Consumer behavior during the pandemic:
Strategic information for decision making

Comportamento de compra durante a pandemia: informações estratégicas para a tomada de decisão

Comportamiento de compra durante la pandemia: información estratégica para la toma de decisiones

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ABSTRACT
This study sought to identify drivers that explain the purchase and repurchase intention of Brazilian consumers of fresh food products via delivery during the Covid-19 pandemic[1]. This investigation is qualitative, developed in two phases: an exploratory phase through in-depth interviews and Content Analysis. It turned out that the 7 P's of Services Marketing are considered by interviewees as decisive elements for the purchase of fresh food products via delivery, as well as other new constructs identified. The second phase was explanatory, developed from a questionnaire and Coincidence Analysis (cna). The results reiterate the importance of combinations between the constructs of the 7 P's of services marketing, the Theory of Planned Behavior, User Experience, Satisfaction, Trust and Security, Practicality and Convenience, and Perception of risk in relation to health and Covid- 19 in the studied context.
Key words: Business information. Business Intelligence; Competitive Intelligence; Consumer behavior; Coincidence Analysis

INTRODUCTION

The Covid-19 pandemic has changed people's routines around the world and generated humanitarian, health and economic crises and moments of turbulence (Lemos, 2020; (Zimmermann; Quadros; Santos, 2023). In the first few days, unusual patterns of consumer behavior were identified (Kirk; Rifkin, 2020), including in the fresh food delivery sector.

Given the impact generated by the Covid-19 pandemic on the sector and the diversity of factors that motivate consumers to buy, it was considered that the knowledge generated from this research can contribute to information on the market for fresh food products that can be used strategically to achieve and improve the competitiveness of companies in the sector.

Therefore, identifying the drivers[2] that explain purchase and repurchase intentions, studying and understanding consumer behavior trends during the pandemic scenario, can provide access to information that will support strategic actions for future business management. They will also serve as a basis for strategic decision-making and organizational learning that can be replicated in other circumstances.

This research was guided by the question: which characteristics combined as drivers of Brazilian consumer behavior that explain the intention to purchase and repurchase fresh food products via delivery during the Covid-19 pandemic?

This study is justified by contributing to the understanding of purchasing behavior based on consumer perceptions in the context of the Covid-19 pandemic. In other words, information about consumers represents a competitive strategy for suppliers of fruit and vegetables via delivery. Furthermore, as it is a recent phenomenon, few studies have addressed the relationship between consumer behavior, food, and the Covid-19 pandemic through empirical testing.

1 This article was developed based on the results of the master's dissertation entitled "Purchase behavior of fresh food products for delivery during the pandemic: knowledge generated from the perceptions of Brazilian consumers" defended on July 5, 2022. Available in full in the institutional repository of the Federal University of Minas Gerais at: http://hdl.handle.net/1843/51149.

2 Drivers are elements, factors, forces or events that can motivate changes that directly influence their environment (Campos, 2022).

According to Zimmermann, Quadros, and Santos (2023),

> Especially for organizations, it is necessary to understand how these transformations can interfere with the way they manage information and impact decision-making through knowledge management in this new reality (Zimmermann; Quadros; Santos, 2023, p.3).

Therefore, this study aims to identify motivators that explain the purchase and repurchase intention of Brazilian consumers of fresh food products for delivery during the Covid-19 pandemic.

This study initially develops a theoretical contextualization about Covid-19 Pandemic and consumer behavior, as well as aspects related to the marketing mix. Next, it briefly addresses competitive intelligence and Customer Knowledge Management. The last two items address User Experience (UX) and Theory of Planned Behavior (TPB).

The Covid-19 Pandemic and Consumer Behavior

The need for social isolation caused by the Covid-19 pandemic has impacted several sectors and led consumers to receive all types of products at home, including natural food products. As a result, consumers have sought to learn new habits, such as shopping online and searching for information. That is, "since the consumer cannot go to the store, the store has to go to the consumer" (Sheth, 2020, p. 283).

The Covid-19 pandemic has affected online food purchasing behavior, but the advent of the Internet itself has already been changing consumption habits (Alaimo; Fiore; Galati, 2020). Zimmermann, Quadros and Santos (2023) corroborate the understanding of the change in consumer behavior in the face of disruptive events that occurred during the pandemic.

To meet the new and constant changes and needs of customers, Marketing also adapts and evolves. Traditionally for manufactured products, the four (4) P's of the marketing mix address four sets of strategic elements: product, place and time, place and promotion. When it comes to service goods, the traditional marketing mix has added three (3) new elements associated with the delivery of services, namely: processes, service scenario and people.

The seven (7) variables of the marketing mix integrate: products, which consist of main products that meet the primary needs of customers and complementary ones; place, which can occur through physical or electronic channels; price, which represents the exchange of value; promotion, which provides information about products and encourages consumers to buy; processes, which ensure efficiency, speed and productivity; service scenario or physical evidence, which is related to visible elements and resources that demonstrate the quality of the service; and people, which differentiates one supplier from another (Wirtz; Hemzo; Lovelock, 2021).

Consuming is part of everyone's daily lives. It contributes to the growth of economic activities and is an indicator of social well-being (Las Casas, 2010). Consumers, also called customers, are people, groups or organizations that play different roles throughout the process of purchasing and using products and services, such as enjoying the benefits of the products (User), making the purchase and exerting influence over the buyer or user (Opinion makers or decision influencers) and deciding on the purchase, without necessarily being a user of the product (Decision making) (Samara; Morsch, 2005).

Through market analysis and purchasing characteristics, companies develop new products or services that meet the needs of each type of consumer or consumer group. According to behavioral psychology, consumer behavior encompasses a set of reactions or responses to personal, sociocultural, situational, or marketing factors that influence individual behavior (Las Casas, 2010).

Natural disasters are less predictable, but they alter product production, the supply chain, and consumption. These can be natural events, earthquakes, hurricanes, and global pandemics, such as the Covid-19 pandemic.

Competitive Intelligence, and Customer Knowledge Management (CKM)

Aspects related to competitive intelligence and knowledge management also supported the development of this research. Competitive Intelligence or Strategic Intelligence is named in literature in different ways, such as Business Intelligence, Competitive Intelligence, Business Intelligence and Technology Intelligence, but the most used expressions are Strategic Intelligence, Competitive Intelligence and Marketing Intelligence (Santos, 2015).

All definitions consider the collection, analysis and dissemination of strategic information from the internal and external environment for decision-making and identification of difficulties and opportunities.

In this sense, knowledge is crucial to increasing a company's competitiveness, constituting a strategic resource (Mata; Martins; Inácio, 2024) that must be obtained from multiple sources.

Customers are relevant to companies beyond financial aspects, but also because they are a source of knowledge. On the other hand, although companies recognize that there is nothing without their customers, they rarely organize the customer knowledge that their employees collect informally and act with a lack of attention to customer knowledge. In these cases, customers are often more informed about the organizations they do business with than the companies know about their customers (Butler, 2000; Castagna, 2020).

Customer Knowledge Management (CKM) enables companies to detect market opportunities and improve their innovation process through collaboration with the customer (Fidel; Schlesinger; Cervera, 2015). Therefore, it is essential for improving new products and services, competitive intelligence, customer loyalty and collaboration synergies (Castagna *et al.*, 2020).

User Experience (UX)

Not only in the context of the pandemic, but also the emergence of new technologies has allowed customers to interact more with companies, products, services, make online purchases, have meetings and seek different ways of leisure and socialization. Aspects of User Experience with user interaction with websites, platforms and applications have also become more important to be evaluated to ensure their efficiency (Barros et al, 2023). Thus, UX has become a desirable value ingredient in contemporary business models (Musulin; Strahonja, 2021).

The term "User Experience" (UX) was created in 1995 by Don Norman, a cognitive scientist and Apple's first user experience architect, understood as the end user's interaction with a product, service or system (Pinheiro; Dias, 2023).

UX describes the holistic user experience before, during and after interaction with a platform, product or service. In this sense, it can be applied as a central component of modern business strategies, contributing to significant success in delivering optimized products to customers (Luther; Tiberius; Brem, 2020).

User Experience (UX) focuses on the user so that their interaction with products or services meets their needs. To do this, it is necessary to know who they are and what those needs are (Preece; Rogers; Sharp, 2005). In other words, if the objective is to facilitate the process between people and the object, all its development must be focused on the user.

Theory of Planned Behavior (TBP)

Since we seek to understand changes in behavior that occurred during the pandemic, it is understood that the Theory of Planned Behavior (TPB) can allow us to understand behavioral intention, attitudes, and social influences.

According to Carneiro et al (2024)

> TPB states that behavioral performance depends on motivation (behavioral intention), which in turn is the result of the positive or negative evaluation that the person makes of the behavior (attitude), the perception that they have in relation to the social pressure that they suffer (subjective norms) and the resources and capabilities that they have to perform the behavior (perceived control) (Carneiro et al, 2024, p. 11).

The central factor of the TPB is that the stronger the intention to adhere to a behavior, the more likely it is to be performed. Most behaviors depend, to some extent, on non-motivational factors, such as opportunities and resources. In other words, someone who intends to do something has opportunities and resources will be successful in doing so (AJjzen, 1991). According to TPB, consumer behavior is predicted by behavioral intention, as it is also determined by attitude, subjective norm, and perceived behavioral control. Attitude is associated with the evaluation of the positive and negative consequences of behavior. Subjective norm refers to the perception of social expectations regarding the behavior. Perceived behavioral control refers to the individual's assessment of being able to engage in the behavior (Ajzen, 1991; Carfora *et al.*, 2021).

METHOD

Initially, theoretical assumptions were outlined, and, at the end, they were evaluated to see if they were achieved by the research. The methodological path adopted followed two onto-epistemological lines divided into

two phases.

The first phase considered "*Belo-horizontinos*" for the application of the questionnaire, with this choice supported by the greater search interest for the terms "food", "delivery", and "green food delivery" on Google Trends (2020). It followed the constructive line, inductive and hypothetical-deductive method, and exploratory qualitative approach to data collection and analysis. That is, in-depth interviews and data analysis were carried out using content analysis according to Bardin (1977).

The second phase of the research had a neopositivist approach, inductive and hypothetical-deductive method. Data were collected through the application of a questionnaire on a 6-point Likert scale, expanding to Brazilian consumers. Data analysis used a formal and explanatory qualitative approach method, Coincidence Analysis.

Following the same methodological line as Freitas's research (2021), the second stage is classified as

> "formal qualitative because it analyzes the cases in their entirety using formal language (classical and fuzzy logic) to analyze non-quantitative aspects of the phenomenon. Because it is based on an inferential logic that, despite focusing on the non-quantifiable characteristics of the phenomenon, is systematic and procedurally replicable" (Freitas, 2021, p. 93; Griffin; Ragin, 1994.)

First Phase of Research

Ten interviews were conducted with consumers of fresh food products delivered during the Covid-19 pandemic. Most of the interviewees were born in Belo Horizonte (n=8), were female (n=9), married (n=7), single (n=2) and divorced (n=1), had families of 2 to 4 people (n=8) and lived alone (n=2). Only two (2) interviewees reported being in the risk group for Covid-19, which allows us to infer that being in the risk group or not intending to buy fresh food for delivery may not be a preponderant factor.

To develop the Content Analysis according to Bardin (1977), three readings were carried out: the first was a floating reading, the second identifying the terms, phrases and the frequency that appeared in the responses. In the third reading, the constructs were identified, as well as scales that presented correspondences were searched in the literature.

The first theoretical assumption that the constructs of the 7 P's of Service Marketing are considered by consumers for the intention to purchase and repurchase fresh food products via delivery was confirmed, as most interviewees stated that aspects such as:

- Physical characteristics of the products (PROD) that determine the perception of quality, such as beauty, color, texture, smell, not being crushed, wilted, being ripe or not, being at the personal "point of preference".
- Price (PRE) is an important component to attract consumer interest. However, products with higher prices are acceptable to the consumer when they are perceived as having a good cost-benefit ratio.
- Regarding the place (PRA), it can represent some difficulties in the user experience on websites and platforms, in the use, delivery time and availability of products.
- It was not emphasized that one means used for purchase is better than another, the one that is more practical for that consumer will be the most used.
- The delivery time was indicated as decisive for the intention to purchase and repurchase.
- Preferential promotions (PROM) are related to the price of products and/or delivery fees.
- The processes (PROC) considered most relevant are packaging and delivery time (perception of speed or delay).
- Physical evidence (EVF) was perceived by the variety and availability of products on the purchase channels, as well as by the speed in processing orders and punctuality of delivery.
- The People construct (PES) was perceived through the employee who chooses the products and makes the delivery.

The second theoretical assumption that it would be possible to identify, through the perception of new consumers, possible constructs as explanatory drivers for the intention to purchase and repurchase natural food products for delivery during the Covid-19 pandemic was also confirmed.

The content analysis also identified the following constructs: Practicality and convenience (PCC), Trust and safety (CONSEG), Perception of risk in relation to health and Covid-19 (RISC) and Satisfaction (SAT).

The third theoretical assumption that consumer perception allows inferences to identify other constructs

as possible motivating elements of the intention to purchase and repurchase fresh food products via delivery was confirmed, as it allowed inferring the need to consider the principles of User Experience and the Theory of Planned Behavior.

Therefore, the first phase allowed the development of a research model with the 7 P's of service marketing, 3 constructs of User Experience, 3 constructs of the Theory of Planned Behavior, and 4 constructs identified from the interviews.

The UX constructs were related to "Usable", "Useful", and "Findable", and the principles of "Accessibility" and "Usability" were encompassed in the constructs of "Place" and "Physical Evidence". The constructs of the Theory of Planned Behavior considered were "Attitude", "Social Influence", and "Behavioral Intention". The construct "Attitude" was related to "Attitude towards waste" and "Behavioral Intention" to "Purchase and Repurchase Intention" (INTC).

Second Phase of Research

The sample included 21 states and 108 Brazilian cities, with the main states being: Minas Gerais (n=135), São Paulo (n=74), Pará (n=47) and Rio de Janeiro (n=32). The means used for purchasing are WhatsApp (46.63%, n=180), delivery provider website (23.06%, n=89), delivery provider apps (12.44%, n=53) and mobility apps (13.99%, n=54). Approximately 82.90% (n=320) of the interviewees did not purchase fresh food products for delivery before the pandemic and 17.10% did so.

The Coincidence Analysis (CNA) was developed with the support of R® Software, RStudio® interface and CNA script set. The original ordinal items, bivalued Fuzzy factors (bv-fs), were scored in two ways: absolute assignment by Direct Assignment and relative assignment by Totally Fuzzy and Relative Alternative (TFRa).

The absolute data treatments were done by direct assignment of fuzzy scores, by simply re-coding the original ordinal value. If the consumer responded from 0 to 2 on the Likert scale, it is considered that he disagrees more than he agrees with the item, receiving a fuzzy score below 0.5. If the consumer responded from 3 to 5, it is considered that he agrees more than he disagrees with the item, receiving a fuzzy score above 0.5. The relative assignment of fuzzy scores from ordinal data was performed using the Totally Fuzzy and Relative Alternative (TFRa) approach, assigned by calculating the "relative average frequency" and the "cumulative average frequency" using Microsoft Office Excel, obtaining Fuzzy Scores for each construct.

To enable the analysis, the aggregation of the constructs and subconstructs adopted for the research was performed. The aggregation of the scores of the bivalued Fuzzy factors of absolute assignment was performed using the Boolean operator AND and/or OR, depending on the theorized structure of formation of this concept. To this end, it was assessed whether "the presence of the property represented by one of the items of the scale proposed for a construct can be considered (i.e., theoretically) necessary for the formation of the corresponding concept" (Freitas, 2021, p. 87). To aggregate the constructs for the scores of the Fuzzy bivalued factors of relative attribution, the arithmetic mean was adopted as the aggregation operator, as suggested by Filippone, Cheli and D'agostino (2001) and Freitas (2021). This ensures that the aggregated factors maintain their interpretability, comparability and the meaning is always equal to 0.5 (Freitas, 2021).

Once the constructs were aggregated and coded, the conversion to crisp scores was performed through a direct and simple attribution. The relative treatment of the data, due to the characteristics of the treatment, covers the graduations of the data and can be considered more detailed in the perception of consumer intention. Therefore, two analyses were first carried out with the databases with relative treatment in crisp and fuzzy scores. Then, two more analyses with absolute treatment in crisp and fuzzy scores with the expected result of Purchase and repurchase intention. All cna analyses were performed using the frscored_cna() function in R® software, developed by Parkkinen and Baumgartner (2021). The frscored_cna() function executes cna() serially, for all combinations of minimum consistency and coverage of interest, returning explanatory causal solutions, in decreasing order of "robustness", called fit-robustness (FR).

When performing analyses with the frscore_cna() function, robust causal solutions are sought, based on a series of data reanalyses in different consistency and coverage configurations (Parkkinen; Baumgartner, 2021).

The frscore_cna function was executed in consistency and coverage range from 0.95 to 0.75; decrement of 0.01 and maxstep c(3,3,9). Even though the analysis was performed with a database of 386 cases and 15 factors, which is considered "large" for causal configurational modeling (Freitas, 2021), it was computationally possible to find causal solutions in acceptable processing time, without the need to change the parameters.

A total of 457 solutions were found with the database with relative treatment and clear scores and two (2) solutions with the database with absolute treatment and fuzzy scores. Duplicate solutions with lower consistency and

coverage were excluded, leaving 232 causal explanatory solutions for the INTC construct.

Due to the large number of causal explanatory solutions for the INTC found, selection criteria were established based on Freitas (2021), Baumgartner and Ambühl (2019), and Parkkinen and Baumgartner (2021).

Thus, 10 causality models were selected, as shown in Table 1.

Table 1 - Selected cna solutions

Selected explanatory causative solutions	Fr	Consistence	Cover
Relative treatment with clear score			
1. PCC*SAT+CONSEG*IS<->INTC	47	0.762790697674419	0.784688995215311
2. PROD*IS+PCC*SAT<->INTC	32	0.754716981132076	0.76555023923445
3. PES*IS+PCC*SAT<->INTC	22	0.758293838862559	0.76555023923445
4. prod*SAT+CONSEG*SAT+PROD *PCC*RISC <->INTC	14	0.757990867579909	0.794258373205742
5. PCC*SAT+CONSEG*IS+pre*PROM *IS<->INTC	12	0.752212389380531	0.813397129186603
6. PROC*SAT+CONSEG*IS+SAT *RISC<->INTC	10	0.759259259259259	0.784688995215311
7. UX*SAT+CONSEG*IS+PROD*PCC *RISC<->INTC	10	0.76056338028169	0.77511961722488
8. EVF*SAT+CONSEG*IS+SAT *RISC<->INTC	8	0.751131221719457	0.794258373205742
9. PROM*SAT+CONSEG*IS+ATT *SAT<->INTC	4	0.755868544600939	0.770334928229665
Absolute Treatment with Diffuse Punctuation			
10. PRE*PES*RISC+PRA*PES*IS+IS *SAT* RISC <->INTC	2	0.770114942528736	0.760577915376677

The connectives "*" represent the logical "E"; "+", represents the logical "OR"; "<->" represents "If Only If".

Source: search data

The interpretation of the solutions derived from the relative processing of the data is related to the other responses in the questionnaire. Through TFRa, a consumer's response to a given item receives a diffuse score equivalent to the group of consumers with the lowest agreement and/or highest disagreement.

Due to the nature of absolute treatment, the selected causation solutions should be interpreted considering the individual position of each consumer (agreement or disagreement), regardless of what the other consumers answered in that item (Freitas, 2021).

The presence of a factor (capital letter) or absence (lowercase letter) means that the consumer understands that that factor is an important element for the intention of purchasing food products in natura by delivery.

In cna it is guaranteed that the left side of a Boolean expression represents minimally necessary disjunctions of minimally sufficient conjunctions for the right side of the expression. A disjunction can be interpreted as a cause of the factor on the right side of the expression and none of the categorical values that make up the left side can be eliminated without the disjunction no longer necessary and sufficient for the right side (Baumgartner; Ambühl, 2018; Freitas *et al*., 2020).

In solution 1, for example, each conjunction of the left side of the expression is causally relevant for INTC. In isolation, each factor cannot be considered as necessary and sufficient for INTC, because the cause is considered as the left side of the Boolean expression, while a minimally necessary and sufficient condition for the right side (Freitas *et al*., 2020).

In solution 1 "PCC and SAT" appear in minimally sufficient conjunction for the purchase and repurchase intention to occur. The PCC concerns the understanding that receiving products at home is comfortable, saves time and placing the order at any time is convenient (Santos, 2013).

"Satisfaction" appeared 14 times in the selected solutions. The construct is the consumer's perception that buying fresh food products per delivery is or is not a good choice of purchase (Moriuchi; Takahashi, 2016).

The combination of CONSEG and Si factors stands out in causal relevance, as it was found in a greater number of explanatory causal solutions resulting from cna (solutions 1, 5, 6, 7, 8, and 9).

The Construct "Trust and Security" comprises the consumer's sense of security in carrying out monetary transactions, as well as the execution of their order and the trust in the delivery man (Moriuchi; Takahashi, 2016; Maulana; Najib; Sarma, 2021).

"Social Influence" refers to the perception of social expectations in relation to behavior. That is, the approval or support of people considered a reference by the individual and who influences him (Ajzen, 1991; Carfora *et al*.,

2021).

In solution 2, the combination of PROD and IS shows that positive perceptions of products added to social influence are factors causing INTC.

Consumer behavior suffers the impact of "Social Influence" on purchasing decisions and intentions (Ajzen, 1991; Carfora *et al*., 2021). Moreover, considering that the product is the object of desire, it is understood that satisfaction with the physical characteristics of the products influences the purchasing decision.

In solution 3, the combination of the construct s "People" and "Social Influence" evidence that they are factors perceived by consumers as causally explanatory drivers for the INTC. Social influences can be causally relevant when combined with the positive perception of company employees.

In solution 4, the "non-presence" of the construct "Product" (prod) indicates that it does not consider the product is relevant to the INTC but is only causally explanatory when combined with "Satisfaction".

In delivery purchases, the consumer cannot choose the products directly according to their personal preferences since they choose by specifications and images. If the products purchased are as described, consumers will be satisfied with the purchase (Maulana; Najib; Sarma, 2021).

Maulana, Najib, and Sarma (2021) identified that trust has a significant effect on consumer satisfaction but does not lead to consumer buying and buyback intent. This corroborates the term "CONSEG * SAT" because CONSEG alone is not sufficient for the purchase intention.

The combination of PROD, PCC, and RISC appear in two causation solutions (4 and 7) evidence that consumers relate the positive perception regarding products and practicality and convenience and the perception of risk regarding health and covid-19 to the INTC.

In solution 5 the "non-presence" of the price indicates that the consumer does not consider the prices of the products and delivery values are relevant causally to the INTC.

The combination PROC and SAT, can indicate the consumer who has a positive perception as to the aspects related to service processes during the purchase and who has their expectations met satisfactorily.

In solution 6, it is inferred that Processes are a very subjective part for the consumer, especially in online shopping where the visible part to the customer is usually just delivery. That is, about the time between order and delivery (Moriuchi; Takahashi, 2016) the product is transported properly or not (Santos, 2013), the way of return is facilitated and fast, and if the packaging of the products is well made (Majiid; Sutrisno; Barokah, 2020). Satisfaction and perception of health risk and Covid-19 appear as minimally sufficient conjunction.

In solution 7, the combination of UX and SAT suggests that the consumer has positive shopping experience and satisfaction. The UX construct covered issues such as the speed and time appropriate for the delivery of the order; the possibility of using different means to place the order; whether the form of written or spoken communication by the employees of the establishment is clear and appropriate, at the order or time of delivery; and whether the delivery provider keeps records of the data and previous requests to facilitate the next order (Richardson; Campbell-Yeo; Smit, 2021).

In solution 8, the conjunction of "Physical Evidence" and "Satisfaction" indicates that the consumer has a positive perception regarding the aspects related to Physical Evidence, as well as his satisfaction with the purchase.

The "Physical Evidence" is linked to easing in making orders, the use of uniform, mask, the behavior of the delivery man, and other elements that represent the establishment and evidence of the quality of a company's service (Wirtz; Hemzo; Lovelock, 2021).

In Solution 9, the constructs "Promotion" and "Satisfaction" are combined in conjunction in this solution. Maulana, Najib, and Sarma (2021) identified that about 46.0% of the consumers surveyed bought organic food online once every 1-2 months before the Covid-19 pandemic. Once you have already consumed regularly, you will not be influenced by the promotions.

The combined ATT and SAT constructs are minimally sufficient in conjunction for the intention of buying and repurchasing.

The attitude comprises the intention of the individual to perform a certain behavior. In this study, the attitude was evaluated by considering the consumer's attitude toward food waste, their concern to buy a few products in such a way that there are no leftovers, and how it feels if they must throw food away (Delley; Brunner, 2020).

In Solution 10, "Price", "People" and "Perception of health risk and Covid-19" are causally explanatory elements for INTC. In delivery purchases, sellers, and buyers, are not in person. Therefore, it is necessary that consumers do not realize the risks involved and trust the seller to be satisfied with the purchases.

The Construct RISC appeared as explanatory causal solution 10 in two conjunctions, combined with "Price" and "People" and with "Social Influence" and "Satisfaction".

The Construct “Place” comprises the physical or electronic medium available for purchase. In online purchases, the location matters less than the access facilitated by the means made available to make the purchase (websites, applications, WhatsApp, or phone).

The first theoretical assumption was partially confirmed with the presence of six (6) of the constructs of the 7p’s Service Marketing in the explanatory causative solutions selected in cna, from the database relative s and crisp score (Analysis1). In cna with the absolute databases and diffuse score (Analysis2), only 3 constructs of the 7 P’s appeared, being Price, People, and Place. Therefore, the first assumption was partially confirmed in this analysis.

The construct “Place” was not found in the solutions selected in cna with relatives database, which does not necessarily indicate that it is not important for the consumer, but that in relation to the average of the responses of other consumers is not a construct causally relevant to INTC. However, it is considered a driver explanatory solution 10 when combined with “People” and “Social Influence”.

The second theoretical assumption was confirmed in analysis 1, because the constructs “Attitude” and “Social Influence” of the Theory of Planned Behavior appear in the 9 solutions. Therefore, for this analysis, the second theoretical assumption was partially confirmed.

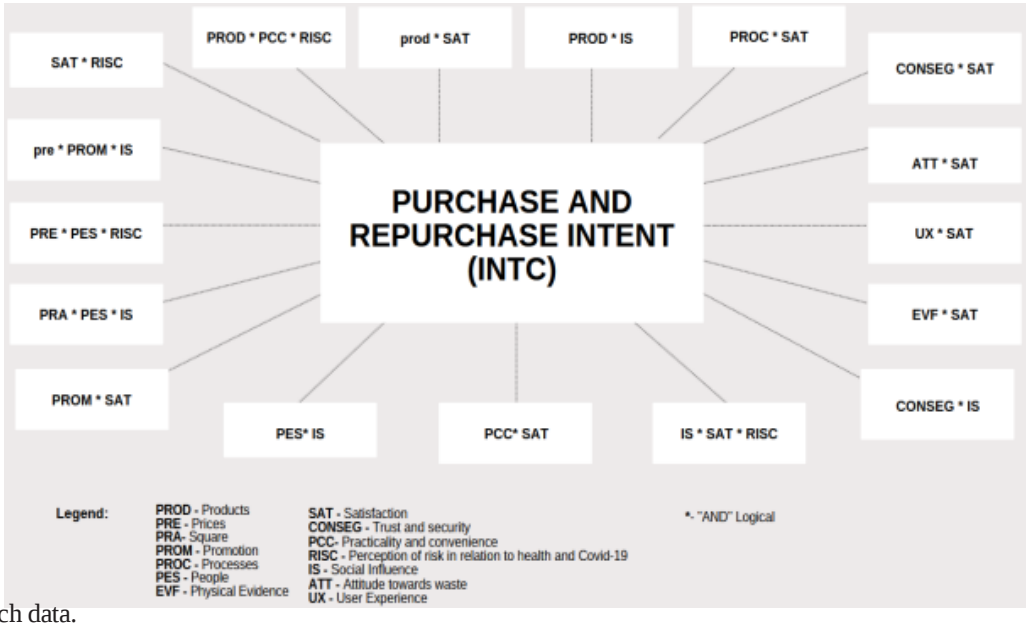
The third theoretical assumption was confirmed by the presence of the construct “UX” as an explanatory driver of the intention to purchase and repurchase in natura food products by delivery in solution 7. For absolute analysis, this assumption has not been confirmed.

The fourth theoretical assumption was confirmed with the presence of one or more of the constructs identified by the interviews with drivers explanatory of the intention of buying and repurchasing in natura food products by delivery in all solutions resulting from cna with relative treatment. In cna with absolute data, it was partially confirmed with the presence of the constructs “Satisfaction” and “Risk Perception in relation to health and Covid-19”.

As for the fifth theoretical assumption, it was partially confirmed for the cna of relative and absolute data, because it is not all constructs that appear combined with each other. The ten causal solutions selected presented 17 combinations of two and three causally explanatory factors for INTC (Figure 1).

The higher frequency of SAT in the results corroborates studies that highlight “Satisfaction” of the consumer as one of the essential factors for the survival of any business organization.

Figure 1 - Combinations between constructs



Source: search data.

Considering Boolean properties of causality, the dimension of equifinality determines that different paths can lead to the same result (Baumgartner; Ambühl, [s.d.]; Whitaker, 2020), and each conjunction is considered sufficient for the intention to purchase and repurchase of fresh food products by delivery.

No construct alone was identified as causally explanatory. In isolation, each factor is necessary for the INTC to happen, but they are only sufficient when in conjunctions presented in the solutions for the database of this research.

The combinations that stood out in causal relevance in terms of occurrence were “CONSEG and IS” and

"PCC and SAT". The conjunction "CONSEG and IS" and "PCC and SAT" were identified in 4 solutions. In addition, SAT combined with other constructs 14 times and "Social Influence" in 12 times.

The combination PCC and SAT stood out as one of the most relevant in terms of occurrence because it appears in four solutions (1, 2, 3 and 5). Believe that consumers who consider the "Practicality and convenience" of the purchase of food products in natura and have "Satisfaction" in relation to purchases have more intention of buying and repurchasing this type of purchase.

The higher frequency of the construct "Social Influence" indicates its importance in the decision-making of the consumer of fresh food products by delivery.

As for the influence of the pandemic context on consumer behavior, it can be said that it was evidenced in 3 conjunctions "SAT and RISC" (in three solutions) and "PROD and PCC and RISC" (in two solutions) in the analyses with data ban relatives and "PRE and PES and RISC" (in one solution) in the analyses with the absolute databases. Indicating the causal importance of "perception of risk in relation to health and Covid-19", both in relation to the average of consumers and in absolute terms.

Conclusions

This study sought to understand the consumption behavior of fresh food products per delivery during the Covid-19 pandemic, based on the subjective meanings given by Brazilian consumers. That is, he sought to understand the phenomenon from the meanings, perceptions, and experiences of the people who experienced it.

The analysis of the interviews took place through content analysis, which allowed identifying the 7 P's of Marketing, the constructs "Satisfaction", "Trust and Security", "Practicality and convenience" and perception of "Risk in relation to Health and Covid-19" as drivers that explain the intention of buying and repurchasing food products in natura by delivery during the pandemic through the perception of Brazilian consumers.

It is understood that the 7 P's of Service Marketing are considered by consumers for the intention of buying and repurchasing food products in natura by delivery, because for the interviewees' aspects related to "Products", "Price", "Place", "Promotion", "People", "Processes" and "Physical Evidence" were considered by the interviewees as decisive for the purchase of fresh food products by delivery.

The first phase of research also allowed us to infer the need to deepen the constructs of "User Experience", such as "Usable", "Useful" and "Localizable", because the consumer experiences the use of some medium (telephone, WhatsApp, Applications or websites) to make the purchase delivery; the constructs of the Theory of Planned Behavior, such as "Attitude", "Social Influence" and "Behavioral Intention". The construct of "Attitude" was related to "Attitude" regarding waste" and "Behavioral Intention" to "Intention of purchase and repurchase". Thus, the three theoretical assumptions established for the first phase of the research were confirmed.

As for the second phase of the research, due to the equifinality, Boolean property of causality, the cna presented more than one possible result, which is why it is necessary to adopt criteria for the selection of causal solutions that best explain the purchase and repurchase intention. As well as guaranteeing robustness, reliability, consistency, and coverage in the standards considered ideal.

The cna results offered an understanding of how the factors work together through the selection of ten (10) minimally necessary and sufficient explanatory causal solutions (Boolean expressions), free of redundancy, with robustness and with adequate coverage and consistencies.

In the selected causation solutions, it was possible to identify 17 combinations of constructs or possible "cause paths" that explain the intention of buying and repurchasing fresh food products by delivery.

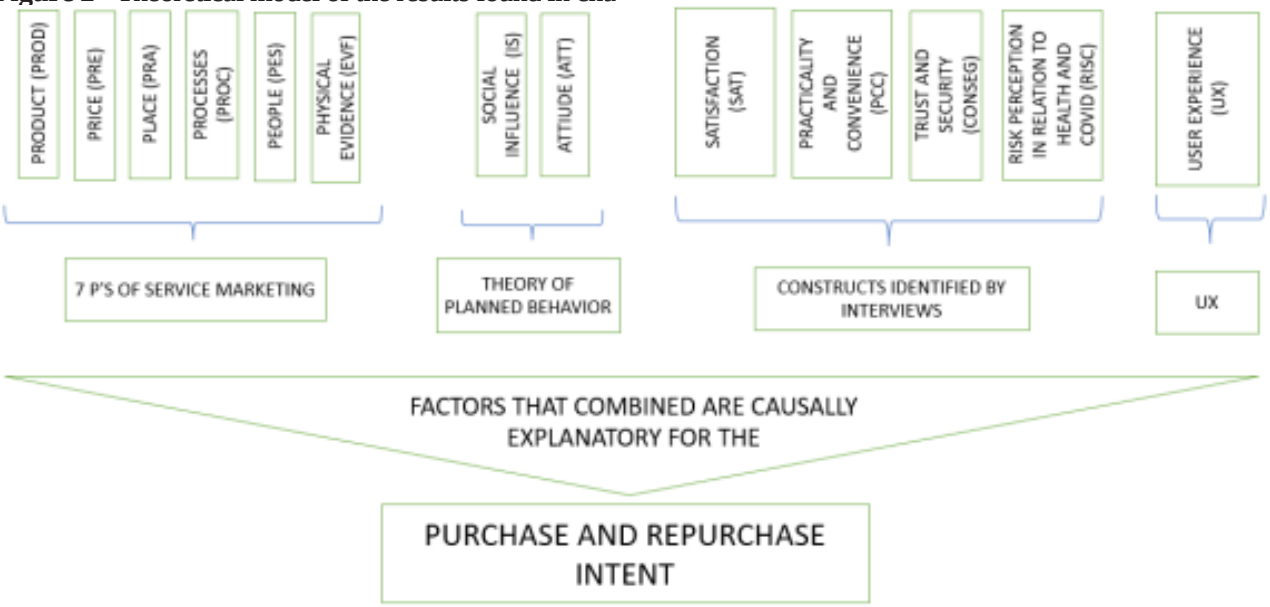
It was concluded that the factors of the 7 P's of marketing (Product, Price, Place, Promotion, Processes, People, and Physical Evidence), the factors (Social Influence and Attitude) adapted from the Theory of Planned Behavior and the factors Satisfaction, Practicality and Convenience, Trust and Security and Perception of risk in relation to health and Covid-19, as well as the User Experience, that combined, are explanatory elements for the intention of buying and repurchase, that is, necessary and sufficient for the purchase and repurchase intention to occur (in the form of the selected explanatory causative solutions and for the database of this research).

In this sense, Figure 2 presents a theoretical model of these results.

The results can be considered theoretically relevant because all constructs analyzed appeared in at least one of the explanatory causative solutions selected for the sample and database of this research.

It is understood that the theoretical results can be brought from managerial contributions. Learning consumer behavior allows you to understand how individuals seek products or services to meet their needs or desires. In possession of this information, managers can make decisions that generate business intelligence and increase competitive advantage.

Figure 2 - Theoretical model of the results found in cna



Source: search data.

The limitation of this research is considered the computational capacity of Software R® because it was not possible to perform cna with all factors and demographic data. Thus, demographic data were analyzed by descriptive statistics.

It is suggested that future studies research the explanatory profiles of companies in this follow-up that adhered to delivery as a form of business and competitive strategy during the pandemic, to understand which types of companies seek innovation in the way they operate in times of crisis.

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