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Analysis of the Impact of Covid-19 on the Municipal Markets of Lima Cercado 2020

Análisis del Impacto del Covid-19 en los Mercados Municipales de Lima Cercado 2020

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ABSTRACT

The activities of the markets were affected by the pandemic; the research "Analysis of the impact of Covid-19 in the municipal markets of Lima Cercado, 2020" had as objective, to explain the impact of Covid-19 in the municipal markets; where the study was focused and applied the actions and sanitary measures that were decreed and implemented by the national government before the state of national sanitary emergency; promoting its compliance by the traders and the population in general. The methodology was a basic type of study, with a qualitative approach; the research design was the case study; the traders of the Ramón Castilla municipal market, officials, professionals, technicians of the Municipality of Lima and the user public participated in the interview; for the analysis, data triangulation was used. The results showed that the emergency sanitary actions and measures were effective, despite the fact that small groups showed reluctance and resistance to this change. He concluded that the sanitary actions and measures partially helped to contain the spread of Covid-19; the most outstanding aspect was the coordination between the merchants and the municipal administration, allowing tolerance and teamwork with responsible and positive attitudes.

Keywords: Pandemic, Covid-19, health emergency.

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RESUMEN

Las actividades de los mercados se vieron afectadas por la pandemia; la investigación “Análisis del impacto del Covid-19 en los mercados municipales de Lima Cercado, 2020” tuvo como objetivo, explicar el impacto del Covid-19 en los mercados municipales; en donde se enfocó el estudio y se aplicó las acciones y medidas sanitarias que fueron decretadas e implementadas por el gobierno nacional ante el estado de emergencia sanitaria nacional; promoviendo su cumplimiento por los comerciantes y la población en general. La metodología fue un tipo de estudio básico, de enfoque cualitativo; el diseño de investigación fue el estudio de caso; participaron en la entrevista los comerciantes del mercado municipal Ramón Castilla, los funcionarios, profesionales, técnicos de la Municipalidad de Lima y el público usuario, para el análisis se utilizó la triangulación de datos. Sus resultados demostraron que las acciones y medidas de emergencia sanitaria fueron eficaces, a pesar que pequeños grupos mostraron renuencia y resistencia ante este cambio. Concluyó, que las acciones y medidas sanitarias ayudaron parcialmente a contener la propagación de la Covid-19; lo más resaltante fueron las coordinaciones entre los comerciantes y la administración municipal; permitiendo la tolerancia y el trabajo en equipo con actitudes responsables y positivas.

Palabras clave: Pandemia, Covid-19, emergencia sanitaria.

1. Introduction

The world population is suffering morbidity and mortality due to the Covid-19 pandemic, an infectious disease caused by SAR-Cov-2; discovered in Wuhan, China at the end of 2019. The World Health Organization alerted about the rapid spread, evidencing the exponential increase of those infected with Covid-19, qualifying it as a global pandemic that continues to affect many countries around the world. According to Intini et al (2021) indicated that in Latin America, the measures taken by municipalities to protect the population from contagion considered actions that limited the operation of supply chains, such as the closure of schools and colleges (over 80% of all cities, regardless of size), the closure of restaurants and food services, as well as restrictions on the street sale of food in public spaces, the use of public transportation, and the operation of markets and distribution centers (p. 3).

The operation and management of municipal markets during this exceptional scenario caused by Covid-19, originated an unprecedented health crisis that posed a great threat to supply chains, resulting in a social and humanitarian

emergency. It revealed the fragility of our society, which is more evident, that the effects of the pandemic will be long-lasting and will change the way of working and the functioning of supply chains. Food supply has been one of the most affected, generating greater demand for staple products, raising prices and causing supply to suffer ups and downs.

Markets generate transformation in the city and in the lifestyle of the inhabitants, as well as a great impact on their urban environment. Braudel, F. (1992). "Braudel says that there can be no society disconnected from its market logics saying that commerce can generate tension and create rhythm in the city". One of the causes of tension and disorder in the environment is informal commerce; in this new scenario, the municipal markets suffered a decrease in their capacity, their hours were shortened, biosecurity guidelines against Covid-19 were implemented, such as social distancing, use of masks, gloves and disinfectants such as alcohol for them and for their customers, cleaning and disinfection of their stalls every day, organizing for disinfection, disinsectisation and rat extermination of the market as a whole every month. The constant review of the negative rapid tests, as a prerequisite to develop their activities, the increased use of plastics for the biosafety barrier, as well as disposable cups, plates and cutlery, all this meant a cost; many stalls were closed because they were not authorized tours, or because their merchant drivers were vulnerable population; the obligation to avoid crowding in some passages and food sector was not always fulfilled, sectors that became risk factors for Covid-19 contagion.

Not everyone was able to adapt quickly to the exceptional situation, it was quite a challenge, the delivery of prepared food was by delivery; the order of services and products increased through telephone calls, few incorporated new alternative purchasing channels to the traditional ones. Sanitary surveillance of food sanitary conditions lagged behind; priority was given to compliance with biosafety guidelines to contain Covid-19. Control and monitoring was not carried out, so that food was sold without sanitary registration or a referral guide, with expired dates and poor storage practices. The refrigeration equipment did not work, and many stalls lacked drinking water. The drainage system was constantly collapsing, producing sewage leaks. It is logical to think that the traders preferred economic reactivation to health care. Markets are relevant to know the vitality, local culture and economy of the city, their contribution and influence on the population can generate routines and ways of life around trade. (CNN Español, 2020).

International research was evaluated as Gonzalez (2021), in his research "Analysis of the impact of Covid-19 on the supply chain of the distribution sector in Spain",

concluded that the objectives proposed at the beginning of the project were mainly concentrated in three areas. Firstly, the identification of the sector's *Best Practices in the* management of the pandemic, which has been possible thanks to the analysis of the response of the distribution sector to the challenges and the interviews carried out with professionals with extensive knowledge of the sector. Secondly, it has been confirmed that the Covid-19 crisis has indeed accelerated the transition to e-commerce already observed in recent years. The penetration of the online channel has taken a leap forward and has consolidated to levels that the distribution sector was not expecting for another three or four years, significantly reducing the gap with other European countries. Finally, the aim was to analyze changes in trends in the distribution sector and forecast future behavior. Based on the diagnosis of the situation before, during and immediately after the pandemic, five major trends have been identified that are considered to shape the future of the sector in the coming years (p. 63).

Cruz (2020), in his research work "Los mercados tradicionales de la Ciudad de México ante la peste de nuestro tiempo, Covid-19: Respuestas en Municipios, Regiones y Áreas Metropolitanas"; that one of the strategies on a global scale is to reduce the contact between people, gives an account of the process that the public markets of Mexico have experienced, within the framework of the Covid-19 pandemic. Some characteristics of Mexican public markets were highlighted, emphasizing their importance in our society and the link between them and the origin of the pandemic, as well as the central role they really have. On the other hand, answers, strategies, and elements that can have an impact on the improvement of the markets were presented. Methodologically, the starting point was what the French historian Marc Bloch defined as 'problem history'. Given the current conditions for field work, the research is based fundamentally on indirect sources (p. i). He concluded to invest in the infrastructure of the markets. Within the framework of Covid-19, it should be ensured that they have at least water and ventilation systems. One of the main strategies is hand washing, but most of the markets suffer from water supply, in delegations such as Iztapalapa the shortage is specific to the district, and the Central de Abastos is located in that delegation. Implement ventilation systems; it is known that even in closed spaces Covid-19 loses effectiveness if there is good ventilation. It will be necessary to allocate resources for this purpose. There do not seem to have been any awareness and training campaigns in the markets for the correct use of mouth covers, hand washing and social distance, among others. These are the main elements that the bulk of the population has to face the pandemic, but it is something that does not seem to be relevant for the authorities of the markets

themselves. On the other hand, the application of maximum capacity, a measure that seeks to guarantee social distance. If the markets remain full and at certain times are overflowing, then all other strategies will be of little use. Apply online service development. Social networks and digital applications are playing a very important role in supply, and although they have already begun to be used in markets, they have yet to mature and cover a greater number of markets (p. 13). Asanta & Molinos (2020), in their research article explored Ghana's preventive measures to stop the spread of Covid-19 disease among its population and the socio-economic impact of these measures in urban markets. It argues that Ghana's Covid-19 approach in markets was characterized by improving hygiene conditions by disinfecting all markets, closing markets to reinforce social distancing between traders and the consuming public, imposing a blockade to decongest densely populated markets. However, the micro geographies of Ghana's markets complicated the implementation of these preventive measures. The socio-economic impacts of the Covid-19 pandemic on markets were evident in increased food prices, economic hardship associated with the closure directive, and forced relocation and decongestion exercises to reinforce social distancing among traders. The hostile nature of municipal authorities and implementation of Covid-19 preventive measures in the markets is similar to how they sought to decongest urban centers prior to the emergence of Covid-19 (p. 171).

Gascón (2020), in his research "Covid-19, State of Emergency and Family Farming in Spain: Rural Markets in Barcelona and Self-consumption Orchards in Alcaine (Teruel)", indicated that the state of emergency decreed by the Spanish government due to Covid-19 pandemic first semester of 2020, established that basic activities should be maintained; among them, those related to food production and distribution; however, occupations proper to family farming and agroecological production were restricted. Based on the analysis of two cases (farmers' markets in Barcelona and a self-consumption garden in Alcaine, Teruel), the article shows that the regulations were not applied homogeneously in the territory. It depends on the interpretation of government delegations, the interests and influence of decentralized institutions in those delegations and the organizational capacity of civil society. The emergency showed that in the central government and other decentralized institutions an urban-centric vision persisted that prioritized the conventional agro-food model (p. 177).

Paulo & Araujo (2021) who in their research entitled "Will Covid-19 affect food supply in distribution centers in Brazilian regions affected by the pandemic" Background: there is currently great concern about the consequences of Covid-19

on health and also on the global food supply. Ceasas are important food distribution centers in Brazil that are of great economic importance in the Brazilian agribusiness. The objective was to verify the possible effects of the pandemic on food supply chains. Data were collected from the websites of the institutions and subjected to analysis of variance and Tukey's test ($p \leq 0.05$), principal component analysis and Cluster analysis (Euclidean distance). It concluded that the regions affected by Covid-19 showed large variations in the prices of products sold in the Ceasas studied. Statistical analysis showed that food prices depended on the regions and the period in which they were marketed. In general, the month of March had the greatest impact on the consumer's pocket. Strengthening Ceasas as short supply chain food supply platforms is essential to ensure domestic food security during crises such as the one caused by the new coronavirus (p. 377).

Giordani & Bezerra (2021) in their research entitled "The pandemic health crisis and its implications for food and nutrition security in Latin America", explained that health inequalities are directly linked to food and nutritional profile; hunger and malnutrition, as well as overweight and obesity, increase in proportion to poverty. In the Covid-19 current pandemic scenario, the social isolation measures implemented in several countries to avoid the collapse of health systems impose new rhythms on people's lives and their daily routines, which implies a reorganization of their vital structure and the activities necessary for their maintenance and reproduction. The restriction of circulation with the requirement to prepare food within the home imposes a food planning with options with a certain degree of industrial processing. In the isolation diet, among the likely changes in food consumption patterns, there will surely be an increase in ultra-processed foods, mainly because the containment measures have altered the dynamics of circulation and local trade of fresh produce (p. 166).

Gutierrez et. al (2021) who in their research entitled "Covid-19' first wave: Examining the impact on food purchasing behavior in the Eurozone" explained that Covid-19 has had a negative impact on the living conditions of people in all countries around the world. With a devastating economic crisis in which many families are struggling to pay the bills and make ends meet, increases in staple food prices can be of great concern. This study examines the relationship between the incidence of the pandemic during the first wave in 16 Eurozone countries and the variation experienced in food prices. We analyzed the harmonized index of consumer food prices (included in the HICP) and the classification of the degree of impact of the pandemic by country, the latter established with the death index

provided by the Johns Hopkins Center. The procedure used compared actual food prices during the first wave (March to June 2020) with those predicted in the absence of the pandemic. Time series analysis was used, dividing the research period into two phases. In both phases, the Holt-Winters model was applied for estimation and subsequent prediction. After a contrast using Kendall's tau correlation index, it was concluded that in the countries with the highest mortality rates during the first wave, there was a greater increase in food prices than in the less affected Eurozone countries (p.1179).

Franco & Ordoñez (2020) in their research sought to formulate sales strategies to increase the income of traders in the municipal markets of northern Guayaquil, which was greatly affected by the pandemic of Covid-19 (SARS-CoV-2), which appeared in late 2019 in Wuhan China and has affected the whole world, in Ecuador this pandemic arrived in late February 2020. Guayaquil was the first affected and on March 16 measures were taken to prevent the massive contagion, with curfew, vehicle restriction and biosecurity measures, the city went into a lockdown which reached chaos in those days, and the municipal markets were greatly affected because no products entered the city, and those that did arrive did so at high prices, and merchants who did not live in the city could not get to their place of work, which caused losses, either due to perishable products or seasonal changes. The different chapters describe the theories that allow us to base and develop the current situation of the municipal markets of Guayaquil, the background of the research and articles related to Covid-19, which will help to understand the problems of this sector. This research will propose strategies to increase the income of the merchants of the municipal markets in the north of Guayaquil.

With respect to national research we have Vallejos & Ventura (2020) who in their research Communicational strategies of a municipality for compliance with government regulations by merchants during Covid-19; had as general objective, to analyze the communicational strategies of the district municipality of Guadalupe during Covid-19 that promote compliance with government regulations by merchants. Therefore, the methodology of the research has a qualitative applied approach with a phenomenological research design, counting as participants the merchants of the district of Guadalupe, and also the officials and those in charge of the image area of the municipality of said district, to verify if the communicational strategies that the municipality implemented with the merchants were adequate. The results showed that the communication strategies

were applied in an effective and constant manner in the necessary means, however, the merchants experienced different realities: The traders who remained in the supply market were satisfied with the strategies applied, while the relocated traders showed disagreement with this change. He concluded that the means used have helped them to counteract the Covid-19 contagions by being precise and dynamic; likewise, the most favorable strategy for the traders has been the assemblies, since it has allowed them to have a face-to-face interaction, generating positive and somewhat obligatory attitudes on the part of the traders, achieving the well-being of all those involved (p. v).

Lujuria (2021) in his research entitled "A class analysis of the spread of Covid-19 in Peru: The case of Metropolitan Lima"; indicated that Peru has become one of the countries most affected and infected by Covid-19. The spread of the virus could not be contained by a complete blockade and a state of emergency. In this article we discuss the main conditions for the spread of the new coronavirus in Peru and examine which part of the population is most affected and infected by the virus. We find that Peru's role in the international division of labor, the country's business structure, high levels of informality, and the widespread use of temporary contracts are the structural conditions upon which the Covid-19 expansion in Peru rests. This article shows that the working classes are the main ones infected and affected by the new coronavirus. The Peruvian neoliberal development model has been responsible for the government's limitation to implement measures in line with the country's social and economic structure that could have contained the spread of Covid-19 (p. 657).

Condori (2020) indicated that within the food chain, an important link was the distribution of food to consumers; this activity is carried out in warehouses, shopping centers and especially in supply centers, which is why it is necessary to know the hygienic conditions of the supply centers. The objective of the study was to determine the hygienic sanitary conditions of food supply centers in the district of Sicuani in the department of Cusco in the year 2020. The methodology used was the technique of observation in the stalls inside the food supply centers and the instrument used is the format 1, 2, 3, 4, 5 and 6 of the Ministerial Resolution No. 282-2003-SA/DM sanitary regulations for the operation of food markets issued by the Ministry of Health. It concluded that the areas of meat and offal of food animals, fish and seafood, fruits and vegetables, processed, packaged and bulk foods, prepared foods, juices and soft drinks in the Central market have a score of 53.33 to 61.36% and a rating of regular, and in the Bombonera market they have a score of 50.00 to 61.36%, with a rating of 50.00 to 61.36%, and in the La Bombonera market they have a rating of 50.00 to 61.36%.00 to 61.36% and a

rating of fair in the meat and offal of food animals, fish and seafood, processed, packaged and bulk foods, prepared foods, juices and soft drinks areas, with the exception of fruits and vegetables which has a score of 48.57% and a rating of not acceptable (p. 1).

Eche & Eche (2020), in their research presented as general objective, to elaborate a proposal of Good Hygiene Practices in food handling to avoid the spread of Covid-19 in the central market of Talara 2020. The research methodology used was a non-experimental design with a cross-sectional, quantitative approach and the scope of the research was propositional; so that it explains how the purposes of the research should be achieved and function adequately. With the application of the instruments, it was obtained as results, that the agents: Customer - Seller had a high possibility of contagion of Covid-19, the transmitting media were determined: Money - Breath these present a high level of risk of transmission of Covid-19, the sanitary measures were selected and defined according to food handling in the Ministerial Resolution N°282-2003-SA/DM, in the same way they determined the adequate PPEs that provide a high level of protection, also through an evaluation it was determined; that 6.5% of merchants have a high level and 93.5% a low level of hygiene culture and finally it was determined that the benefit-cost analysis was S/2.58. According to the results obtained, it is concluded that currently the central market does not make use of good hygiene practices, so it is recommended that public and private entities take appropriate measures for the implementation of good hygiene practices in food handling, in order to preserve the health of the population (p. vi).

In this regard also Hernández; Fernández and Baptista (2003), ask themselves and answer "What is it to pose the research problem? In fact, posing the problem is nothing more than refining and structuring the research idea more formally. The general problem was posed: How is the impact of Covid-19 on the municipal markets of Lima Cercado 2020? The *practical justification*, explains the development of the study as inputs, which identify mechanisms for the formulation of strategies that would direct actions to the identified problem, strengthening the function of deciding on the decrease of pandemic effects. On the other hand, *the theoretical justification* intends to make an academic reflection in the inherent context of the study categories, influencing the deepening and analysis of the same; its research contributes to the scientific discipline and to the institution in the mitigation of pandemic effects; contributing to critical and transparent thinking. Its purpose is to provide a contribution to theoretical and scientific knowledge, as mentioned by Bernal (2010). Regarding *the social justification*, it presents diverse aspects such as: sanitary,

environmental, sociological, economic, political and cultural, influencing the participation of those involved in attention to the satisfaction of the population, by contributing with unequivocal solutions in the municipal supply markets.

For consequent reasons, the general objective is as follows: To explain the impact of Covid-19 in the municipal markets of Lima Cercado 2020. According to the information gathered from the observation, it is sought to propose purposes and execution of actions of the participants on compliance with their functions in the context of Covid-19; on sanitary hygienic conditions, sanitary emergency standards, administrative, human resource, cleaning and solid waste collection, disinfection, all coordinated in actions with the sanitary self-control committee, technical staff, professionals and officials in the best development of municipal markets, which were almost entirely fulfilled. Prioritizing the biosecurity guidelines for the containment of the spread of Covid-19 in the municipal markets.

Table 1. *Categorization and sub-categorization matrix and indicators*

Categories	Subcategories	Indicators
Impact of the Covid-19 Pandemic	Pandemic Covid-19	Social distancing Biosafety Guidelines Strategies. Rapid tests
	Administrative Management	Administrative actions Human Resources Conductive grant Municipal and emergency health regulations. Health surveillance
Municipal Markets	Health Surveillance Management	Food sanitary conditions Referral Guides Healthy market promotion Solid waste collection
	Solid Waste Management	Perception of staff work Disinfection in sanitary emergency Training on health risks.

Note: Source: Own elaboration

2. Materials and Methods

The type of research is basic, according to Hernández Fernández and baptista (2014), the qualitative scientist will prioritize the vision taking into account the social context that is changing and will only be understood through the studies (p.11). The research study developed the qualitative approach, based on the analysis of the context of the investigated phenomenon from its natural environment, i.e. the description and interpretation of the information obtained as it happens in reality. The inquiry process is inductive and the researcher interacts with the participants and with the data, seeks answers to questions that focus on social experience, how it is created and how it gives meaning to human life. According to Taylor and Bogdan (1984).

Likewise according to Hernández Fernández and Baptista (2014), in the qualitative approach, the research design "is the generic access that will be handled in the research processes" (p. 140). The design to be developed fits a case study, whose evaluative form identifies the problems of the "Analysis of the impact of Covid-19 in the municipal markets of Lima Cercado, 2020" in its categories as impact of the pandemic Covid-19 and municipal markets. The research work began with the observation technique, after a documentary review of the municipal markets of Cercado de Lima. As well as the use of a semi-structured interview guide for the collection of information from the participants.

The study scenario took the physical context or environment, detailing various important aspects in the impressions and collection of information, developing it in the Ramón Castilla municipal market and in the administrative offices of the management of economic development of the Municipality of Lima, located in the geographical area of Cercado de Lima. According to Mejía, (2018) considers scenario to the place or geographical space where certain phenomena or situations occur that will be ideal to carry out a certain study, which should be characterized by simple and make possible the adequate collection of information.

The participants were identified in the field immersion, among them, the head of the municipal markets department, the administrator of the Ramón Castilla municipal market, municipal inspectors; the public health sanitary inspectors, the inspectors who apply corrective and/or complementary measures, as well as the traders and representatives of the sanitary self-control committee, on the other

hand, the consumer public of the aforementioned market. According to Otiniano & Benítez (2014), the identification of the participants was essentially based on the description made to the research collaborators (p.13). The aim was to involve all the direct actors in "Analysis of the impact of Covid-19 in the municipal markets of Lima Cercado 2020" on issues of compliance with municipal, sanitary and national sanitary emergency regulations; taking into account the environmental context and the real situation of the markets, the sample identified and developed consisted of 12 participants.

The research work applied observation as a technique, for the systematic and sequential procedure, with the purpose of obtaining information regarding a situation. According to Heinemann (2003), it is an anticipated projected collection and inspected registration of data with the purpose of knowing the sensory or acoustic knowledge of an event (p.135). Another technique used is the interview that according to Vargas (2012), through Denzin and Lincoln (2005) explain the interview as the "art of asking questions and listening to answers". The interview is a technique of the qualitative approach, applied to the "Analysis of the impact of Covid-19 in the municipal markets of Lima Cercado" for data collection, it demands the interviewer's ability over the interviewee, with questions of personal opinion, seeking certainty in the answers. About the study of the documentary review; Ramirez (2010), explains the theoretical preamble and the development of the research practice; depending on the documentation that has been accessed, they are studied, checked and inspected referring to the particular thematic, for the beginning of the analysis of the theories or approximate references to the thematic of study (p. 48). Evaluating the institution, its plans, operations, as well as the sanitary norms and those of national sanitary emergency, on the study in question. The instruments, according to Behar (2008), establish the management of differentiated tools, which using them examines the inquiry gathered to the research, using the techniques of observation, interview, and documentary review; with the respective tools (p.55). These tools facilitate data collection, allowing the "Analysis of the impact of Covid-19 in the municipal markets of Lima Cercado 2020".

The research development procedure was initially coordinated with the respective authorities, requesting formal authorization. The development of the research was planned, determining the time of duration, the financing, the scenario and/or scope of action, the recording of information, the identification and location of the participants who have informed knowledge. Field work was carried out, gathering information through observation and document review,

followed by interviews; techniques that facilitated the collection of information. Allowing the analysis of data on the municipal management oriented to the municipal supply markets; the collection of data through these means acquired importance, for facilitating the recruitment of data, generating results for the analyzed information. Subsequently, the triangulation of data began, as a means of final analysis of the many sources of information or testimonies; which recognizes the characterization and concordance with the same sources of information, aligned to the desired objective.

In order to comply with scientific rigor, criteria of effectiveness are used for the collection of data and/or testimonies; as well as the temporality of data and the participating subjects that are predominant for the reliable elaboration of information. According to Patton (2001), "the qualitative researcher returns to the data or sources repeatedly to check whether the categories, comments, illustrations, make sense and objectively manifest the nature of the phenomenon. Scientific creativity, rigor, persistence and sagacity are the plus or added value in the use of scientific procedures". Rigor is synthesized in the honesty of the scientist. As well as the application of the principles of credibility; it affects the understanding of the subject of study, even more so when the references of the inquiry are known, such as: stories, writings, transcendental facts and the active participation of the participants.

The data analysis was carried out methodically and as transparently as possible, in the interpretation of the results taking into account the general patterns as relative, since the participating subjects could be inconsistent in their answers and evaluations according to the empathy of the researcher. According to Denzin (1970), triangulation is the composition of theories, compendiums of testimonies, methodologies and inquiry, in the subject to be studied as a single case, seeking to carry out a research work with scientific rigor based on principles including credibility. The type of triangulation used was data triangulation for the respective analysis.

The ethical aspect was framed in the scientific formality, starting with the analysis of national and international antecedents referred to the study categories. The role of values and the idealistic representation of the development of understanding and linked conduct through ethics in the research topics were recorded. Applying the instructed assent of the participant, the writing according to APA regulations, the respect for confidentiality, the correspondence with the participating collaborators, the coordinations and articulations with entities,

groups, collectivities and the social responsibility of the scholar. According to Miguel (2016), he pointed out that integrity is the property of safeguarding the accuracy and completeness of the stored data, composed by the Integrity of the information and the Integrity of the systems. That the stored data reflect reality and have not been manipulated (p. 13).

3. Results

The research work "Analysis of the impact of Covid-19 in the municipal markets of Lima Cercado, 2020" developed the techniques of interview, observation and documentary analysis applying their respective data collection instruments, to respond to the general objective of explaining the impact of Covid-19 in the municipal markets of Lima Cercado 2020. According to Behar (2008), he establishes the management of differentiated tools, which using them examines the inquiry gathered to the research, using the techniques of observation, interview, and documentary review; with the respective tools (p.55). These tools facilitated the collection of data, allowing the evaluation and analysis of the subject of the study. The interview was applied to 01 member of the Head of the Department of Administration of the Municipal Markets of Lima, 01 member of the administration of the Ramón Castilla Municipal Market, 02 members of municipal reordering, 02 members of sanitary inspectors, 02 members of supervisory inspectors, 02 representatives of the Sanitary Self-Control Committee and 02 representatives of the public user. The interview was of a semi-structured type, with open questions, the topic of the interview was the impact of Covid-19 in the municipal markets of Lima Cercado 2020, whose purpose was to explain the knowledge of the impact effects and the effectiveness of the sanitary emergency regulations among others, in the process of containing the spread of Covid-19. It is important to point out that the objective of maintaining the independence of the interviewee's opinion when consulted on the subject to be investigated was maintained.

From the application of observation as a technique, we can highlight that the participants feel sensitized and challenged by the impact effects of Covid-19 in the municipal markets, with the purpose of explaining the impact of Covid-19 in the municipal markets of Lima Cercado 2020, which were developed with a new normality based on the application of prevention protocols and biosecurity guidelines, demonstrating the development of each category with their respective sub-categories. In the systematic and sequential procedure, with the purpose of obtaining information regarding a situation. According to Heinimann (2003), it is

an anticipated projected collection and inspected recording of data for the purpose of ascertaining the sensory or acoustic knowledge of an event (p.135).

The documentary analysis was developed, through the review and evaluation of the sanitary norms and those of national sanitary emergency, as well as the institutional plans and those of the municipal markets, in a previous context and in the current situation of the pandemic; which motivated the research "impact analysis of Covid-19 in the municipal markets of Lima Cercado 2020, also the elaboration and coordination of the participants in the process of adaptation to the pandemic situation and the impact effects left in the year 2020 were analyzed. According to Ramirez (2010), he explained the theoretical preamble and the development of the research practice; that is to say depending on the management documentation to which access has been had, they are studied, checked and inspected referring to the particular thematic, for the beginning of the analysis of the theories or approximate references to the thematic of study (p. 48).

During the research work, the general objective of "Explaining the impact of Covid-19 in the municipal markets of Lima Cercado 2020" was achieved. According to the information gathered from the interviewees, the standards for hygienic sanitary conditions were partially applied in the municipal markets, in contrast to the emergency sanitary standards that were almost fully complied with. Biosecurity guidelines were given higher priority in Lima Cercado's municipal markets.

Category 1, "Impact of the Covid-19 Pandemic", according to information gathered from participants in Lima Cercado, emergency health measures were applied, such as the implementation of mandatory social isolation, restrictions on the movement of private transport and authorized staple foods, which altered the dynamics of circulation and marketing of fresh produce, as well as its quality. The active population of traders was reduced because they belonged to risk groups, many of whom had their stalls closed. The imposition of biosecurity guidelines to mitigate the spread of Covid-19 caused the necessary discomfort to traders and the population, who had to adapt to the situation in order to carry out their work. Rapid tests for negative diagnosis of Covid-19 had very limited access, even for municipal markets; these actions at the market level did not prevent the collapse of the health systems.

Specific Objective 01, "To explain the impact of Covid-19 on the administration of the municipal markets of Lima Cercado 2020" was achieved, according to the information provided by the participants, it was possible to describe the effects

of the impact on the administration, within the year there were 04 administrators with different profiles, with no continuity of their functions and competencies reflected in the goals. The intervention of the managers of the merchants was perceived, which interfered with and limited the municipal actions. The absence of the municipal workers' staff was notorious because they took advantage of the quarantine imposed by the government, which was solved by the support of the MEF's incentive program, whose purpose is to ensure good municipal management; hiring new personnel to comply with the biosecurity guidelines whose objective was to contain the spread of Covid-19. Likewise, the indicator of the merced conductiva, rent paid by drivers for the use of municipal posts, its compliance was partial, most pay a derisory sum of 51.00 nuevos soles per month, a considerable group owes many years, by municipal initiative there were payment condonations for 02 months. It was also reported compliance with municipal and sanitary emergency regulations in an effective manner; it highlights other aspects such as sanitation, coordinations with the sanitary self-control committees, mandatory weekly disinfection, verification of negative rapid tests of staff and traders, which required constant supervision.

2nd *Category*, "*Municipal Markets*", according to the information gathered from the research participants, it was demonstrated that the socioeconomic impacts of the Covid-19 pandemic in the municipal markets were evident in the increase of food prices, related to the economic difficulties associated with the closure directive and reinforcing the social distancing between the merchants and the consumer public. There was a perception of a hostile nature, when the Covid-19 preventive measures were implemented in the municipal markets; indirectly, a greater impact on the consumer's pocket was also perceived. Ensuring domestic food security during crises such as the one caused by the new coronavirus was fundamental to strengthening the food supply.

Specific Objective 02 was achieved: "To describe the impact of Covid-19 on sanitary surveillance in the municipal markets of Lima Cercado 2020. There was a high possibility of Covid-19 infection between the trader and the buyer. The application of Ministerial Resolution N°282-2003-SA/DM, Sanitary Regulation of Markets, was incipient, the supervision and control of sanitary surveillance in the market was not appreciated; as well as the Municipal Ordinance 072-1994; there were non-sanitary personnel that supported the control, food handling, infrastructure and food; their actions had limitations. The registration of referral guides or tickets is not effective to such an extent that the origin of foods such as meat (kid and pork), dairy products (artisanal cheeses) and other agricultural and primary products is not known. The perception about sanitary surveillance in the market has a point of view of form that is acceptable, but the point of view of

substance is unacceptable. The promotion of the municipal market for its conversion to a healthy market is difficult due to the absence of sanitary and inspection inspectors, on the other hand, the participation of traders has to make a 180-degree turn, going through various sanitary trainings, in order to align towards a healthy market.

Specific Objective 03: "Explain the impact of Covid-19 on the generation of solid waste in the municipal markets of Lima Cercado 2020" was achieved. According to the information provided by the participants, they were able to explain that the generation, collection and destination of solid waste produced in the markets are often deposited in the open air, the final destination or ways to treat this waste is unknown and there is no selective collection. More than half of the waste produced is of organic origin, which requires a different treatment than inorganic waste. However, the results obtained showed that solid waste management in the markets still needs to undergo some changes, mainly in relation to the destination and treatment of solid waste, especially organic waste. The personnel work with very simple personal protective equipment that does not provide effective protection against a possible Covid-19 infection; they are not trained in the sanitary risks caused by the pandemic. Their work implements require maintenance; the market is disinfected on a monthly basis, but the type of disinfectant and its concentration are not supervised.

5. Conclusions

This research work "Analysis of the impact of Covid-19 in the municipal markets of Lima Cercado 2020, involves all the management actors that are directly or indirectly related to the municipal markets in the context of the Covid-19 pandemic, analyzing its impacts, using interview and observation techniques aimed at professionals, technicians, sanitary self-control committee, sanitary inspectors, supervisory personnel and the general public, knowledgeable on the subject, it was agreed to know the effects of impacts, determining:

There was no continuity in the actions of the administrators, due to the difference in profiles and the short time designated. It appears that the merchants' directors have an influence on the municipal authority, and through documents and memorials, they have been able to interfere with and limit the municipal actions of the administrators on duty. The absence of the municipal workers was due to the quarantine imposed by the government, hiring new personnel to replace their functions. As well as compliance with biosecurity guidelines to contain the spread

of Covid-19. The conductive grant or rent was partially fulfilled, most pay a derisory sum of 51.00 nuevos soles per month, and even so they owe many years; the municipal initiative condoned the payment for 02 months. Regarding compliance with municipal and sanitary emergency regulations, priority was given to the national sanitary emergency. There was a high possibility of Covid-19 infection among traders and consumers, due to the uncontrollable agglomerations in 03 passages and in the food sale sector of the first level of the municipal market under study. It seems that the traders prioritize economic reactivation rather than health care by promoting the spread of Covid-19. A contingent of young people from Meta 1 was deployed to correct this attitude, but it was not enough. The application of Ministerial Resolution N°282-2003-SA/DM, Sanitary Regulation of Markets, as well as Municipal Ordinance 072-1994, were postponed by the priority, the supervision and control of sanitary surveillance of market traders was not appreciated, it is possible that they also had an absence of sanitary personnel; third party professionals appeared to support the control, food handling, infrastructure and food; their actions had limitations. The registration of referral guides or tickets is not effective to such an extent that the origin of foodstuffs such as meat (kid and pork), dairy products (artisanal cheeses) and other agricultural and primary products is not known. If the sanitary surveillance was not complied with, much less was the promotion of the municipal market for its conversion to a healthy market. More than half of the waste produced is of organic origin, which requires a different treatment than inorganic waste; the ways to treat this waste are unknown and there is no selective collection of the solid waste produced in the markets; it is often deposited in the open air or in passages. The personnel need to be trained on the risks of Covid-19 and work with personal protective equipment that provides effective protection against Covid-19 infection; their work implements require maintenance; the market is disinfected every month, but the type of disinfectant, its concentration, and its application need to be monitored.

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