

Determinant Factors for the Restaurant Sector Since the COVID-19 Pandemic: The Peruvian Case

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Abstract

The situation of the restaurants sector in Peru, since the COVID-19 pandemic, has varied in comparison to the rise that was expected in the sector before the sanitary crisis. Due to the massive contagions and the uncontrollable nature of the disease, government regulations were implemented, and the process of adjusting to the protocols for serving the public took time, affecting the progress of businesses in this area. This study focuses on this problem with the objective of identifying the most determining factors to promote the development and growth of the restaurant sector, in a stage that some call the new normality. To this end, a compilation of documents related to the subject was carried out and two rounds of open interviews were conducted with the participation of seven experts on the subject. Thereafter, the factors were identified and ranked according to their level of mobility and dependence in a matrix of impacts with the help of MICMAC software (Matrix of Cross Impacts Multiplication Applied to a Classification). The findings of the study show that the most influential factors of the system are compliance with the required protocols, reinforcement of the delivery service and training in hygiene and disinfection. These results serve as a basis for planning possible scenarios aimed at the future development of the sector, as well as local strategies that can be transferred to other contexts in the region.

Keywords

Restaurant Sector, COVID-19, Delphi, MICMAC and Determinant variables.

1. Introduction

Currently, the COVID-19 pandemic is still present in the world, the new coronavirus detected in December 2019, called SARS-CoV-2, and its variations are continuing to spread. Given the characteristics of this health crisis, the World Health Organization (WHO, 2020) and the health institutions of the respective governments, took actions to control - in some way - massive contagions and deadly consequences. The recommendations, since the first days, included travel restrictions, social distancing and strict protocols on public attention. In this context, restaurants were closed as a necessary measure in the interest of public health, resulting in negative effects on the restaurant sector, as well as on different sectors of the economy.

In fact, the situation of the restaurant sector in Peru, before the pandemic, was on the rise, with positive growth; however, after government regulations and measures were implemented, the progress of businesses in this sector changed. Services that were already flourishing in the last decades are forced to change their approach, facing new challenges with the recession caused by the coronavirus (Lakshmi and Shareena 2020). According to figures from Passport Euromonitor International (2021), consumer sales in the restaurant sector in Peru were increasing every year; however, from 2019 to 2020 they decreased by 48% and from 2020 to March 2021 they decreased by 29%. A reality that shows the reduction in sales revenue for this sector of the country's economy.

Also, the unemployment rate, due to the sanitary emergency, has increased; in recent years it has moved from an unemployment rate of 7.8% in March 2020 to 15.3% in March 2021 (Banco Central de Reserva Del Perú 2021). As a consequence of the quarantine periods in which many establishments had to close their doors or were forced to reduce staff.

Furthermore, most sectors are facing new cost categories, such as greater control of employees, extra shifts, safety practices and sanitation (Hailu 2020). This means that the environment is not favorable for the development of this

business line and its employees, considering that, in Peru, labor income makes up 20% of the regular monetary income of households, informal labor income is close to 50% and the rest comes from rents and transfers; from the State and the private sector (Jaramillo and Ñopo 2020).

Therefore, given these problems, it is important to investigate the situation of restaurants and to be able to determine their needs in the face of a pandemic.

1.1 Objectives

Considering the above, the present study aims to analyze this problem; mainly with the objective of identifying the most determining factors to promote the development and growth of the restaurants sector in this new normality, in which the protocols to avoid COVID-19 contagions have already been assumed. As a result of the analysis, there should be more information in this field, with data that will contribute to the improvement of the sector and the people involved in it.

2. Literature Review

The present pandemic of Covid-19, produced by a mutant strain of coronavirus SARS-CoV-2, has caused a severe economic, social and health crisis worldwide in the 21st century, never seen before. It started in China by the end of December 2019, in Hubei province (Wuhan city) and then cases were reported in numerous countries around the world (Maguiña Vargas et al. 2020). Because of this, SARS-CoV-2 is recognized as a global pandemic on March 11, 2020 by the World Health Organization (WHO) (Rosales Enriquez et al. 2021).

In Peru, the presence of the SARS-CoV-2 virus, which is the cause of COVID-19, was officially reported on March 6, 2020 (Barrutia et al. 2020). In mid-March 2020 and in view of the imminent infection of the population, the government implemented health policies similar to those taken by the Chinese government. Quarantine and social distancing measures were imposed (Córdova-Aguilar and Rossani 2020). This led to a paralysis of the national economy which, for example, contracted by 39.9% in April. As a result, economic sectors such as commerce, services, mining and construction were paralyzed (Ponce Villegas 2021).

This situation broke the chain of payments, because, by not generating income, businesses stopped paying their suppliers, financial institutions, taxes and generated unemployment (Rosales Enriquez et al. 2021). The COVID-19 pandemic had substantially affected the restaurant sector, especially businesses whose revenues come mainly from face-to-face service (Hakim et al. 2021).

The restaurant sector is one of the main sources of employment worldwide and generates important revenues. However, the sector is susceptible to catastrophes that destroy infrastructure and affect the movement of people, particularly the outbreak of pandemics and epidemics (Nhamo et al. 2020). A huge crisis has affected the restaurant business. These were closed due to pandemic and also the consumers avoided these places due to exposure and threat of COVID-19 (Vig and Agarwal 2021). In this situation, the restaurant sector was in a pretty difficult situation, and anticipated unprecedented levels of employment and revenue loss (Nhamo et al. 2020). Although intervention efforts, such as physical distancing, have minimized personal interaction and lessened the spread of the virus, they greatly jeopardized the survival of the restaurant industry (Yang et al. 2020).

This is why the current situation resulting from Covid-19 is forcing many companies to rethink their business models (Kelly et al. 2020). Therefore, in the middle of the pandemic, restaurants around the world have had to make drastic changes by focusing on offering take-away food services. When traditionally, location, environment and service are part of the experience diners were willing to pay for (Sánchez Valdés and Nava Rogel 2020).

Therefore, investments and adaptations made in organizations to face complex situations are reflected in organizational results, such as economic profitability, growth, productivity, efficiency, improvement in the quality of products and services, cost reduction, better relationship with suppliers, among others (De la Cruz-may and May-Guillermo 2021).

Therefore, confronted with a scenario devastated by the effects of COVID-19, it is necessary for restaurants to rethink their value propositions and restructure their internal processes in search of efficiency and effectiveness, based on factors that have proven to have a positive impact on organizational results, such as innovation in product, process and market (Sánchez Valdés and Nava Rogel 2020).

In this regard, (Lakshmi and Shareena 2020) suggests that, in the post-COVID-19 environment, the following aspects should be considered: 1. health and safety, i.e., hygiene and sanitation of the restaurant; 2. financing, to continue operations; 3. technology, essential in times where digitization is present at all times, places and conditions, as it speeds up and facilitates the work of all operators. Customers, for their part, must receive all types of information leading to placing orders, knowing the menu, etc., and be treated with kindness and in hygienic and safe conditions. It is important that the collaborators or workers of the restaurants are updated in the "Sanitary standard for restaurants and services in times of COVID-19" (Ministry of Health 2021).

Likewise, Madeira et al. (2021), established strategies to be adopted in the face of the concern for maintaining jobs, which focus on customers, communication strategies and types of service; promoting take-out food service. The objective is to overcome with a lot of willpower in these complicated circumstances.

In this line, the Delphi method is a technique for analyzing and predicting on a subject, in relation to interests; it is mainly based on the systematic collection of expert judgment on a problem with the aim of achieving consensus based on the differences and coincidences between individual assessments (Sánchez Valdés and Nava Rogel 2020). In this process of communication and feedback, information about an object of study is analyzed and shared; and for this purpose, a series of particular methodological resources are adopted, derived from the incorporation of various fields, between subjective and objective techniques. Experience is transcendent, as well as the opinion of experts (Guarín Salinas et al. 2013).

This method contemplates a series of phases that are formed and consolidated by a sequence of actions to be carried out that guarantee the quality of the results and that can be seen in Figure 1.

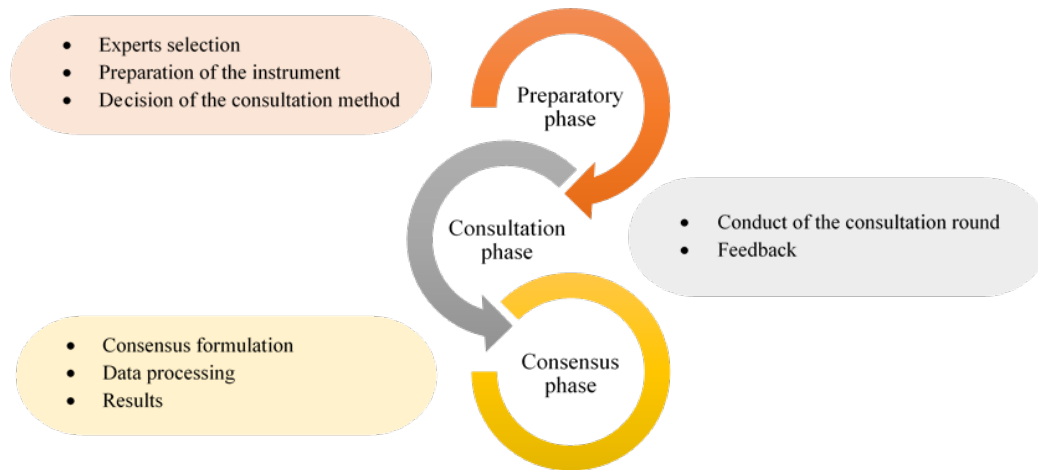


Figure 1. Delphi Method Phases

Also, the MICMAC method is of interest for the present work. Since its objectives are to describe a system with the help of a matrix that connects the components of the system, it also aims to identify the influential and dependent variables of the study, at the same time it aims to carry out a collective reflection of the research group and it also reduces the complexity of the system to specific points (Arango Morales and Cuevas Pérez 2012).

For this purpose, it is essential to apply the three phases that are used in the MICMAC method:

1. List of variables: The variables, already identified through previous studies, are listed and it is mentioned according to Godet's prospective analysis laboratory that it should not exceed 70-80 variables, on the other hand, it is possible to carry out studies with around 10 variables. These variables must be validated by a group of experts who help to verify the meaning of the variables, as well as the elimination of some of them, all through the consensus of the experts (Arango Morales and Cuevas Pérez 2012).
2. Description of relationships between variables: To carry out this phase, the variables are first listed in a table called "structural matrix of variables", each of the variables must be found at an intersection with each other

variable. After the table has been drawn up, it is filled in, after identifying the experts and requesting their participation in the study; the matrix (table) is filled in qualitatively, and for each pair of variables the following question is asked:

Is there a direct influence relationship between variable *i* and variable *j*? If not, we score 0, otherwise we ask whether this direct influence relationship is weak (1), medium (2), strong (3) or potential (P) (Godet 2007).

3. Identification of key variables with the MICMAC: This phase consists in identifying key variables, that is, essential to the evolution of the system, first by a direct classification, then by an indirect classification (called MICMAC for cross impact matrices Applied Multiplication for a Classification). This indirect classification is obtained after the matrix has been upgraded (Godet 2007).

The comparison of the hierarchy of variables in the different classifications (direct, indirect and potential) is a process filled with lessons to be learned. It makes it possible to confirm the importance of certain variables, but also to reveal certain variables that play a major role by virtue of their indirect actions (and which the direct classification did not show) (Godet 2007).

3. Methods

3.1 Application of Delphi Method

As mentioned before, this method involves three phases, which were applied in this research through a sequence of steps as shown in Table 1.

Table 1. Sequence the steps applied for the Delphi Method

| Phases | Sequence |
|--------------------|--|
| Preparatory phase | Characterization of localized experts |
| | Measurement of the experts' profile |
| | Classification of the selected experts |
| | Elaboration of survey questions |
| Consultation phase | Sending the survey to the experts (Round 1) |
| | Analysis of the first survey |
| Consensus phase | Analysis of the second survey (Round 2) |
| | Determination and explanation of the factors highlighted |

- 1) **Preparatory phase:** The first phase, called the preparatory phase, consisted of the formation of the group of experts, the design of the survey and the determination of the way in which it would be consulted. According to the methodology to be applied, there are three types of experts: specialists, those affected and facilitators. The specialists are those who provide knowledge, experience, objectivity and predictive capacity; the affected are those experts who are involved in the area under study (Guarín Salinas et al. 2013).
- 2) **Consultation phase:** The second phase, called consultation phase, is aimed at carrying out successive consultations. In other words, the first round is carried out and then the feedback or second round. The survey will be carried out in two rounds, where the experts receive the responses of all the participants before the second round, in order to contrast their criteria with those of the group response and to be able to give their judgment again.
- 3) **Consensus phase:** The third and last phase is called the consensus phase, in which the convergence of ideas is developed and where the set of variables related to the problem studied is known. In applying the Delphi method, we began by locating a group of seven experts made up of representatives of private companies that belong to the restaurants sector and that were affected by the COVID-19 pandemic, in addition to being currently in the process of reactivating their business, thus also segmenting those that operate in two important districts of the city of Lima (Peru).

The research group established the necessary plan to locate and select the team of experts who have the possibility of collaborating during the research process. These are shown in Table 2 below.

Table 2. Experts characterization

| Cod. | Position and experience |
|------|--|
| 1 | Head of HR in important companies of the sector in management positions. |
| 2 | Restaurant partner with a background in international business. |
| 3 | Restaurant manager with more than 10 years in the sector. |
| 4 | Restaurant manager with a background in commercial cocktail making |
| 5 | Restaurant owner with training in professional cuisine |
| 6 | Restaurant manager with more than 10 years of experience in the industry |
| 7 | Restaurant owner with pastry training |

Thereafter, in the Table 3, an instrument was designed to measure the profile of each of the selected experts. Its structure contained three categories of analysis: (I) personal qualities, (II) professional qualities and (III) knowledge of the restaurants sector. Also, a score was established to classify the results obtained, which is shown in Table 4. Once the evaluation of the scores was completed, it was possible to determine the level of importance of the experts for the research.

Therefore, it was decided to choose seven experts, which is considered an optimal number according to The Rand Corporation, which determines advisable to select a minimum of seven and a maximum of thirty experts for this phase (Torrado and Reguant 2016).

Table 3. Measuring the profile of experts

| Categories | Considered aspects | Score |
|---------------------------------|--|-------|
| I. Personal qualities | Higher education | 3 |
| | Businessman in the restaurants sector | 2 |
| | Living in Lima for more than five years | 1 |
| II. Qualities of their position | An important position in the business | 3 |
| | Position held for more than 3 years | 2 |
| | Years of restaurant operation for more than 5 years | 2 |
| III. Knowledge in the sector | Knowledge in the implementation of sanitary measures | 2 |
| | Knowledge of factors involved in the improvement of the restaurant | 4 |
| | Knowledge of competitiveness in the restaurant sector. | 3 |

Table 4. Classification of the selected experts

| Cod. | Profile Score | Classification | |
|------|---------------|----------------|------|
| | | Excellent | Good |
| 1 | 21 | X | |
| 2 | 14 | | X |
| 3 | 19 | X | |
| 4 | 14 | | X |
| 5 | 15 | | X |
| 6 | 19 | X | |
| 7 | 14 | | X |

4. Data Collection

4.1 Data Collection Questionnaire

In order to elaborate the survey, seven open-ended questions were proposed, so that the experts could express and expand on their opinions in order to obtain more detailed answers that would be more detailed in the aspects studied. The questions were based on the documentary review carried out and on the identification of the most important aspects related to the research topic, such as the transformation and innovation carried out in the companies during the pandemic, the perspective of the companies with respect to the measures taken by the government due to the sanitary emergency and the great reduction of sales that has hit the restaurant sector. The survey was carried out in two rounds, where the experts received the responses of all the participants, in order to contrast their criteria with those of the group response and to be able to give their judgment again. Finally, to finalize the first phase of this methodology, the decision was made to use e-mail as a means of consultation.

4.2 Analysis of the First Survey

The results we obtained from the first survey showed the following analysis: 28.6% of the experts have an average of 15 years of experience in the field, another 28.6% have an average of 34 to 30 years and the remaining percentage has been in the restaurant business for one year. This guarantees greater reliability in terms of the answers provided for a correct procedure of the research. In regard to the position they hold, 1 area manager, 3 administrators, 2 owners and 1 partner were found. Likewise, it was found that 28.6% of the experts belong to the pollerías category and the remaining percentage is divided between the sectors of pizzerias, fish and seafood, Asian food, oriental food, soups and Andean food.

All the experts agree that the different modifications made to their respective establishments cover the following points: COVID-19 protocol, modifications in customer service (delivery, customer service, etc.), restructuring of sales strategies in order to avoid major impacts on their profit margins, reduction of capacity and use of personal protective equipment (PPE). Regarding the impact on the personnel led by each of the experts, several points were found, such as the reduction of schedules, the reduction of personnel to an average of 75%, the transfer of personnel to other service areas (delivery, packer, prevention, etc.), the constant training and follow-up of biosecurity controls already implemented by the measures established by the government and the training of personnel according to the new assigned area that was not related to their performance in the area where they worked previously.

Regarding the analysis carried out by the group of experts on the increase in the unemployment rate within the restaurant sector, it became evident that according to the measures that have been implemented, the unemployment rates have shown a slight reduction due to the fact that some restaurants have started to be part of this economic stimulation initiated by the government. On the other hand, they show a position of a very slow gradual progress. However, within all that was experienced during the year 2020 where not many jobs could be generated, this was a motivating scenario within the labor market. Once mentioned the measures taken by the government, all experts show a slight confusion about these measures. However, they consider that it has generated a greater order and discipline

within the sector, which has been able to generate a slight benefit within their businesses and has been able to support the new reactivation of the sector.

The experts evidenced a clear evidence of changes in the habits of customers in their establishments because, due to the spread of the virus, there was a decrease in customer confidence in the consumption that they had either within the establishment or ordered by delivery. However, they were also able to notice an improvement in the recovery of this confidence on the part of the customer due to the biosecurity measures that were implemented, which had a direct impact on their sales. Regarding sales as a result of the pandemic, 42.9% indicated that they were reduced between 41% and 60%. Another 42.9% reported that their sales were affected by between 21% and 40% and the remaining 42.9% reported that their sales were affected by between 81% and 100%.

4.3 Analysis of the Second Survey

After analyzing the first results, a second survey was presented to the seven representative experts in order to achieve the consensus desired by the research group. With respect to the results, it was possible to identify the factors most related to the impact of COVID-19 in the restaurant sector. These were defined by coding the open-ended questions, which consisted of gathering most of the ideas put forward by the panel of experts that followed the same pattern or were very similar. On this basis, it was possible to classify and group them into categories or factors for the subsequent application of the MICMAC method of structural analysis. The factors to be taken into account for the structural analysis are explained below.

F1: Modifications to the infrastructure of the restaurant. Related to the distribution of tables and customers in the lounge: numbering of tables to facilitate location and avoid crowds; distance between the edges of the tables of 1.5 m, when diners have their backs to each other or in any case the implementation of physical separators; family groups of eight people are allowed to share a table in the lounge and groups of two people, sit together at the bars; corridor areas or high traffic areas of staff and customers with 2 m of space (edges of the tables in the lounge, among others).

F2: Significant reduction of personnel. Concerning the number of personnel, which is adjusted according to circumstances, collaborators can be moved to suspension or some of them can be dispensed with. Contracts must be reviewed for renewal or reduction of schedules.

F3: Compliance with the required protocols. Regarding compliance with the regulations established for restaurants, in times of pandemic, by governmental health institutions. The technical data sheets published for the service in the dining room, water supply services, sanitation, solid waste disposal, hygiene services and dressing rooms, service station, etc. In addition to arrangements and obligations for administrative and operational personnel, third parties, clients, and means of payment.

F4: Focus on reinforcing delivery service. The delivery service to customers is important, based on a touch-free experience and the implementation of an exclusive area for this service, or the transfer of restaurant staff to the delivery service.

F5: Innovation in the face of a pandemic. It involves ideas and creativity to take innovative actions in the restaurants, complementary activities to be put into practice, for example, a robot to take the dishes to the customers' table and therefore avoid contact between people.

F6: Training on hygiene and disinfection. It is essential to follow the habits of hand hygiene, surface disinfection, disinfection of fresh products, disinfection with hot water, among others. Actions necessary to prevent the spread of COVID-19.

F7: Uncertainty regarding the post-pandemic period. It refers to the mood observed, the pessimism of the experts with respect to the slow process of recovery in the sector; interest in the unemployment rate following the downward trend. On the other hand, there is greater confidence in customers for consumption in the restaurant.

F8: Adapting to new consuming habits. Changes in customers' eating habits are visible, for example, greater consumption of fruits and vegetables, avoidance of junk food and industrialized beverages, selection of meals, avoidance of confectionery products, etc., and the choice of products recommended to fortify the immune system.

F9: Number of measures introduced by the government for the sector. Each restaurant that was willing to return to its service functions must rigorously comply with the rules published and controlled by the corresponding institutions; if it did not comply, it was penalized, and generated conflicts in the industry itself, whose objective was to remain with the service following the rules, even though at the beginning there were certain gaps or, in some cases, they were unnecessary.

F10: Financial concern. As a consequence of the shutdown period and the time it took to implement the protocols, many companies in the restaurant sector were economically affected; the owners, employees and people linked to

these businesses went through difficult times and had to depend on savings to pay salaries, suppliers and external services. Although the crisis was cushioned by the Reactiva Perú economic program, the difficulties still continue.

F11: Increased customer confidence. The perception of security is perceived by strictly complying with the protocols, which has an impact on the trust in the brand.

5. Results and Discussion

5.1 Numerical Results: Application of the MICMAC method

In order to define a logical and significant relationship between the variables with the information already validated by the experts after the application of the Delphi method, a structural analysis was carried out using the MICMAC tool. This method is characterized by relating the variables highlighted in a set of direct and indirect matrix relations. The progress of this method is shown in Table 5.

Table 5. Progress of the structural analysis

| Steps | Definition |
|-------|--|
| 1 | Direct impact relational matrix |
| 2 | Map of influences and dependencies between system variables. |

The purpose of Step 1 is to verify the degree of impact and establish causal relations between the factors described above. For this purpose, the selected experts collaborated. Therefore, when preparing the matrix and taking into account that each factor in the column must be found at a crossroads with each factor in the row, the experts continued with the rating of the influence of each factor on the others, by means of an estimate on the following scale: 0 = Null, 1 = Weak, 2 = Moderate, 3 = Strong. The following question was asked for each variable pairing: Is there a direct influence relationship between variable x and variable y? If not, a null influence is considered (0), otherwise it is asked whether this direct influence relationship is weak (1), moderate (2), strong (3) (Godet, 2007).

This resulted in Figure 2, a single matrix already agreed upon and in which the causal relations between the factors can be observed.

| | F1 | F2 | F3 | F4 | F5 | F6 | F7 | F8 | F9 | F10 | F11 |
|-----|----|----|----|----|----|----|----|----|----|-----|-----|
| F1 | 0 | 0 | 3 | 1 | 0 | 1 | 0 | 0 | 0 | 3 | 3 |
| F2 | 0 | 0 | 2 | 1 | 0 | 1 | 3 | 0 | 1 | 3 | 0 |
| F3 | 3 | 1 | 0 | 3 | 2 | 3 | 0 | 2 | 0 | 3 | 3 |
| F4 | 0 | 2 | 3 | 0 | 2 | 3 | 0 | 3 | 0 | 3 | 3 |
| F5 | 3 | 0 | 1 | 3 | 0 | 3 | 1 | 2 | 0 | 3 | 2 |
| F6 | 1 | 2 | 3 | 3 | 3 | 0 | 1 | 2 | 1 | 3 | 3 |
| F7 | 0 | 2 | 2 | 0 | 2 | 0 | 0 | 1 | 0 | 3 | 0 |
| F8 | 2 | 0 | 0 | 3 | 1 | 2 | 1 | 0 | 1 | 2 | 2 |
| F9 | 3 | 3 | 2 | 2 | 2 | 2 | 3 | 1 | 0 | 3 | 1 |
| F10 | 1 | 3 | 2 | 3 | 2 | 3 | 3 | 1 | 0 | 0 | 0 |
| F11 | 3 | 0 | 3 | 3 | 1 | 3 | 0 | 3 | 0 | 0 | 0 |

Figure 2. Causal relation matrix

5.2 Graphic Results

When the values of the matrix were inserted into the MICMAC software, the result was the diagram of influences and dependencies between the factors of the system shown in Figure 3.

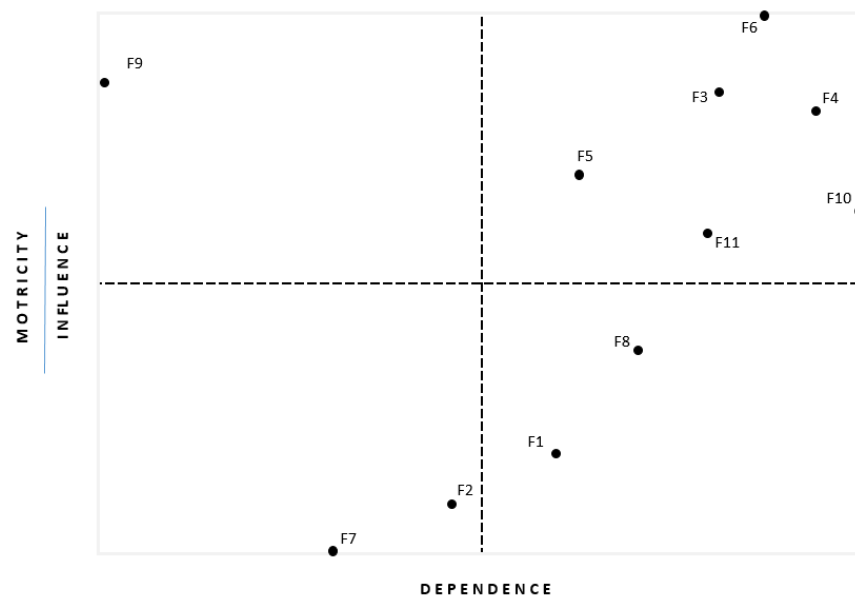


Figure 3. Map of influences and dependencies between the system factors.

In this way, the position of each factor in the map allowed to obtain more clarity about the system, since according to the quadrant where the factors are located, they can be characterized. The meaning of each quadrant is described below:

- A) **Area of power variables:** Power variables, also known as input variables, are located in the upper left quadrant and are very influential and not very dependent variables. They become important because a large part of the system depends on them, if they are properly controlled. This zone is represented by the measures established by governments for the sector (F9).
- B) **Area of conflict variables:** Conflict variables or key variables are located in the upper right quadrant. They are very influential and very dependent variables at the same time, since an action on them has an effect on the other variables. In this zone we find the focus on reinforcing delivery service (F4), training in hygiene and disinfection (F6), innovation in the face of the pandemic (F5), financial concern (10), greater confidence on the part of clients (F11) and, the most representative, compliance with required protocols (F6).
- C) **Autonomous variables area:** Located in the lower left quadrant, autonomous variables are considered excluded because they express little influence and dependence. In other words, they do not have a significant impact on the development of the variables or the system, nor are they influenced by the variables themselves. In this area, the considerable reduction of personnel (F2) and the uncertainty regarding the post-pandemic period (F7) are considered.
- D) **Output variables area:** Outcome variables, as they are also known, are located in the lower right quadrant. They have low influence and dependence, since they are not a fundamental part of the evolution of the system; however, they are particularly sensitive to the development of power and/or conflict variables. Modifications in the restaurant infrastructure (F1) and adaptation to new consumption habits (F8) are considered in this area.

5.3 Proposed Improvements

Considering that there are different techniques and procedures that have been applied in recent years, the Delphi method mainly comprises collective and committed reflection processes on a specific topic with an objective, such as determining the factors related to the impact of COVID-19 in the restaurant sector in the Peruvian case.

Consequently, it is advisable for future applications of the Delphi method to have a greater number of experts on the panel and not to limit the number of rounds to two, since the aim is to achieve a greater degree of consensus on most of the factors raised and to increase the quality of the results, without questioning the satisfactory level of the results.

5.4 Discussion

Based on the results of this research, it can be determined that the factors of training in hygiene and disinfection, compliance with required protocols and improving delivery service are crucial to the system because of their high level of mobility and dependence. Decisions based on these factors are fundamental for the progress in the restaurant sector in this time of pandemic and those that continue.

In the first instance, these data indicate that it is necessary to maintain training in hygiene and disinfection issues (F6) such as good hygienic conditions in services, food handling, customer service, hand washing, social distancing, surface disinfection, packaging and many others, the objective being that customers perceive safety in the services and products offered. Since consumers may assume that the food served in the restaurant is more dangerous due to the exposure of food to more employees and customers and the surfaces they touch (Byrd et al. 2021).

A research in Brazil points out that with the intention of adopting actions to reduce the risk of food supply service stoppage, the State Secretary of Agriculture, Livestock, Fisheries and Supply of the State of Rio de Janeiro established, on March 16, the Extraordinary Contamination Prevention Program. This action establishes the need to join the program and notify all companies that directly or indirectly provide services to the Supply Centers, especially entities that produce and supply food and those that sell, provide services and use the center. Among the measures established, the following stand out: avoiding personal contact between collaborators, giving preference to the use of communication technologies; having meals at their own workstation; restricting the presence of collaborators at the headquarters and notifying suspected cases (Oliveira et al. 2020). Also, in the same study, the Association of Bars and Restaurants in conjunction with the Brazilian government published guidelines for employers regarding the care of delivery hygiene (Oliveira et al. 2020). Thus, it would explain the importance of these actions in order to improve the service to consumers and it would be very convenient that Peruvian government agencies carry out similar training programs oriented to businesses in the sector investigated in this research.

On the other hand, as it is well known, at the beginning of the COVID-19 pandemic, countries adopted measures based on the recommendations of the WHO, which published studies concerning the control of the virus; although there was no vaccine, even at that time, guidelines were set to try to control the massive spread of the disease that became deadly, generating alarm and despair in the population. In this sense, it is expected that following these standards will play a fundamental role in supporting public safety and business sustainability. Such is the case in Taiwan, where it is evident that restaurant owners recognized that the government's plan to contain the virus has minimized the negative impacts on the economy, helping their businesses to avoid closures and remain sustainable during the outbreak (Gkoumas 2021). Therefore, compliance with the required protocols (F3) is essential to carry out the sector's activities in the country and promote growth. Both the Ministry of Health (MINSAs) and its dependency, the National Institute of Health (INS), have been presenting a series of standards, which are constantly updated.

In addition to having research to help create protocols, guidelines and techniques to be implemented in facilities efficiently by all involved will cooperate with the crisis in the sector, it is vital that a balance be struck between government readiness, business compliance and public coherence for the effective implementation of any program. This can be proven by indicating that the implementation of the government plan in Taiwan relied heavily on the ability of the Taiwanese public to demonstrate social responsibility, collectivism compliance; they assert that the continuous cooperation between the various stakeholders, the willingness of the public to respect and follow the restrictions, and the ability of the central administration and local authorities to coordinate and monitor the crisis have contributed to the success of the Taiwanese crisis management plan, ultimately preserving the viability of the entire sector (Gkoumas 2021).

According to Touch Task data, in 2021, delivery service in the country grew 250% during the COVID-19 pandemic (Lozano 2021). It is important to adapt to this new normality, as delivery will continue to grow, not only in the country but globally. According to data from Statista (2019), by the end of 2020, it was projected that the food delivery service segment would reach revenues of approximately 136 431 million dollars, while by 2021, the segment is expected to experience a growth of 11 percentage points; in addition, the number of users of these platforms is expected to reach 965.8 million by 2024. Also, it is claimed that delivery services are useful during a pandemic such as COVID-19

because it minimizes the contact between customers and restaurant employees and allows customers to enjoy their favorite restaurant food at home, thereby giving the restaurant industry, which has been severely hurt, another chance to thrive and evolve (Hong et al. 2021). This is proven by a study that through regression functions to differentiate the personal characteristics of customers who used the delivery service, determines that customers who purchased food by delivery were linked with lower observed perceived threat (Mehroliya et al. 2020). Therefore, it is worth noting that boosting the delivery service (F4), which also influences the performance of novel, well-thought-out activities for businesses in this sector to initiate and continue providing their services will be the first step towards the reactivation of the restaurants.

6. Conclusion

Different factors affecting the restaurant sector in Peru as a consequence of the COVID-19 pandemic are presented. After analysis, the results show that factors 3, 4 and 6 (compliance with required protocols, reinforcement of delivery service and training in hygiene and disinfection) are the most representative of the conflict area (upper right quadrant). This makes them the most important factors for the restaurant sector in the sanitary situation and should be considered by the managers of these businesses in order to act on them strategically. To a lesser extent, factors 5, 10, 11 (innovation in the face of the pandemic, financial concerns and increased customer confidence), also located in the conflict area, should be recognized by the sector for their evolution. Therefore, with a high number of factors in the conflict area, more than 50% of the total number of factors, which generate a high degree of mobility and dependence, it follows that the map of influences and dependencies presents an unstable system. In this scenario, any decision on one of the factors has repercussions on all the others and turns back on itself.

Therefore, the main factors that influence the improvement of the operations of several restaurants in pandemic are identified, as well as the less influential factors for the recovery of these businesses.

Finally, the identification of factors aims at establishing elements of judgment for a strategic planning of future scenarios, leading to an eventual prospective analysis oriented to the development of the restaurant sector in the studied context, which can be transferred to other scenarios in the region.

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