Combining internal and external drivers to understand omni-channel behavior

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ABSTRACT : *This paper analyses the drivers that lead the omni-channel behavior. Particularly, the research evaluates (1) the customers' motivations purchase, (2) customer involvement in the purchase journey, and (3) the existence of incentives in the retailer to lead customers visit their offline and online shops. The empirical research is based on a survey with a sample of 636 smartphone users. The results derived from the application of a binomial logit model using STATA 12 show that personal motivations not linked to the saving of the purchase costs, and high involvement in the customer journey of the product enhances the development of omni-channel behavior. In addition, in order for this type of customer behavior to be effective, the retailer must promote the use of traditional and digital channels simultaneously.*
KEYWORDS - *Omni-channel behavior, utilitarian motivations, hedonistic motivations, involvement, incentives*

I.   INTRODUCTION

Retail is immersed in a disruptive stage being, perhaps, the most significant revolution it has faced in recent decades. To talk about re(tail)-evolution is to talk about Omni-Channel Retailing (OCR). OCR is defined as the strategy that integrate the available channels and touchpoints to create a seamless shopping experience that breaks down the barriers between virtual and physical stores and increases engagement during customer journey [1, 2]. But OCR is much more than a "trend" concept. It is a key business model to provide a fresh commercial experience to today's more demanding and digitalized customer. Shoppers want to decide freely (depending on the moment, situation and mood) in which physical and/or virtual touchpoints they are informed before making the purchase and where they finally acquire the product, in the physical store or through the Internet.

Thus, in recent years, different omni-channel practices have appeared. The OCR literature agrees in identifying that the most recurrent omni-channel behaviors are webrooming and showrooming [3]. As [4] posit, webrooming consists of searching for information online and then purchasing offline. For its part, showrooming customers gathering data and examining products in physical stores and then purchasing online. However, companies such as Home Depot, Walmart, Best Buy and Kohl's have developed different terms for offline-online combinations of product collection and returns management that allow the buyer to avoid incurring the shipping costs associated with online shopping, or to receive the product in a short period of time.

Among the most prominent practices are BOPIS, BOPUS (Buy Online, Pickup In Store) or "click and collect." These concepts imply that customers buy online and pick up at the physical store, without paying shipping costs. In case of dissatisfaction with the purchase, the return is made in the physical store. The practices "click and drive" or "drive-through" are a variance of the previous ones. Although these practices differ in that the customer withdraws his/her order at a specific collection point, which is usually located in the shopping center parking lot without the buyer having to leave or move away from his/her car.

The practice known as BOSS (Buy Online, Ship to Store) also called "pickup today" is oriented to those customers who, besides not being willing to assume the shipping costs, also value the immediate availability of the product. Retailers offer the possibility to pick up the purchase at the nearest point of sale on the same day or hours after placing the order online. Those shoppers who are willing to pay a higher price for their online purchases in exchange for immediate availability of the purchase at home are eligible for the

BODFS (Buy Online, Deliver From Store) practice. Retailers turn their salesrooms into logistics centers and deliver from the physical store itself, offering customers the convenience, comfort and on-time delivery they are demanding [5]. BORIS (Buy Online, Return In Store) practice refers to the possibility that retailers offer to return online purchases to the physical store. Shoppers who make returns at brick-and-mortar stores often make purchases for the same or even a higher value.

Taking into account the above considerations, since the advent of OCR the customer journey has become more complex. For this reason, both business practitioners and academics are oriented to study in-depth the figure of the omni-shoppers. Specifically, to understand what factors drive (or discourage) the omni-shopping behavior. The drives can be directly linked to the customer (internal drivers) or to the business-client relationship (external drivers).

OCR literature review reflects the importance of knowing why individuals become omni-shoppers. That is, what lies behind the combination of physical and virtual channels. In this sense, the most recent studies are oriented to examine the psychographic variables within the omni-channel environment [6,7,8]. Our aim is to deepen in this line of research, specifically, analyzing the psychographic variables of psychological nature. Understanding the drivers that lead costumers to combine physical and virtual channels, as well as their involvement during the purchasing journey, is key to contributing to the OCR literature and helping retailers design segmentation and engagement strategies. Similarly, it is also interesting to know whether the incentives retailers make for buyers to use available channels are being met.

Today's retailing environment is omni-channel. In this sense, it is convenient to know not only who the omni-shoppers are (description of the profile based on demographic and socioeconomic characteristics), but also what they look like. In other words, study what drives omni-channel behavior. The results obtained will allow identifying some of the important variables that define an omni-shopper. This contributes to the OCR literature from the customer's perspective and helps retailers orient their business strategies to engage nowadays customers.

II.   LITERATURE REVIEW

Early OCR researches from a customer perspective focused on analyzing the impact of omni-channel behavior on the volume of purchases made by the customer or other quantitative measures of behavior [9]. Currently, the importance lies in knowing the factors that influence the development of an omni-channel behavior. According to [7], knowing these variables is critical for retailers to adapt their strategies and respond to a buyer whose customer journey is increasingly complex. Two types of drivers can be identified. On the one hand, those directly linked to the customer, the so-called internal drivers. On the other hand, those known as external drivers that are linked to the relationship that customers have with companies.

2.1. Internal drivers

Traditionally, when retailers build their databases they use, in a recurrent way, the demographic and socioeconomic variables. These parameters are easy to identify and, in case they cannot be directly identified, can be obtained in an easy way. However, from the academic perspective it is observed that these variables are not conclusive when it comes to explaining why an individual develops or not an omni-channel behavior.

An example of the limitation of demographic and socioeconomic factors can be seen in the age variable. Since the advent of information and communication technologies (ICT), companies have considered that older individuals are more reluctant to use touchpoints related to new technologies. The reason is that they are not considered digital natives. Therefore, retailers' business strategies have always emphasized the younger generation (Millennials or Generation Z). However, [10] show that people over 55 years old are the ones who have registered the greatest growth in omnibus purchases during the 2018-2020 period. It should be noted that this age group has high income, high level of education and relevant occupations in which ICT are frequently used. In addition, depending on the type of product in question, the customer may be a man or a woman. Therefore, defining an omni-shopper must be done based on the set of demographic and socioeconomic variables that may vary in relation to the product or sector being studied.

However, nowadays what companies are looking for is to obtain what has been called in the business world as a "buyer persona." It is usually a fairly frequent mistake to consider only those variables that are more basic or easier to observe/get. However, organizations need to go a step further and study the insights of

customers. Combine the Big Data—that defines "what"—and the small data—that explains "why"—[10], with the goal of knowing in a deep way who these men and women are that buy the products, what is their attitude towards the purchase, what are they really looking for and what are their needs, what are their motivations and degree of involvement, and what experiences they intend to achieve in each of the channels, physical and virtual, that they use in their relationship with the company.

In this sense, within the OCR literature more and more studies such as those developed by [11], [12] or [7] incorporate (in addition to demographic and socioeconomic variables) the psychographic variables such as, for example, utility, enjoyment, innovation, loyalty, pleasure of buying, time pressure, product category (utilitarian versus hedonic) or price consciousness. However, the psychographic variables are much broader and psychological variables such as self-concept, personality, lifestyle, motivations, interests, attitudes, opinions or values of the customer need to be analyzed. Our research is focused on the analysis of two specific drivers, the motivations that guide customer journey and his/her degree of involvement with the purchase, since their analysis is still scarce.

2.1.1. Motivations that guide the customer journey

Within the field of customer behavior there are different ways to classify the motives for buying in a brick-and-mortar retailer. One of the most recurrent categories is that proposed by [13], which differentiates between functional and non-functional motivations. The first group of motives is related to tangible attributes such as convenience, variety of assortment in the sales room, accessibility and/or comfort of the store, availability of information, immediate availability of the product, etc. On the other hand, non-functional motivations are linked to intangible attributes such as the image and reputation of the retailer, the need of customers to interact socially with other people during their stay in the sales room, or the search for new experiences during the purchase.

For his part, [14] makes a nuance of the proposal of [13] redefining the way to refer to motivations. [14] distinguishes between utilitarian and hedonistic motivations. Utilitarian motivations are produced when customers are oriented to seek functional or economic benefits. Hedonistic motivations, on the other hand, are associated with the emotional component of the shopper, and with the search for novel and enjoyable experiences during the purchase.

It can be concluded, therefore, that the motivations that influence purchasing behavior can be of two types. The functional or utilitarian motivations are oriented to respond to rational criteria and to the search for the most adequate, economic and/or efficient alternative and to extrinsic criteria. In the non-functional or hedonistic motivations lie the subjective and intrinsic impulses that are oriented to the search for and enjoyment of unique, positive and differentiating experiences during the time voluntarily dedicated to the purchase. Since the research of [14] includes the proposal of [13] and other relevant studies on motivations and is the most recent, in our research we will refer to utilitarian motivations and hedonistic motivations. Similarly, it should be noted that the review of the literature on motivations focuses on the physical channel. However, in the current omnicanal environment it is necessary to refer to the digital channel. So, utilitarian motivations and hedonistic motivations can be applied to both the physical and virtual environments, since the criteria guiding purchase are essentially the same.

In this sense, shoppers guided by utilitarian motivations will seek the channel that entails the lowest economic costs, time, effort and travel during the customer journey [15]. Therefore, it can be expected that the chosen channel will probably be the one related to ICTs. Traditionally, new technologies have been linked to the promotion of values of a functional nature such as economic savings, time and effort, convenience, comfort, confidentiality and variety of assortment. However, the physical channel is for many customers more useful, economical or practical than the virtual channel. It contains the variety of products that they consider appropriate, the promotions that the retailers carry out seem appropriate to them and, in addition, they obtain the immediate availability of the product. In short, if the motivations that guide customers journey are associated with practical and/or economic aspects, it is likely that they will develop a one-stop shopping behavior (through the online or offline channel).

On the other hand, customers who are guided by hedonistic motivations will probably develop an omnicanal behavior. Although the Internet is usually associated with functionality or utility, it is worth noting that many companies are currently promoting hedonic value. This is due to the fact that in many occasions it is

the first contact between company and customer (in the case of webroomers) and it can be a determining factor for the customer to buy or not in that firm. According to [9], the promotion of hedonistic values in the online channel requires the design of a website that favors usability and navigation and that is accessible from any electronic device—responsive design—. The usability will be promoted by a combination of colors, images and graphics that draw the attention of the potential shopper. Similarly, the quality of the information provided by the retailer on their websites about the portfolio they sell (detailing the price and main characteristics of the product, providing images from various angles or in 3D format, showing complementary products...), and about other aspects and services (ways to contact, delivery times, purchase history, personalized advice and recommendations, expert and influencer opinions...), means that the virtual channel is less impersonal and that the customer can interact with the retailer considering not only utilitarian value attributes but also non-functional ones [16].

The offline channel has always been a source of hedonic value. It allows the customer to use the senses of taste and smell, to interact with other people, to see, touch and try the products, and to receive personalized advice. Physical stores can also provide a visual, olfactory and auditory experience through their architecture, internal layout, lighting, colors, background music and odors that facilitate the development of positive customer perceptions. In addition, sales rooms are more suitable for shoppers to develop social relationships, both with the sales force and with other purchasers. We should not forget how the inclusion of ICT within physical stores, such as augmented reality, virtual fitting rooms, digital mirrors or i-beacons among others, can improve the shopping experience [17]. However, the offline channel also promotes utilitarian values such as the quality-price ratio offered by the retailer, the promotions it carries out, the accessibility and/or comfort of the establishment, variety of the assortment or the immediate availability of the product, which in turn help to promote hedonic attributes such as the retailer's image.

Bearing this in mind, the hedonistic motivations that guide the purchase will be linked to the combined use of physical and virtual channels. Those shoppers who spend time and effort in all stages of their decision-making will most likely use the online channel to search for information, evaluate alternatives or even share opinions and experiences with other customers to get a first impression and idea of what they want to buy. On the other hand, the offline channel will be the one chosen to make the purchase effective (i.e. to acquire the product) since it encourages the power to experience unique, positive and differentiating emotions and to interact with other people. This behavior responds to the profile of the so-called webroomers. Since there is no single omni-shopper [9], those shoppers who have a more digital profile and like to take advantage of e-commerce, known as showroomers, will choose the Internet to buy. The physical store becomes an ideal channel to form a proper opinion about what they want to purchase. In addition, the importance of these hedonistic motivations for customers means that they use sales rooms to experience pleasant emotions with retailers and socialize in search of the information needed to decide what they want and what they don't want. In summary, the following hypotheses can be put forward:

H_{1a}: Utilitarian motivations are positively associated with the development of a one-stop shopping behavior.

H_{1b}: Hedonic motivations are positively associated with the development of an omni-channel behavior.

2.1.2. Customer involvement during decision-making

Another key psychographic factor related to motivation is the degree of customer involvement in the purchase. Involvement reflects the importance the individual places on the specific attributes of the product he/she wishes to purchase, taking into account his/her interests and needs [18]. According to the Elaboration Likelihood Model—ELM—proposed by [19], customers with a high level of involvement with the purchase will make greater cognitive efforts when evaluating the product than those who develop a lower level of involvement.

The ELM conceives information processing as a continuum whose ends are formed by two levels of information elaboration, high and low. This gives rise to the two possible routes by which the individual can process the information, the central route and the peripheral route. Each of these routes reflects different amounts of cognitive effort. In this sense, in the central route the product, information and messages receive greater interest from the buyer, being examined in a critical, rational and in-depth way. In contrast, the peripheral route is used when shoppers do not feel motivated or capable of actively processing information to make a certain decision. Thus, they devote less attention to the information or messages received.

If customers are more involved with the purchase, their motivation to seek and obtain information will be higher and will be accompanied by a greater investment of time and effort (hedonistic motivations). Therefore, information and messages will be examined through the central route. That is, in a more critical, rational and deep way, developing a proactive behavior, looking for and paying more attention to the information related to the product. The central route is also enhanced by the customer's ability to perform information analysis at more complex and deeper levels, requiring prior knowledge of the subject or the ability to connect that information to previous experiences [8, 9].

In contrast, people who follow a peripheral route either do a superficial search or inspect few alternatives in order to find an acceptable solution in a short period of time. In other words, they try to save all the costs associated with the purchase (utilitarian motivations). Also, these individuals are more influential and their scarce knowledge and/or lack of previous experience make any element distract their attention and lose their capacity to make deep evaluations of the information received. Therefore, it can be concluded that the peripheral route is characterized by less cognitive reasoning than the central route.

Bearing in mind the characteristics that define an omni-channel behavior as opposed to a one-stop shopping behavior, it is possible to argue that, in general terms, the development of the first type of behavior appears more likely in those cases where the central information processing route is used. The greater involvement in shopping that leads to the use of the central route will facilitate the development of omni-channel behavior. The mix of different channels, online and offline, makes it easier for the customer to search, obtain, compare and evaluate specific information about the product and/or the retailer before the purchase. This individual acts as a "smart shopper" since he/she shows a more rational and reflexive behavior, in which he/she dedicates more time to decision-making and handles a greater amount of information. Thus, we propose:

H_2: The higher degree of involvement with the purchase is positively associated with the development of an omni-channel behavior.

2.2. External drivers

Within the study of the omni-channel behavior it is also convenient to analyze the external drivers linked to the strategies developed by the retailers. The possibilities are wide and can include decisions related to the 4 P's of the marketing-mix, as well as other decisions that have to do with elements that help encourage shoppers to combine channels, offline and online, during their customer journey.

In the previous section, we discussed how important it is for retailers to enhance functional and non-functional values, both online and in the physical store. The goal is for both channels to provide information and purchase. Thus, an answer will be given to the omni-shopper that can perform webrooming or showrooming. According to [20], retailers will have to restructure their business models. In particular, in this "new normal" that the COVID-19 has drawn up, there can be no "silo approach." The coronavirus pandemic has shown that physical and virtual channels are complementary and help increase business profitability.

E-commerce should be part of the commercial strategy of any retailer. The products that are sold do not have to belong to exclusive sectors that can already be considered traditional, since they are the ones that accumulate the greatest number of purchases due to the appearance of ICT, such as technical customer goods—TCG—. Nor do they have to be linked to "oddities" (which led to the rise of the long-tail), low-cost products or promotional products. The previously mentioned omni-channel practices, BOPIS, BOPUS or "click and collect", BOSS or "pickup today," BODFS and BORIS eliminate the possible fears of the companies about the decrease that online commerce means for the physical stores.

In this sense, the fast-moving customer goods—FMCG—sector, which in some countries was slower than the rest of the sectors in terms of e-commerce, has improved its results during the most critical months of the COVID-19. Retailers encouraged online purchases through "click and drive" or "drive-through," as shoppers come to pick up their purchases at their convenience without paying shipping costs. As a result, Walmart's app called "Walmart Grocery," grew 460% in daily downloads between January and April 2020, surpassing Amazon's app by 20% [21].

Meanwhile, luxury companies such as Chanel, Dior or Celine, firm e-commerce deniers, began to see the potential of the Internet to increase their business profits. Thus, they encouraged their most loyal buyers to use the electronic channel with several different strategies. The simplest one is to have the same catalogue and prices for several of their product, leaving the customer free to choose which channel he/she wants to buy from.

Another alternative is to incentivize the use of the Internet by giving e-shoppers samples or small versions of iconic products or brand novelties (which are not available in the physical store). Many companies opt for exclusive online launches that may or may not later arrive at the physical stores. Chanel applies this technique since its immersion in e-commerce in 2016 with great results. Its first experience was with the "Coco Crush" line of jewelry, which sold out on the same day of the launch, pieces worth more than 3,500 EUR [22].

One of the most recurrent strategies, especially when there are low sales in e-commerce, is to make attractive promotions. These promotions, although they have associated discounts on the price of products, the main goal is to increase the traffic of buyers in the online channel and that the customer pays more money. Some of the techniques applied by fast fashion retailers or TCG, among others, are the so-called flash sales. This strategy consists of offering high discounts or attractive offers during a short period of time (a few hours or a few days). In addition, because of the so-called online price dispersion [23], some retailers choose to apply the strategy known as "loss leader" in which they attract potential buyers with attractive prices in order to carry out cross-selling and up-selling practices and increase the shopping basket. Another alternative is what [24] and [25] call "switch-selling" or "bait and switch." It consists of retailers capturing the attention of a customer who is offered a product in which he/she is interested at a low price and then announcing that the product is not available by offering a similar product at a higher price.

Without prejudice to all these strategies discussed, the online channel must also be promoted to fully and deeply inform a specific type of omni-shoppers, the webroomers. As stated in the definition of webrooming behavior, the Internet is the first contact that these customers have with retailers and they can decide, to a great extent, to buy in the physical store of that same company.

However, the physical store, while still the most important touchpoint for retailers, needs to be enhanced. But, according to [20] and [26], with a more renovated concept that serves to respond to the different types of omni-shoppers (webroomers and showroomers). The sales rooms must be based on the flagship store concept, as the Burberry company has done in its London store. The aim is not to increase sales, but to create a brand image and to connect the company and its customers.

Sales rooms become showrooms where ICTs are part of the furniture and equipment of the store [27]. Thus, the space will not be saturated with merchandise. Only the most relevant items for the interests of the company at any given time will be displayed. The rest of the products will be shown through electronic devices (tablets), which provide enough information to make up for the lack of experimentation with the senses. Similarly, virtual reality and augmented reality techniques, among other possibilities, will allow customers to see the product in a real use situation improving, consequently, the shopping experience.

It is necessary to note that, in recent years, retailers have become critical of one of the specific categories of omni-shoppers, the showroomer. The showrooming customer is considered a threat to brick-and-mortar retailers [28]. Within the OCR literature, there is a tendency to think that this type of shopper always performs the so-called "competitive showrooming." As [29] posit, this practice consists of the buyer benefiting from the advantages of the physical store of Retailer A by purchasing, finally, in the virtual store of Retailer B. While this is true, the sales rooms can become a call for the showroomer to buy from the company's online store or use the offline channel. The incentive should be promoted by the sales force [30, 31].

Among the strategies they can apply, one is to showcase the products that are best priced against the competitors or to highlight the higher value of their items compared to other retailers. Another strategy is to identify (whenever possible) showroomers when they come into the sales room, using tablets or other electronic devices, and get them to make the purchase without leaving the physical store. Using Big Data, sentiment analysis, artificial intelligence—AI—or other ITC tools, the sales force will be able to access the purchase history and offer the right products to each buyer [1]. Likewise, the customer can be told about the benefits of purchasing in the physical store (e.g., promoting immediate availability). Or, since showrooming customers have a more digital profile, they can use the ICT available in the sales room or their own smartphones to place the order online and have it delivered to their home [26].

Taking into account the previous considerations, it is likely that when an organization develops some kind of action aimed at incentivizing its customers to visit the different offline and online touchpoints available, the omni-channel behavior will be enhanced. All these reflections lead us to make the following hypothesis:

H₃: The incentive for retailers to use offline and online channels is positively associated with the development of an omni-channel behavior.

III. RESEARCH METHOD

3.1. Research scope and sample design

To test the proposed hypotheses, we performed an empirical research choosing as reference product the smartphone, which has a penetration rate in Spain of 96% [32]. According to [33], the smartphone can be considered an experience product in which customers cannot evaluate a priori the technical characteristics, nor are they able to determine whether the choice of one mobile telephone over another (for example, Android versus iOS) will provide them with greater utility, positive experiences or satisfaction. In this sense, to try to avoid the risks associated with the purchase of these electronic devices, customers seek information using both physical and virtual channels. Later, they will choose based on their motivations guide (utilitarian versus hedonistic), degree of involvement in the purchase and/or incentives, if they purchase the smartphone offline or online. This fact increases the development of the omni-channel behavior. The study for the Spanish market conducted by [34] reflects this fact. 54.5% of shoppers who bought their smartphone in a physical store had previously reported online (webrooming behavior). On the other hand, 47.4% of the buyers who purchased their mobile device online had reported to the physical store (showrooming behavior).

To achieve the objectives of the present study, we performed a personal survey on a sample of individuals over 16 years old who were in the process of buying or had recently bought a smartphone. This ensures that the respondents keep their shopping experience fresh. Consequently, they remember what motivations (utilitarian or hedonistic) guided them in their decision-making, their degree of involvement in the purchase of the electronic device, and whether the retailers where they had made the purchase had incentivized them to use alternative channels. According to [35], this methodology allows for direct questioning of the respondent in real situations. Thus, asking about a real-life experience will generate responses that are not based on assumptions and that will allow measurement of whether the proposed internal and external determinants influence the development of omni-channel behavior. The profile of the sample is shown in Appendix.

3.2. Measurement of the model variables

Two types of questions have been used to measure the omni-channel behavior (Appendix). First, a dichotomous question was used that takes the value 1 when respondents specified that they had made their customer journey by combining the physical and virtual channels. The value 0 represents the respondents who indicated that they made their decision-making through a single channel (regardless of whether it was offline or online). Later, to make sure that the purchase behavior was indeed omni-channel or one-stop shopping, a second question was included that referred to the offline and/or online information sources used during the customer journey, and the place (physical store or virtual store) chosen to acquire the smartphone.

The measurement of the independent variables of the research has been done through a series of items obtained in the bibliographic review carried out in this study. All items were evaluated on an 11-point Likert scale, where 0 implied total disagreement and 10 total agreement with the statements made (Appendix).

IV. RESULTS

A factorial analysis (STATA 12) was considered appropriate to reduce the dimensionality of the data matrix. Following [36], for each hypothesis, the items that conceptually mediate similar constructs in a single factor were summarized [37], obtaining the explanatory variables to be estimated (Appendix). The factorial analysis shows the resulting number of factors with their eigenvalue (variance) and the proportion of the variance explained by each factor. It also shows the contribution of each of the variables to the creation of the factor with its sign (weights). To determine the suitability of the factorial analysis, the KMO test (Kaiser-Meyer-Olkin) was calculated to exceed the minimum value of 0.5 [38]. The Bartlett's sphericity test was also performed, which indicates the existence of significant correlations between the variables ($p < 0.05$).

The decision on the number of factors to use is usually made based on the Kaiser criteria. This criterion specifies that the retention of any component must have an eigenvalue equal to or greater than 1 [39]. However, in this research, as what is intended to achieve is the one-dimensionality of the constructs, it was taken as a

decision criterion that the proportion of the variance explained by the first factor is significantly greater than that of the second factor resulting from the factor analysis [39]. As results, the independent variables obtained are: *utilitarianmotive*, *hedonisticmotive*, *involvement* and *incentive*.

Table 1. Binomial logit model estimated for omni-channel behavior

Variables	Coefficient	Robust Std. Err.	Marginal effects	
			dx/dy	Robust Std. Err.
utilitarianmotive	-0.338***	0.129	-0.080***	0.030
hedonisticmotive	0.423***	0.136	0.100***	0.032
involvement	0.296**	0.117	0.070**	0.028
incentive	0.064*	0.035	0.015*	0.008
gender	-0.203	0.185	-0.048	0.044
age	0.279	0.197	0.066	0.047
education	0.622***	0.195	0.147***	0.046
_cons	-0.972***	0.199	-	-
Observations = 636				
Wald chi2 (8) = 109.65***				
Pseudo R2 = 0.1538				

Notes: *p < 0.10; **p < 0.05; ***p < 0.01. Marginal effects (dy/dx) are evaluated in the sample mean

The results obtained show that the utilitarian motivations that guide the customer journey are positively associated to the development of a one-stop shopping behavior, providing support to the first hypothesis of the research, **H$_{1a}$**. In the case of the relationship posed between hedonistic motivations and omni-channel behavior, the effect of this variable is positive and significant, which allows the acceptance of the **H$_{1b}$** hypothesis. The marginal effect of the variable implication reflects a positive association with the omni-channel behavior, giving support to the hypothesis **H$_2$**. The results show that there is a positive relationship between the incentives made by retailers and the omni-channel behavior, therefore the last hypothesis of the research, **H$_3$**, is confirmed.

With regard to demographic and socioeconomic variables, the results are in line with other OCR studies. These variables do not help to explain why the shopper combines offline and online channels during the customer journey. The results in Table 1 reflect that the level of studies is the only explanatory factor of the omni-channel behavior. Thus, it seems that those customers who have a higher level of education (Bachelor's degree) are more likely to combine the physical and virtual channels during the purchase journey than those with lower levels of education.

To contrast whether or not the customers were omni-shoppers, a binomial logit model was estimated using the STATA 12 statistical software. Table 1 shows the results of the hypothesis contrast showing the values of the coefficients of the different independent variables, their robust standard error and an indication of their level of significance. Also, the marginal effects have been calculated to express the change in the dependent variable caused by changes in the explanatory variables. In general, the parameters have a good overall significance and there is a high level of correct predictions.

V. CONCLUSION

The aim of this work was to analyze the drivers that affect the development of an omni-channel behavior. Our research is focused, on the one hand, on studying the internal drivers directly related to the customers. Specifically, the utilitarian and hedonistic motivations that guide the purchase, and the degree of involvement of buyers in it. On the other hand, we have analyzed the external drivers linked to the company-customer relationship, focusing on the incentives made by retailers for shoppers to use their alternative channels.

The results obtained from the estimation of the proposed model ratify that, those customer journeys that are guided by hedonistic motivations are positively associated with the development of an omni-channel behavior. Individuals who voluntarily dedicate time and effort to the purchase will combine offline and online channels so that information, availability or variety of assortment that cannot be obtained in one channel

(whether physical or virtual), is achieved by using the alternative channel. In the case of customers who put utilitarian motivations before any other, they will develop a one-stop shopping behavior. When the goal is to seek the maximum possible savings in costs associated with the purchase, it is most likely that buyers will only use the online channel. Traditionally, ICT is associated with values such as comfort, convenience and time savings. On the other hand, those customers who seek practicality, good value for money, accessibility and immediate availability of the product will tend to use the offline channel exclusively, since it has always promoted these utilitarian values.

The results also reflect that buyers who show a high degree of involvement during their decision-making develop an omni-channel behavior. Involvement is directly and positively related to cognitive effort. In this sense, when shoppers are involved in the purchase of the product in question, they will proactively seek out as much information about it as possible. Following the central route of information processing they examine in a deep, critical and rational way all the available messages. Therefore, the information obtained will be more complete for later analysis, as it combines the physical channel (which allows interaction with the seller and experience through the senses) and the virtual channel (accessing complete technical information and comments from experts and other customers about their shopping experience with a given retailer, as well as with the use of the product).

In addition to internal customer factors, for individuals to become omni-shoppers it is critical that retailers encourage the use of all available channels in the organization. While today's customers are rarely one-stop shoppers, they may use the offline channel more intensively than the online channel, or vice versa. Without retailers trying to turn omni-shoppers into one-stop shoppers or directing their customer journey, strategies can be implemented to promote a channel at certain times to return the investment made in the channel or for customers to try out new experiences in the alternative channels available.

Finally, our results confirm, in line with other OCR studies, that demographic and socioeconomic variables do not provide conclusive results, but rather depend on the product or sector being analyzed. The only explanatory factor in this research is the level of studies, which has a positive and significant effect on the omni-channel behavior. Thus, it seems that having Bachelor's degree implies a lesser or no knowledge of ICT. This implies that individuals combine the new technologies with the offline channel to buy.

Considering the results derived from the empirical research conducted in TCG retail, our study has relevant implications for companies. Since omni-channel is the "new normal" in retailing environment, concepts such as "buyer persona" have emerged strongly in the business landscape. The goal is for companies to be able to draw the profile of their target as real as possible. It is common for retailers to use only the classic demographic and socioeconomic variables. But what is really interesting is to have information about aspects that measure psychographic variables. Knowing the customer's insights, and why and for what purpose they use the offline channel and the Internet, is important for retailers to convert their physical and virtual stores into bivalent channels. This means that both channels are able to inform in depth and the product can be acquired easily.

For this reason, companies are recommended to invest in ICT systems such as Big Data, not to mention small data. According to [40], these two techniques are complementary. While Big Data provides information about "what," small data explains "why." As a result, retailers will have access to a large amount of information in real time about who their customers are, their motivations, where they are, what they want, how and when they want to be contacted, and the history of visits to the website (behavioral targeting and retargeting), etc. In addition, due to the sentiment analysis technique, it is possible to know what customers think in social networks and what role they assume, opinion leaders or influencers, followers or trolls. This greater knowledge of buyers will allow retailers to profile the OCR strategy and adapt the response through physical and virtual channels.

Similarly, companies need to take a proactive stance in incentivizing omni-channel behavior. Today's customers do not differentiate between the physical and virtual environment, they just want to buy [26]. Therefore, all the touchpoints that allow and improve the relationship between companies and shoppers must be enhanced. At this point, it is worth suggesting to retailers that, although each channel has its own idiosyncrasy (i.e., the Internet as opposed to physical stores is considered to be a more utilitarian channel), it is necessary that they promote the value that has less weight. In this sense, the customer will be given freedom to move among the available channels during the different stages of the purchase journey, without worrying that the change of channel will prevent them from resuming the purchase where they left off or living a seamless shopping experience.

Consequently, virtual stores should increase the hedonic values by showing as much information as possible about the products that replace the lack of direct experience with the senses. They should also be friendly and responsive design environments where the purchase is made in simple and fast steps. On the other

hand, physical stores will be showrooms where ICT will have an important weight to increase information and help the potential customer to buy from that firm and not from a competitor. The tablets, either as part of the furniture of the sales room or as another tool for the sales force can help the buyer to make his/her order in-store, without prejudice to execute it offline or online. In addition, retailers are encouraged to develop Integrated Marketing Communication (IMC), sending a clear, consistent and compelling message about the organization and its products through the various offline and online channels, generating a unique overall experience in each moment of truth (customer experience) and incentivizing customers to move from one channel to another. Although it is true that, at specific moments, the call of attention can be increased on one of the channels that may have less customer traffic and, consequently, less profitability.

Finally, managers of brick-and-mortar stores should be reminded that enabling the use of virtual channels can generate interdepartmental friction. In particular, with the sales force in the stores, since they are likely to consider online channels as cannibalizing their efforts and subtracting their sales commissions. Therefore, it is important that the marketing and human resources departments actively collaborate to develop selection processes (for new employees) and training (for those who are already part of the firm), in which skills related to the handling of digital devices and the virtual world are included as an essential component. It is also necessary to recommend the importance of developing an action protocol for salespeople to facilitate online purchases from inside the sales room, either through their own electronic devices or through customers' smartphones. On the other hand, the managers of the sales area should implement motivation and incentive policies so that the sales force does not see their company's virtual store or other platforms where they are present as competitors. Salespeople should be able to achieve the incentives for sales achieved regardless of whether they are made in the physical store or if the buyer acquires the product online guided by the seller in-store itself. A conclusion section must be included and should indicate clearly the advantages, limitations, and possible applications of the paper. Although a conclusion may review the main points of the paper, do not replicate the abstract as the conclusion. A conclusion might elaborate on the importance of the work or suggest applications and extensions.

VI.   Limitations and future lines of research

Among the most important limitations of this study is the fact that it is a cross-sectional study focused on a moment in time. Additionally, the research is focused on a specific product, the smartphones, which recommends caution when extending or generalizing the results to other sectors and customer goods. The drivers of omni-channel behavior were measured through three variables: motivations that guide shopping journey, the degree of customer involvement in decision-making, and the incentives for retailers to use alternative channels. Other psychographic variables may be the subject of future studies.

Future research could be directed at considering omni-channel behavior as a variable with more than two categories that reflects the different combinations that customers can make of the physical and virtual channels at each stage of the customer journey. Similarly, given the rise of two specific omni-channel behaviors, webrooming and showrooming, it would be interesting to conduct an analysis with each of these behaviors to find out whether or not there are differences in the drivers, since it is often considered that webroomers and showroomers are antagonistic profiles. It would also be valuable to carry out a joint study of the drivers that influence the development of an omnicanal behavior and the consequences that such behavior produces for retailers. This will not include the volume of purchases made by the customer or other quantitative measures of behavior, but rather cognitive-affective variables, the analysis of which is scarcer [9].

Finally, future studies could be carried out in other sectors in order to evaluate whether the variables studied present the same results. In this sense, it would be interesting to analyze sectors where there is a high degree of implementation of OCR, such as the fashion, footwear, sports equipment, beauty and other goods/services in the luxury market due to the boom that e-commerce has experienced in these areas [41]. It would also be relevant to analyze the sector of high rotation products such as FMCG which, although it had a low e-commerce index, during the most convulsive weeks of the COVID-19 it has grown as much as in the last decade. Furthermore, these products cited present different degrees of involvement in the purchase, therefore, one could evaluate the possible differences between the drivers and, especially, in the demographic and socioeconomic variables whose results are not determining in the OCR literature.

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VII.   Appendix

Table A1. Descriptive statistics

Variables	Sample		Omni-shoppers		One-stop shoppers	
	636	**100.00%**	**261**	**41.04%**	**375**	**58.96%**
Gender						
Male	303	47.6%	129	49.43%	174	46.40%
Female	333	52.40%	132	50.57%	201	53.60%
Age						
16-24 years	81	12.70%	50	19.16%	31	8.27%
25-44 years	281	44.20%	145	55.56%	136	36.27%
45-64 years	169	26.60%	50	19.16%	119	31.73%
>65 years	105	16.50%	16	6.13%	89	23.73%
Education						
No education	9	1.40%	0	0.00%	9	2.40%
Primary education	109	17.10%	50	19.15%	59	15.73%
Secondary education	237	37.30%	166	63.60%	71	18.93%
Bachelor's degree	281	44.20%	225	86.20%	56	4.93%

Table A2. Omnichannel behavior measurement (first question)

Items	%
Referring to the shopping journey, say which one of these sentences more closely reflects your buying behavior	
I used just a single channel (physical store or the Internet) during my shopping journey	59.00
I used physical store and the Internet during the shopping journey	41.00

Table A3. Omnichannel behavior measurement (second question)

Items	% Offline		% Online	
	Yes	No	Yes	No
INFORMATION SOURCES: Referring to the shopping journey, say which of these sources you used for searching for information				
Mobile phone manufacturer's stores (e.g. Apple Store, Apple Online Store)	14.78	85.22	27.79	72.21
Telecom stores (e.g. Vodafone Store, Vodafone Online Store)	76.26	23.74	40.88	59.12
Category-killers (e.g. FNAC, Media Markt…)	25.94	74.06	15.09	84.91
Department stores	23.11	76.89	12.58	87.42
Others (friends, relatives, catalogues, social media, blogs, shopbots…)	16.51	83.49	12.11	87.89
SHOPPING PLACE: Say which one of these places you chose to purchase your smartphone				
Mobile phone manufacturer's stores (e.g. Apple Store, Apple Online Store)	1.73	98.27	1.57	98.43
Telecom stores (e.g. Vodafone Store, Vodafone Online Store)	67.30	32.70	11.01	88.99
Category-killers (e.g. FNAC, Media Markt…)	4.25	95.75	0.31	99.69
Department stores	6.92	93.08	0.31	99.69
Others (friends, relatives, thrift shop, social media, eBay…)	7.08	92.92	1.73	98.27

Table A4. Independent variables

Motivations that guide the customer journey			
Items	**Code**	**Mean**	**Standard Deviation**
Utilitarian motivations			
Price	UM1	8.51	1.95
Promotions and special discounts	UM2	8.24	2.01
Variety of smartphones available for sale	UM3	6.99	2.31
The range of opening hours	UM4	6.54	2.38
Proximity (to home, workplace, etc.)	UM5	6.78	2.36
Hedonistic motivations			
The smartphone incorporates the latest technological innovations	HM1	6.40	2.77
Smartphone brand's reputation	HM2	6.57	2.50
Retailer's reputation	HM3	6.33	2.44
The possibility of inspecting the smartphone (see, touch, test, etc.)	HM4	6.86	2.34
The possibility to get opinions and advice from people close to you (friends, family)	HM5	6.62	2.44
The possibility of obtaining opinions and advice from other users (other than friends and family)	HM6	5.90	2.57
Sales staff attention	HM7	7.60	2.08
Services provided by the retailer (warranty, after sales, etc.)	HM8	7.75	2.08

Customer involvement during decision-making			
Items [42,43]	**Code**	**Mean**	**Standard Deviation**
Cognitive involvement			
It is very important to me	CGI1	8.51	1.95
I am very interested in	CGI2	8.24	2.01
It is very valuable to me	CGI3	6.99	2.31
Necessary	CGI4	6.54	2.38
I pay special attention	CGI5	6.78	2.36
Emotional involvement			
What I love	EMI1	6.40	2.77
I am very attracted to	EMI2	6.33	2.44
It fascinates me	EMI3	6.86	2.34
It is very related to my lifestyle	EMI4	6.62	2.44
It means a lot	EMI5	7.75	2.08

Table A5. Factorial analysis

Utilitarian motivations							
Number of factors	**Eigenvalue**	**Variance**	**Factor 1 weights: *utilitarianmotive***				
			UM1	**UM2**	**UM3**	**UM4**	**UM5**
Factor 1	**1.99**	**0.99**	**0.41**	**0.50**	**0.63**	**0.82**	**0.71**
Factor 2	0.64	0.31	-	-	-	-	-
Test KMO: 0.635; Bartlett's Sphericity Test: χ^2 (10) = 936.70 (p = 0.00)							

Hedonistic motivations											
Number of factors	**Eigenvalue**	**Variance**	**Factor 1 weights: *hedonisticmotive***								
			CGI1	**CGI2**	**CGI3**	**CGI4**	**CGI5**	**EMI1**	**EMI2**	**EMI3**	**EMI4**	**EMI5**
Factor 1	**3.49**	**0.58**	**0.80**	**0.88**	**0.83**	**0.53**	**0.87**	**0.91**	**0.91**	**0.87**	**0.84**	**0.88**
Factor 2	1.20	0.20	-	-	-	-	-	-	-	-	-	-
Test KMO: 0.931; Bartlett's Sphericity Test: χ^2 (45) = 7247.80 (p = 0.00)											

Involvement									
Number of factors	**Eigenvalue**	**Variance**	**Factor 1 weights: *involvement***						
			HM1	**HM2**	**HM3**	**HM4**	**HM5**	**HM6**	**HM7**
Factor 1	**7.04**	**0.84**	**0.55**	**0.73**	**0.72**	**0.74**	**0.72**	**0.69**	**0.52**
Factor 2	0.80	0.09	-	-	-	-	-	-	-
Test KMO: 0.744; Bartlett's Sphericity Test: χ^2 (28) = 2416.17 (p = 0.00)									