | 21.780 | | |
| Asymptotic Sig. | .000 | .000 | .000 | | |
| Exact Sig. (bilateral) | | | | .500 ^c | |

a. McNemar test

b. Correction for continuity

c. Binomial distribution has been used.

4.2 Hypothesis Tests

Hypothesis tests' results for the association of the dimensions of the variable change in consumption habits are displayed in Table 3.

Overall, each of the desired associations presented a significant difference, which made it possible to compare all the associations proposed, except for the Others recollected for TypeLDPP_Others and TypeLDDP_Others; TypeFFPP_Others and TypeFFDP_Others.

4.3 Individual Consumption Habits during Labor Days

This variable was probed at two different times for the same subjects, as individual behavior during LD, when they were using restaurants PP, and ongoing use of these establishments DP. The dimensions of this variable included frequency of consumption (ConsLD), size of the accompanying group (ClientLD), consumption expenditure per person (SpendLD), and preferred type of restaurant (TypeLD).

It is to say that the collection of SpendLD was made in Mexican pesos. For presentation purposes, an exchange rate of \$20 per 1 USD was used, the average reference exchange rate from January to November 2021.

In the case of ConsLD in restaurants, non-consumers increased by just over 15 percentage points: one-fifth reported not consuming PP, which increased to 36.2%. Also, those who consume alone increased by registering 14.7 percentage points, akin to the earlier group of non-consumers. On the other hand, attending with more people decreased. The average consumption decreased from 2.5 occasions per week to 1.7, considering those who told that they continue to consume or used to consume PP, see Table 4.

Table 4. Frequency of consumption in restaurants with individual attendance during labor days, before and during the pandemic

| Consumption in labor days (ocassions/week) | Previous pandemic | During pandemic | Difference |
|---|----------------------|--------------------|------------|
| ConsLD | ConsLDPP | ConsLDDP | |
| l did/do not consume | 20.7% | 36.2% | 15.4% |
| 1 | 25.0% | 39.6% | 14.7% |
| 2 | 18.8% | 12.6% | -6.2% |
| 3 or more | 35.6% | 11.6% | -23.9% |
| TOTAL | 100.0% | 100.0% | 0.0% |
| | | | |
| Average | 2.5 | 1.7 | 0.8 |

The size of the accompanying group (ClientLD) was also analyzed as a dimension of their behavior. The group considered in this conduct may be composed of coworkers since it does not include friends or family members to socialize in a moment of leisure. More people chose to attend restaurants individually; the percentage increase in this event was the highest among all comparisons (14%). Likewise, the group size greater than three people, including the respondent, decreased by almost 13 percentage points. The average group size varied little, from 3.2 to 2.9; this average did not consider the number of individuals who reported attending alone, see Table 5.

Table 5. Size of the group attending/attending restaurants during labor days, before and during the pandemic

| Client (pax per group) <i>ClientLD</i> | Previous pandemic ClientLDPP | During pandemic ClientLDDP | Difference |
|--|------------------------------------|----------------------------------|------------|
| Alone | 13.9% | 27.9% | 14.0% |
| 2 | 30.3% | 34.8% | 4.5% |
| 3 | 25.4% | 19.6% | -5.8% |
| 4 or more | 30.3% | 17.7% | -12.7% |
| TOTAL | 100.0% | 100.0% | 0.0% |
| Average | 3.2 | 2.9 | 0.3 |

The third dimension of this variable was consumption expenditure per person (SpendLD). Table 6 shows this distribution, but there were no relevant changes. The SpendLD average ranged from 9.9 USD PP to 9.0 USD DP.

| Spend (USD) | Previous pandemic | During pandemic | Difference |
|----------------|-------------------|-----------------|------------|
| SpendLD | SpendLDPP | SpendLDDP | |
| 7.5 or less | 45.8% | 52.2% | 6.4% |
| 7.6 to 15 | 35.9% | 32.9% | -3.0% |
| More than 15 | 18.3% | 14.9% | -3.4% |
| TOTAL | 100.0% | 100.0% | 0.0% |
| | | | |
| Average | 9.9 | 9.0 | 0.9 |

Table 6. Spending at individually attended restaurants during labor days, before and during pandemic

Finally, about the TypeLD they used to visit PP or DP, they prefer Fondas (small Mexican restaurants where consumers can eat popular dishes at an economical price) in the first place. Fast food (e.g., Burger King, McDonald's, Starbucks, among others) is the Type that increased the most, almost three percentage points above between both moments. However, those found in shopping malls, specifically the food court, have received the most significant decrease with 3.8 percentage points, see Table 7.

| Туре | Previous pandemic | During pandemic | Difference | |
|---------------|----------------------|--------------------|------------|--|
| TypeLD | TypeLDPP | TypeLDDP | | |
| Fonda | 25.3% | 27.0% | 1.6% | |
| Food truck | 4.8% | 5.0% | 0.1% | |
| Shopping mall | 20.4% | 16.6% | -3.8% | |
| Cafeteria | 10.3% | 11.5% | 1.2% | |
| Fast food | 17.7% | 20.5% | 2.9% | |
| Casual | 18.9% | 16.8% | -2.0% | |
| Fine dining | 2.3% | 1.9% | -0.4% | |
| Other | 0.3% | 0.7% | 0.5% | |
| TOTAL | 100.0% | 100.0% | 0.0% | |

Table 7. Type of restaurant attended/attending individually during labor day, before and during the pandemic

4.4 Consumption Habits with Friends and Family

As well as inquiring into the two moments of individual consumption, the diner's behavior was also analyzed when accompanied by FF, PP and DP.

In the case of frequency of consumption with FF (ConsFF) in restaurants, the behavior that increased the most was to stop consuming or consume alone (an identical increase of 19 percentage points). On the contrary, attending restaurants two times a week to eat with FF decreased more than 10 percentage points; and those who ate three or more times a week decreased more than 20 points. In addition, the average consumption dropped from 2.2 occasions per week to 1.5, that is, one less time per week on average, see table 8.

Table 8. Frequency of consumption in restaurants with friends and family, before and during pandemics

| Consumption with friends and family (ocassions/week) | Previous pandemic | During pandemic | Difference |
|--|----------------------|--------------------|------------|
| ConsFF | ConsFFPP | ConsFFDP | |
| l did/do not consume | 3.0% | 21.9% | 18.9% |
| 1 | 37.2% | 56.3% | 19.1% |
| 2 | 24.1% | 10.7% | -13.3% |
| 3 or more | 35.7% | 11.0% | -24.7% |
| TOTAL | 100.0% | 100.0% | 0.0% |
| | | | |
| Average | 2.2 | 1.5 | 0.7 |

In terms of group size (ClientFF), the results pointed to two relevant changes; while it was expected that restaurant consumption, and perhaps several other daily activities, would increase on an individual basis, this situation was no exception, from 20.6%, attendance with FF at these establishments increased to almost 52%; on the other hand, all groups of more than three persons decreased by almost 30 percentage points. The average size changed from 3.7 to 2.8 persons per group (i.e., 3 persons PP and 2 persons DP accompanied him/her in addition to the respondent), see Table 9.

1.7

9.7

| Client ^a (pax per group) | Previous pandemic | During pandemic | Difference |
|--|----------------------|--------------------|------------|
| ClientFF | ClientFFPP | ClientFFDP | |
| 2 | 20.6% | 51.9% | 31.3% |
| 3 | 26.2% | 24.6% | -1.6% |
| 4 or more | 53.2% | 23.4% | -29.7% |
| TOTAL | 100.0% | 100.0% | 0.0% |
| | | | |
| Average | 3.7 | 2.8 | 0.9 |

Table 9. Size of group attending/attending restaurants with friends and family, before and during the pandemic

^aThe surveyed subject is included in the group

The sample was distributed on consumption expenditure per person (SpendFF), as shown in Table 10. The only ranges that ascended between PP and DP were those of 7.5 USD or less. SpendFF average ranged from 11.4 USD PP to 9.7 USD DP.

| Spend (USD) | Previous pandemic | During pandemic | Difference |
|----------------|-------------------|-----------------|------------|
| SpendFF | SpendFFPP | SpendFFDP | |
| 7.5 or less | 32.8% | 46.5% | 13.8% |
| 7.6 to 15 | 42.0% | 39.9% | -2.0% |
| More than 15 | 25.3% | 13.6% | -11.7% |
| TOTAL | 100.0% | 100.0% | 0.0% |

Table 10. Spending at restaurants with friends and family, before and during pandemics

Average

Finally, the type of restaurant (TypeFF) that used to frequent PP or that they now frequent accompanied by FF, Fondas or market stalls, or similar, increased by almost four percentage points between the two periods. However, those found in shopping malls (food courts) have registered a decrease of almost two percentage points, half of what happened in individual consumption, see Table 11.

11.4

Table 11. Type of restaurant attended/attending with friends and family, before and during the pandemic

| TypeFF | Previous pandemic | During pandemic | Difference |
|---------------|-------------------|-----------------|------------|
| TypeFF | TypeFFPP | TypeFFDP | |
| Fonda | 19.9% | 23.8% | 3.9% |
| Food truck | 5.8% | 5.4% | -0.4% |
| Shopping mall | 21.5% | 19.7% | -1.9% |
| Cafeteria | 5.9% | 6.0% | 0.1% |
| Fast food | 19.1% | 20.2% | 1.1% |
| Casual | 23.7% | 22.4% | -1.3% |
| Fine dining | 3.9% | 2.5% | -1.3% |
| Other | 0.1% | 0.0% | -0.1% |
| TOTAL | 100.0% | 100.0% | 0.0% |

The comparison between Type and Spend allowed observing the changes between these groups, choosing the most representative restaurants in the sample: Fondas, Shopping malls, Fast food, and Casual.

The most frequent SpendLD was on Fondas (63.3%), with an expenditure less than or equal to 7.5 USD. At this same level of SpendLD, Fast food (e.g., Burger King, McDonald's, Starbucks) increased by almost nine percentage points. Also, SpendLD between 7.6 and 15 USD decreased in this same type of restaurant (-6.2 percentage points). Casual restaurants (e.g., Hooters, T.G.I. Friday's, Applebee's, Vips, Toks, Caf é Nader) registered a 4 percentage point decrease in the level of expenditures over 15 USD; but this decrease was even more significant in Fondas (-7.4 percentage points), see Table 12.

| SpendLD | FONDAS | | | SpendLD | FAST F | OOD | D ''' |
|--------------|-------------------|-----------------|------------|--------------|-------------------|-----------------|--------------|
| (USD) | Previous pandemic | During pandemic | Difference | (USD) | Previous pandemic | During pandemic | Difference |
| 7.5 or less | 57.4% | 63.3% | 5.9% | 7.5 or less | 41.1% | 50.0% | 8.9% |
| 7.6 to 15 | 30.2% | 31.7% | 1.5% | 7.6 to 15 | 40.6% | 34.3% | -6.2% |
| More than 15 | 12.4% | 5.0% | -7.4% | More than 15 | 18.4% | 15.7% | -2.7% |
| TOTAL | 100.0% | 100.0% | 0.0% | TOTAL | 100.0% | 100.0% | 0.0% |
| SpendLD | SHOPPING MALLS | | Difference | SpendLD | CASU | JAL | Difference |
| (USD) | Previous | During | Difference | (USD) | Previous | During | Difference |
| | pandemic | pandemic | | | pandemic | pandemic | |
| 7.5 or less | 37.1% | 42.5% | 5.5% | 7.5 or less | 22.5% | 22.8% | 0.3% |
| 7.6 to 15 | 44.6% | 41.8% | -2.8% | 7.6 to 15 | 43.2% | 47.1% | 3.8% |
| More than 15 | 18.3% | 15.7% | -2.7% | More than 15 | 34.2% | 30.1% | -4.1% |
| | | | | | | | |

Table 12. Type of restaurant chosen before and during the pandemic vs. consumption spend per person

When analyzing the average SpendLD in these TypeLD, all decreased, although the most outstanding variation was the Casual restaurant. The latter and the Fonda type registered variations above the Spend average of the sample in general, see Table 13.

Table 13. Average consumer spending per person vs. type of restaurant chosen during labor days, before and during the pandemic

| | SpendLD (US | average | | | | |
|----------------|----------------------|--------------------|-----|------------|-----------|--------|
| TypeLD - | Previous pandemic | During pandemic | - D | Difference | Variation | |
| Fondas | 8.4 | 7.2 | - | 1.1 | | -13.6% |
| Shopping malls | 10.3 | 9.8 | - | 0.5 | | -5.0% |
| Fast food | 10.3 | 9.4 | - | 0.9 | | -9.1% |
| Casual | 13.2 | 10.6 | - | 2.7 | | -20.1% |
| Global average | 9.9 | 9.0 | - | 0.9 | | -9.2% |

In the lower levels of SpendFF, the change between PP and DP is ascending with two figures of percentage points. In the middle and elevated levels of SpendFF, it is downward. In all cases, the highest spends declined by more than 11 percentage points see Table 14. In general, the spending behavior by TypeFF register a greater change compared to TypeLD, see Table 14.

Table 14. Type of restaurant chosen when socializing with friends and family before and during the pandemic vs. consumer spending per person

| SpendFF | FONE | DAS | Difference | SpendFF | FAST F | OOD | Difforence |
|--------------|----------------------|-----------------|------------|--------------|----------------------|--------------------|------------|
| (USD) | Previous pandemic | During pandemic | Difference | (USD) | Previous pandemic | During pandemic | Difference |
| 7.5 or less | 44.2% | 58.0% | 13.9% | 7.5 or less | 30.8% | 40.8% | 16.0% |
| 7.6 to 15 | 37.0% | 35.8% | -1.2% | 7.6 to 15 | 45.1% | 45.1% | -4.8% |
| More than 15 | 18.8% | 6.2% | -12.7% | More than 15 | 24.1% | 14.1% | -11.2% |
| TOTAL | 100.0% | 100.0% | 0.0% | TOTAL | 100.0% | 100.0% | 0.0% |
| SpendFF | SHOPPING MALLS | | Difference | SpendFF | CASL | JAL | Difference |
| (USD) | Previous pandemic | During pandemic | Difference | (USD) | Previous pandemic | During pandemic | Difference |
| 7.5 or less | 30.3% | 45.3% | 17.8% | 7.5 or less | 20.4% | 31.9% | 12.7% |
| 7.6 to 15 | 46.8% | 43.8% | -5.9% | 7.6 to 15 | 47.1% | 50.2% | -1.4% |
| More than 15 | 22.8% | 10.9% | -11.9% | More than 15 | 32.4% | 17.9% | -11.3% |
| TOTAL | 100.0% | 100.0% | 0.0% | TOTAL | 100.0% | 100.0% | 0.0% |

The SpendFF average per person also decreased by TypeFF, the most significant variation being in Fondas (-21%). The only one that was not above the average of the global variation was Fast food, although it did decrease (-12.4%), see Table 15.

| | SpendFF a | average D) | |)ifference | Vari | ation |
|----------------|-----------|---------------|------------|------------|-----------|--------|
| туретт | Previous | During | Difference | | Variation | |
| | pandemic | pandemic | | | | |
| Fondas | 9.9 | 7.8 | - | 2.1 | | -21.0% |
| Shopping malls | 11.2 | 9.4 | - | 1.8 | | -16.5% |
| Fast food | 11.2 | 9.8 | - | 1.4 | | -12.4% |
| Casual | 13.1 | 11.1 | - | 2.0 | | -15.3% |
| Global average | 11.4 | 9.7 | - | 1.7 | | -14.7% |

Table 15. Average spending per person vs. type of restaurant chosen before and during the pandemic with friends and family

4.5 Purchase Motivators and Purchase Intention

The purchase motivators in the behavior of restaurant consumers were composed of three dimensions: their ongoing decision to consume in restaurants, the reasons why customers stopped using these eating places, and the reasons that bring about confidence or distrust of restaurants. The purchase intention was also composed of three dimensions: their position on returning to restaurants, time of return to these spaces, actions that they should perceive from the restaurant service provider to feel motivated for their consumption.

Most of the population described in the sociodemographic profile (60%) continues to consume in restaurants, although almost a third (37.6%) declare that they do not do so. The rest, which stands for less than 2.5%, did not consume today, nor do they consume in establishments of this type.

What discouraged people from going to eat at a restaurant was mainly the fear of infection by COVID-19, which accounted for just over a quarter (26%) of the recorded occurrences (665); a second reason was the care they are taking with their daily expenses (21.5%); the third reason was to opt for a home delivery service, or to take away (13.7%). These three reasons accounted for more than 60% of the mentions. Respondents expressed 2.6 reasons on average, however there were respondents showing as many as nine. The rest of the reasons are shown in Table 16.

Table 16. Reasons for avoiding restaurant food during the pandemic

| Motivation | Percentage |
|--|------------|
| Fear of becoming infected with COVID-19 | 26.0% |
| I preferred to limit my spending until I see a better overall economic situation. | 21.5% |
| I preferred take-out or delivery service. | 13.7% |
| I do not believe that the staff has adequate training to prevent the transmission of COVID-19. | 9.3% |
| I generally perceive restaurants as places without adequate disinfection. | 8.9% |
| I became unemployed | 8.4% |
| Many of the people I used to go out to restaurants with prefer not to go | 4.4% |
| The experience is no longer satisfactory because of health protocols. | 3.9% |
| Places I used to frequent have closed | 3.9% |
| Total | 100.0% |

Four reasons would motivate them to go back to consuming at restaurants as they did before: the correct application of safety and hygiene protocols in production and service processes in a restaurant; being vaccinated against the COVID-19 disease; the maintenance of a healthy distance from people, which implies that the room is not 100% full; and of course, the termination of the pandemic. Slightly more than half of the people who did not cancel their attendance to restaurants DP and who already consumed in these centers PP are willing to return to locations, and 43.3% said they might.

When asked about the length of time it would take to decide to buy from restaurants again, almost 40% expressed they did not know, those who can be considered indecisive; while in three months or less, close to 30% would already be resuming their restaurant consumption habits. The groups that chose 3 months, 6 months, or 1 year or more represented similar percentages, see Figure 1.



Figure 1. Period in which the consumer expects to return to restaurants

5. Discussion

Mexico, in 2009, registered a 30% GDP fall in the restaurant sector due to AH1N1 influenza; from this scenario, CANIRAC and Deloitte estimated an 85% fall due to the pandemic of COVID-19 in restaurants (Deloitte S-LATAM, 2020). However, the present study generated detailed information on the restaurant industry in Cancun. It showed a 38.3% drop in average revenue per person during labor days; considering this diner has a ConsLDPP average of 2.5 occasions per week and a ConsLDDP average of 1.7 occasions per week, the restaurant, instead of having an average revenue per person per week of 24.8 USD, is only receiving 15.3 USD. Additionally, concerning group behavior -consumption with friends and family- in restaurants, spending was 44.1% less. This dining habit derived from a ClientPP average of 3.2 per group vs. an average ClientDP of 2.9 per group. Therefore, with the ConsPP average and ConsDP average showed in the earlier paragraph, if having an average SpendPP of 79.2 USD per group per week, the client will be recording an average SpendDP of 44.3 USD.

The results of this study are consistent with Sigala's (2020), who also concluded that the effects of COVID-19 were devastating to the hospitality industry, including restaurants. This current study revealed that there had been changes in consumption habits, both in terms of frequency, group size, and consumption expenditure, but not in the type of restaurant, since the variations in this last dimension were not greater than 3 percentage points.

CANIRAC estimated regarding the national economic impact caused by the COVID-19 pandemic, that luxury restaurants - largest group of members of CANIRAC- would suffer the most significant loss decreasing of up to 80% in the average spend (Vargas & Brennan, 2020). Additionally, Google data Mobility changes' report pointed 45% decrease in Mexico in visits to restaurants, coffee shops, shopping centers, among other places, which has caused a 60% reduction in average spending (Konf ó, 2021). Instead, the present study considered all type of restaurant in the city of Cancun, revealing more detailed information about spending. SpendLD per subject per week recorded a drop because its average SpendLDPP was 9.9 USD, and today it reports an average SpendLDDP of 9.0 USD; 9.1% less. SpendFFPP was 11.4 USD, and today it is an average SpendFFDP of 9.7 USD, dropping 14.9%. The decrease in both spending was slighter than it was expected in earlier studies concerning the COVID-19 pandemic.

It was also noted that in individual behavior during LD, there was a decrease of one occasion of consuming in restaurants per week between the average of ConsPP and the average of ConsDP, and the percentage of people who stopped consuming increased by 15.4 percentage points. This behavior may have been, as Kim and Lee (2020) pointed out that affluence reduced derived from governments issued guidance on social distancing that required restaurants to reduce their seating capacity.

ConsFF's loss in sales revenue per week is double-digit, 56% per group. The average SpenFFPP was 11.4 USD and today reports a SpendFFDP average of 9.7 USD. If this group of diners has a ConsFFPP average of 2.5 occasions to consuming in restaurants per week, and a ConsFFDP average of 1.5 occasions per week, considering ClientFFPP average was 3.7, and ClientFFDP average of 2.8; the restaurant instead of having an average weekly income per group of 92.7 USD, are only receiving 40.8 USD, approximately.

Meanwhile, home delivery increased 13.7%, as this strategy became a common means of sale due to the limitation of person-to-person contacts or visits to the establishment.

Analyzing in more detail this spending behavior, divided between those who spend the least, average, and those who spend the most, versus the TypeFF chosen PP and DP, the perception of safety in the Casual type of restaurant can be positive. The diner trusts that the service provider will fully or mostly implement the indications of the Safe Table protocol.

In Deloitte's Global State of the Consumer Tracker, it turns out that in Mexico, in September 2021, 38% of the population feels safe going to a restaurant (Deloitte, 2021). Such a result is like the present research; nevertheless, the latter allowed to know the period diners can return to restaurant locations; 26.3% of them declared they would return in three months or less, and 39.4% would return in six months or less. It could be related to their confidence in using this type of service.

Kim and Lee (2020) focused on threats that customers perceived in restaurants, confirming that the consumers felt threatened in the restaurant of infecting with the coronavirus. The present study's results about Cancun city are similar, in which 26% of consumers declared fear of becoming infected with COVID-19. In addition, 43% of people who are hesitant to return to the restaurant are the target market to be attracted. The response of 'maybe I will consume in restaurants again' was possibly influenced by the fear of COVID-19 infection, since at the time of the field survey, the vaccination campaign had not yet begun, nor was there a clear plan for it. Yildrim et al. (2020) have confirmed previously analogous results referring that perceived risk from COVID-19 encouraged consumers to engage in preventive behaviors, including staying at home, avoiding public meetings, and physical/social distancing.

The conclusion reached in this study is valuable because it serves as a reference for decision-makers in restaurants when successive health crises occur to measure the economic impact on the restaurant sector in Cancun.

As for the collection of information, the pandemic almost totally restricted person-to-person contact for the administration of the survey, the larger sample size was determined, respecting the conditions of probability sampling to increase the probability of reporting conclusive results. In addition to the fact that the field survey staff was large, it was necessary to train them efficiently and supervise the work of each one to avoid biases.

It would have been preferable to keep the consumption habits variable without the LD condition; perhaps that influenced its dimensions (Cons, Client, Spend, and Type). In addition, there was a lack of in-depth research on the complimentary service of restaurant delivery since direct competition in the market influences the consumer's purchase intention, and whoever uses this service is a customer.

Among the trends in consumption habits in restaurants, it was found that diners are looking for healthier and even nutritious food (Ares et al., 2013; Peters & Remaud, 2020). However, the type of food they sought PP or DP, was not a variable considered; this could be addressed in future research since the menu may be a determining factor in the decision-making process about restaurant services.

Likewise, if an analysis of the change in habits by type of restaurant used were needed, a sample specifically selecting that market segment would have to be administered.

Finally, one of the hypotheses was that client spending was related to his income. However, there was not enough statistical evidence to relate both variables.

The constant changes in the consumption habits of diners will continue to be the subject of analysis, the extraordinary conditions that the world is experiencing make it even more attractive. It will be necessary to observe these consumption behaviors in the future. If we already have this evidence of PP and DP, we will only have to complement this future with a post-pandemic study.

Following this method, it is possible to replicate a similar study in other cities, allowing to know in detail the changes in consumer behavior, thus generating a source of information that will help make decisions.

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Appendix

Table 1. Questionnaire applied to restaurant consumers

| NUM. | VARIABLE | DIMENSION | # Q | QUESTION / ANSWERS |
|------|----------------------------|------------|-----|--|
| 1 | Pre-pandemic (PP) habit | ConsLDPP | 1.1 | How many times a week did you consume in a restaurant <i>during labor days</i> ? |
| | | | | I did not consume in restaurants during labor days. |
| | | | | 2 |
| | | | | 3 |
| | | | | 4 5 |
| | | | | More than 5 |
| 2 | Pre-pandemic (PP) habit | ClientLDPP | 1.2 | When consumed in a restaurant during labor days, how many people did you eat with? |
| | | | | 1 |
| | | | | 2 3 |
| | | | | 4 |
| | | | | 5 More than 5 |
| 2 | Dra mandamia (DD) hahit | Snondi DDD | 1.2 | How much did you spend per person on each of the restaurant purchases |
| 3 | Pre-pandennic (PP) nabit | SpendLDPP | 1.5 | during labor days? ^a |
| | | | | 2.5 USD or less 2.6-5.0 USD |
| | | | | 5.1-7.5 USD |
| | | | | 7.6-10.0 USD |
| | | | | 12.6-15.0 USD |
| | | | | 15.1-17.5 USD |
| | | | | 20.1-22.5 USD |
| | | | | 22.6-25.0 USD |
| 4 | Pre-pandemic (PP) habit | TypeLDPP | 1.4 | More than 25.0 USD What type of restaurants did you frequent during labor days? |
| | F | -); | | Fonda |
| | | | | Food truck |
| | | | | Cafeteria |
| | | | | Fast food |
| | | | | Fine dining |
| | | | | Other |
| 5 | Habit during pandemic (DP) | ConsLDDP | 2.1 | How many times a week do you consume in a restaurant during labor days? |
| | | | | I do not eat out at restaurants during labor days |
| | | | | 2 |
| | | | | 3 |
| | | | | 5 |
| | | | | More than 5 |
| 6 | Habit during pandemic (DP) | ClientLDDP | 2.2 | When consuming in a restaurant during labor days, how many people do you eat with? |
| | | | | 1 |
| | | | | 3 |
| | | | | 4 |
| | | | | 5 More than 5 |
| 7 | Habit during pandemic | SpendLDDP | 2.3 | How much do you spend per person on each of the restaurant purchases |
| | (DP) | - r | 2.0 | during labor days? 2 5 USD or less |
| | | | | 2.6-5.0 USD |
| | | | | 5.1-7.5 USD 7.6.10.0 USD |
| | | | | 10.1-12.5 USD |
| | | | | 12.6-15.0 USD |
| | | | | 15.1-17.5 USD 17.6-20.0 USD |
| | | | | 20.1-22.5 USD |
| | | | | 22.6-25.0 USD More than 25.0 USD |

| NUM. | VARIABLE | DIMENSION | # Q | QUESTION / ANSWERS |
|------|--|------------|-----|---|
| 8 | Habit during pandemic (DP) | TypeLDDP | 2.4 | What type of restaurants do you frequent during labor days? |
| | | | | Fonda Food truck Shopping mall Cafeteria Fast food Casual Fine dining Other |
| 9 | Pre-pandemic habit with friends and family (PPFF) | ConsFFPP | 3.1 | How many times a week did you consume in a restaurant accompanied by friends and family? |
| | | | | I did not consume in restaurants accompanied by friends and family 2 3 4 5 More than 5 |
| 10 | Pre-pandemic habit with friends and family (PPFF) | ClientFFPP | 3.2 | With how many people did you eat in a restaurant accompanied by friends and family? |
| | | | | 2 3 4 5 More than 5 |
| 11 | Pre-pandemic habit with friends and family (PPFF) | SpendFFPP | 3.3 | How much did you spend per person on each restaurant purchase accompanied by friends and family? |
| | | | | 2.5 USD or less 2.6-5.0 USD 5.1-7.5 USD 7.6-10.0 USD 10.1-12.5 USD 12.6-15.0 USD 15.1-17.5 USD 17.6-20.0 USD 20.1-22.5 USD 22.6-25.0 USD More than 25.0 USD |
| 12 | friends and family (PPFF) | TypeFFPP | 3.4 | What type of restaurants did you frequent when you hung out with friends and family? |
| | | | | Fonda Food truck Shopping mall Cafeteria Fast food Casual Fine dining Other |
| 13 | Habit during pandemic with friends and family (DPFF) | ConsFFDP | 4.1 | How many times a week do you consume in a restaurant accompanied by friends and family? |
| | | | | I do not consume in restaurants accompanied by friends and family I 2 3 4 5 More than 5 |
| 14 | Habit during pandemic with friends and family (DPFF) | ClientFFDP | 4.2 | With how many people do you eat in a restaurant accompanied by friends and family? |
| | | | | 2 3 4 5 More than 5 |
| 15 | Habit during pandemic | SpendFFDP | 4.3 | How much do you spend per person on each restaurant purchase |

| NUM. | VARIABLE | DIMENSION | # Q | QUESTION / ANSWERS |
|------|--------------------------------|------------|-----|--|
| | with friends and family (DPFF) | | | accompanied by friends and family? |
| | (BIII) | | | 2.5 USD or less |
| | | | | 2.6-5.0 USD |
| | | | | 5.1-7.5 USD |
| | | | | 7.6-10.0 USD |
| | | | | 10.1-12.5 USD |
| | | | | 12.6-15.0 USD |
| | | | | 15.1-17.5 USD |
| | | | | 17.0-20.0 USD |
| | | | | 20.1-22.3 USD |
| | | | | More than 25.0 USD |
| 16 | Habit during pandemic | | | What type of restaurants do you frequent when you hang out with friends |
| 16 | (DPFF) (DPFF) | TypeFFDP | 4.4 | and family? |
| | () | | | Fonda |
| | | | | Food truck |
| | | | | Shopping mall |
| | | | | Cafeteria |
| | | | | Fast Jooa Casual |
| | | | | Casuai Fine dining |
| | | | | Other |
| 17 | Purchase motivators | CurrentC | 5.1 | Do you currently continue to consume in restaurants? |
| | | | | NO Yes |
| 18 | Purchase motivators | Motivator | 5.2 | What were the reasons if you stopped eating out because of the COVID-19 |
| 10 | | | 0.2 | pandemic? |
| | | | | I became unemployed |
| | | | | I generally perceive restaurants as places without adequate disinfection. |
| | | | | I do not believe that the staff has adequate training to prevent the |
| | | | | transmission of COVID-19. |
| | | | | I preferred to limit my spending until I see a better overall economic |
| | | | | situation. |
| | | | | Many of the people I used to go out to restaurants with prefer not to go |
| | | | | I preferred take-out or delivery service |
| | | | | The experience is no longer satisfactory because of health protocols. |
| 10 | | D' (D | 5.2 | What makes you wary of eating in a restaurant during the COVID-19 |
| 19 | Purchase intention | DistReas | 5.5 | pandemic? |
| | | | | Fear of getting infected with COVID-19 Hydiene procedures are not correctly applied |
| | | | | Staff not properly trained so as not to contaminate the food and beverages |
| | | | | they prepare |
| | | | | Healthy distance is not applied (both restaurant staff and consumers). |
| | | | | The sanitizing items and products used are not of the right quality. |
| | | | | Many people do not follow the instructions to use masks. |
| | | | | The restaurants where I like to eat are not open yet. |
| | | | | Other |
| 20 | Motivadores de compra | ConfReas | 5.4 | what reasons would give you the confidence to go back to eating in a restaurant as you did before? |
| | | | | Being vaccinated against COVID-19 |
| | | | | The application of safety and hygiene protocols in production and service |
| | | | | processes. |
| | | | | filled to 100%) |
| | | | | End the pandemic |
| | | | | Other |
| 21 | Purchase intention | PIntention | 6.1 | After you are vaccinated or get treatment to cure COVID-19, will you go hack to eating as you did before the pendemic is a pertoyeer 2 |
| | | | | No |
| | | | | Yes |
| | | | | Maybe I would |
| 22 | Purchase intention | TReturn | 6.2 | you return to restaurant dining? |
| | | | | This week |
| | | | | 2 to 3 weeks |
| | | | | In 1 month |
| | | | | in 5 months |
| | | | | in o months |

| NUM. | VARIABLE | DIMENSION | # Q | QUESTION / ANSWERS |
|------|--------------------|---------------|-----|---|
| | | | | In 1 year or more |
| | | | | I will not consume in restaurants again |
| | | | | I do not know |
| 23 | Purchase intention | ActionR | 6.3 | What actions would the restaurant have to take in for you to decide to |
| | | | | consume there again, even if the risk of contracting COVID-19 is present? |
| | a : 1 1: | | | (open-ended question) |
| 24 | sociodemographic | Gender | 7.1 | Gender |
| | prome | | | Male |
| | | | | Female |
| | | | | Prefer not to indicate |
| 25 | Sociodemographic | Marital C | 7.0 | Manifal status |
| 25 | profile | MaritalS | 1.2 | Marital status |
| | | | | Married |
| | | | | Divorced |
| | | | | Single |
| | | | | Unmarried Widowed |
| | Sociodemographic | | | wildowed |
| 26 | profile | Age | 7.3 | Age |
| | | | | Under 20 vears old |
| | | | | 20 to 24 years old |
| | | | | 25 to 29 years old |
| | | | | 30 to 34 years old |
| | | | | 35 to 39 years old |
| | | | | 40 to 44 years old |
| | | | | 45 to 49 years old |
| | | | | 50 10 54 years old |
| | | | | 60 to 64 years old |
| | | | | Over 64 years old |
| 27 | Sociodemographic | Children | 74 | How mony shildren do you have? |
| 21 | profile | Clindren | 7.4 | How many emildren do you nave? |
| | | | | 0 |
| | | | | 1 |
| | | | | 2 |
| | | | | 5 4 |
| | | | | 5 |
| 28 | Sociodemographic | Education | 75 | Lavel of advention |
| 20 | profile | Education | 7.5 | Level of education |
| | | | | No education |
| | | | | Primary |
| | | | | Secondary |
| | | | | nigh school Technical |
| | | | | Bachelor's degree |
| | | | | Postgraduate |
| | | | | Truncated career |
| | | | | Studying |
| 29 | Labor profile | Labor | 8.1 | Are you currently working? |
| | | | | On temporary layoff due to COVID-19 pandemic |
| | | | | No Voc |
| | | | | The organization in which you work or used to work, which sector does it |
| 30 | Labor profile | TOrganization | 8.2 | helong to? |
| | | | | Entrepreneur |
| | | | | Private |
| | | | | Public |
| 31 | Labor profile | Income | 83 | Approximately, how much is your monthly family income (of those living |
| 51 | Labor profile | meome | 0.3 | in the same household)? ^a |
| | | | | 135.0 USD or less |
| | | | | 135.1-340.0 USD |
| | | | | 540.1-580.0 USD |
| | | | | 580.1-1/50.0 USD More than 1750.0 USD |
| | | | | |

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