

The experience of anticipating the use of a technology. The case of digital tools in stores

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Relationship Marketing

Abstract:

Digital tools are increasingly being implemented in points of sale, generally with the aim of helping consumers make their choices and / or improving the visit experience. However, their responses range from enthusiasm to rejection. In order to go beyond the static explanatory frameworks of the adoption of a technology (such as the TAM model), the objective of this research is to better understand how visitors experience the experience of this anticipation of use of a technology in store. Based on a qualitative interview study, she offers a conceptualization of this anticipatory experience made up of six dimensions: Utility, hedonic, functional, temporal, autonomy and symbolic.

Keywords: *User anticipation experience, Digital tools, Customer experience*

1. Introduction

The proliferation of digital point-of-sale tools coupled with the ubiquitous paradigm (Badot and Lemoine, 2013), promotes their expansion and puts store managers in front of the obvious. It is in their interest to adapt the tools to the changing expectations of their customers. Several sectors have experienced in recent years an intrusion of diverse and varied digital tools. We are also witnessing a craze for the installation of digital tools in the sales areas of stores of all sizes. This digitization generally aims (see appendix 3), to reduce costs (Porter, 1985), to improve the visit experience and / or the shopping experience. A large majority of the tools are dedicated to pre-sales and therefore mainly aim to improve the customer transformation rate. The customer experience appears to be an undeniable lever for achieving the various objectives (Verhoef et al, 2009; Gentile et al, 2007; Gilmore and Pine, 1999). It is defined as "An interaction between an individual and an Object that creates meaning" (Filser, 2008) or even "An internal and subjective response of consumers to the slightest contact with a company, whether direct or indirect" (Meyer et al. Schwager, 2007, p.118) and falls within the framework of the Person - Object - Situation paradigm (Belk, 1975; Punj and Stewart, 1983). Many research studies on experience agree on the fact that it is a process with several phases (Arnould et al, 2002; Roederer, 2008), and each more and more dedicated to a specific digital tool.

The objective of this article is to study the experience of anticipating the use of digital tools, to determine their content (dimensions). We define it as the set of projects, dreams, imaginations, or fantasies related to the use of digital tools, in which the customer immerses himself when he thinks of a shopping experience. Our interest in this concept is justified by the fact that it allows, beyond the developments of the TAM model (Davis et al, 1989), to explain the appropriation (use) of the digital tool by customers, all considering the emotional aspects.

As part of this research, we opt for a part-based approach to the overall experience. This, to consider the time prism in the analysis of the customer experience and to highlight the anticipation phase, relatively little studied until then compared to the other components of the overall experience. The approach adopted emphasizes the anticipation phase which is crucial in the analysis of the overall consumer experience. And as mentioned in the literature, without which, the other phases cannot be properly considered. The flow of our article continues first with the presentation of the theoretical framework, then the presentation of the methodology and the main results discussed will follow, before concluding.

2. Theoretical frame

Since the seminal article by Holbrook and Hirschman (1982), the consumption experience has been the subject of several studies which have allowed it to be treated almost from upstream to downstream.

From the anticipation experience

It is during research on the concept of customer experience that a design has appeared in the literature, completely breaking with those always stated: the design of the experience under the prism of time (process) Arnould et al. (2002). The major specificity of this design is to divide the experience into four phases: anticipation, purchase, consumption, and memory; process that Roederer (2008) and Tynan and McKechnie (2009) will summarize in three stages (before experience, heart of experience and after experience). As such, the anticipation experience constitutes a crucial phase of the overall experience experienced or perceived by a consumer. It can only be conceived of as a full-fledged experience when the customer does not arrive at the other phases of the experience. It remains in the phase of waking dreams, of fantasies ... Also, being the first phase of the experience, on which the progress of others depends, it deserves to be studied for an experience. both seamless and uninterrupted (Belvaux and Notebaert, 2018) until after the experience (Arnould et al, 2002).

Vichiengor et al. (2019) define anticipation as the phase of the customer experience corresponding to the moment when the customer is preparing to consume a product or service, anticipating it. Other authors define it as researching, planning, dreaming, arousing, budgeting, or fantasizing the experience (Carù and Cova, 2015). This anticipation differs depending on the areas in which the customer decides to make his purchases. It is found to be strong in tourism, for example, although affecting other sectors as well.

The main characteristics of the anticipation experience are:

In studies relating to the field of choice of tourism products, it is not uncommon for the experience of anticipation to begin long before the actual act of purchase (Rosch, 1987; Chan and Mukhopadyay, 2010). This is not always the case with other types of products. Thus, it takes place when there is a gap between the first thoughts on the product and its actual acquisition. It is often present in the case of involving purchases.

It includes both thoughts, feelings and sensory images that surround the coming event; and is linked to the aspirations of consumers, their environment, knowledge, and experiences.

The antecedents of the anticipatory experience are considered: the experience of remembering and the motivations. With three main factors essential to its achievement:

motivational factors (Maclinnns et al, 1991) correspond to perceived utility; suitability (Vichiengior et al., 2019) to perceived ease of use and the expediency factor, at the right time.

They give rise to three types of consequences: affective (with image-building; Schubert, 2012), behavioral (with information gathering and preparation; Harrison and Beatty, 2011) and cognitive. All of what the customer develops in the anticipation experience process (Vichiengior et al., 2019) constitutes his expectations regarding his consumer object taken as a whole (global product / service).

In addition, the theories of hedonic adaptation (hedonic treadmill) state that: Events that were previously a source of pleasure or pain gradually lose their emotional power over time and following repeated exposure (TD Wilson and Gilbert, 2008). With the aim of always providing their customers with a special experience, a guarantee of differentiation and loyalty; emotions are understood as essential factors and are at the heart of business forecasts (activities) in the design of experiential contexts (Roederer, 2008) (Apple products, Harry Potter, etc.).

About Digital tools ...

From its etymological meaning, *digital comes from the Latin word “digitus” which means finger. Is called digital; any object that requires the use of fingers* (Belvaux and Notebaert, 2018, p12). By digital tools we mean technological tools that are first manipulated using the fingers. At the point of sale, they promote better commercial efficiency and re-enchantment, thanks to the development of a better customer experience. Their installation in store is materialized by various tools and technologies which are integrated, in order to offer a better experience to the customers. Given that the consumer apprehends the value by confronting the sacrifices with the benefits perceived during an experience (Marion, 2013), the creation of new experiences facilitating the services and acts of purchase to satisfy the consumers in store becomes a major priority for retailers.

Also, in this research, we put forward a definition of digital tools including at the same time, the tools / objects themselves and the technologies that make them work or facilitate the interoperability between the tools / objects. Their function is to inform, collect, store, and analyze information relating to the purchase of a product or service (we propose a classification of digital tools for customer use in stores in Appendix 2). This leads us to affirm that all the concepts: internet of objects (Kurtaliqi, 2016) or even ubiquitous technology (Salinas Segura et al, 2015) as defined by its authors, overlap to form a coherent whole whose benefits are perceptible by the consumer through the experience he experiences at the point of sale. Digital tools are of several types and currently concern several areas (home automation,

health, distribution, etc.). Some researchers, to distinguish point-of-sale digital tools from those in other universes, have specifically called them "shopping connected device" (Kurtaliqui, 2016).

About Anticipation experience and digital tools ...

More than 54% of digital point-of-sale tools are dedicated to pre-sales, and primarily aim to improve the conversion rate and thus contribute to the anticipation experience (Arnould et al, 2002; Roederer, 2008 and Tynan and McKechnie, 2009). The increasing competitive intensity now makes the customer experience a key differentiator for brands and an almost vital issue in setting themselves apart from their competitors. Digital tools come at the right time, to stimulate the desire of current and future consumers to form expectations about their products. This anticipation can take several forms (planning, preparation and collection of information, anticipatory problem-solving behaviors, etc.), with a feeling of pleasure for the consumer in certain cases, better than the realization (Alba & Williams, 2013, p7; Harrison & Beatty, 2011).

Regarding the role of brands, Schatzel and Calantone (2006) state that prior announcement and anticipation improve the success of new product launches (the case of Apple products, Harry Potter, etc.). Also, in certain cases of hedonic consumption, the anticipation of the use of a digital tool can increase the pleasure, compared to a situation of non-anticipation (Nowlis, Mandel and McCabe, 2004) and can develop the evaluation of subsequent consumption by consumers (Chan & Mukhopadhyay, 2010). A positive relationship is also recognized in the literature between this anticipation of the consumer vis-à-vis the pleasure of consumption and the subsequent evaluation of the latter (in our case, use of the digital tool) (Vichiengior et al. 2019).

3. Methodology

Being in an emerging field of research, as written very well, "Despite all the work carried out, research has so far failed to specify the content of what happens during the waiting period" (Chan and Mukhopadhyay, 2010; Vichiengior et al., 2019; Lee and O'connor, 2003; Schatzel and Calantone, 2006), we sought to capture the dimensions of the experience of anticipating the use of digital tools.

We proceeded with an exploratory qualitative study through semi-structured interviews with customers of digitalized points of sale. Resonating with the literature, we had developed an interview guide that we tested and had an expert validate. This guide has four main themes:

apprehension of the use anticipation experience, motivations and opportunities, capacities and aptitudes, and consequences of the usage anticipation experience. Several sub-themes which gave rise to questions, with the aim of understanding the content of the concept.

A diverse sample was formed (Appendix 1) and we stopped semantic saturation interviews (Miles and Huberman, 2003). A total of 19 semi-structured interviews were carried out, for a corpus of 207 pages. The process of analyzing the results took place in two stages. First, a thematic content analysis by Paillé and Mucchielli (2008), by manual coding and software. Then, a textual analysis using the Nvivo 12 software. Throughout the analysis, we went back and forth with the theoretical framework and proceeded by grouping them by topic.

4. Principal results and discussion

In the various developments of the respondents, we identified several tools (see Annex 2) that they use, starting from the personal telephone (smartphone), the interactive terminal, the automatic checkout, to other more sophisticated tools such as augmented reality or virtual reality. Among these tools, most are set up by points of sale. Apart from the smartphone, which is specific to the customer, which he brings back to the point of sale. It should also be noted that most of the tools cited by them are used in the pre-sales phase and help them in their selection process, expand the store's offer and improve their experience. More generally, they participate in their decision-making.

It emerges from the analyzes of the speeches that the experience of anticipation of use is generally lived in the cases of implicit and uncommon purchases, in points of sale with a strong technological connotation. The stories collected made it possible to form six dimensions of the experience of anticipating the use of digital tools: Utility, Hedonic and fun, Functional, Autonomy, Symbolic, Relation to time.

The experience of anticipating the use of digital tools at the point of sale depends on what the tools provide (utility dimension): “For the purchase, **the search for information** often means gaining autonomy and **saving time** and **avoiding queues**” (E13). “Basically, my reasoning is generally based on **saving time**. I am thinking of the different tools that can allow me... typically, to **guide me, take information...**” (E18)

The hedonic and playful dimension (Pleasure, entertainment, etc.) refers to the pleasure / displeasure polarity with respect to the tools that customers expect during the anticipation phase: “In my forecasts, I make sure that the utility side is at the rendezvous as well as **to**

have fun and create emotion. I also always consider my current condition as a mother. My son finds it fun to **play with digital tools, it amuses him and me too**" (E10).

The experience of anticipation of use also abounds in the functional dimensions (practicality, intuitiveness, etc.): "They are very **intuitive**. Whether at the self-service checkouts or the McDonald's kiosk, **everything is intuitive**... In general, you **will be able to get by if you can read**..." (E1). "The image of what I want to buy is shown along with the price. By clicking on it, I have the possibility to have the details on the composition.... **the use is simplified**" (E2) and autonomy dimension (freedom of activity ...) "I used tools ... Their use is simple and **allows you to be autonomous ... without talking to a third party**" (E16).

The symbolic dimension, for its part, stems from the social or political conviction of the individual: "My interest in technology is mixed ... I think it will **cause several people to lose jobs**" (E13).

Finally, the dimension of time (saving time, optimizing decision-making time, etc.) emerges in almost all speeches and relates to the customer's conception of the time he spends in the store.

5. Conclusion

The theoretical contributions of our research are focused on enriching the experiential paradigm, through the restitution of a conceptualization of the experience of anticipating the use of digital tools; based on the literature and our qualitative study. They come to enlighten the researchers and managers of the brands on the content of this concept which they can rightly now evoke (Lee and O'connor, 2003; Schatzel and Calantone, 2006), considering the temporal prism of the experience.

From a strictly managerial point of view, our research allows managers to:

- Better understand the reasons why customers will use this or that other digital tool at the point of sale, what they expect (utility, recreational, time ...)
- Segment the clientele, to offer visits adapted to each of the segments (See, for example, those who need support or want to make solitary use of the tool)
- Develop the shopping experience by skillfully using tools.

Finally, there are limits to our research. It only enumerates the constitutive dimensions of the experience of anticipation of use without quantifying it. This cannot be generalized, in view of the sample. On the other hand, as part of our doctoral research, the rest of the research will be

to collect data as part of a quantitative study, to develop, test and validate the measurement scale of the concept.

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Appendix 1 - Sampling table

Code	Gender	SPC	Age	City	Digital appetite	Duration
E1	M	Engineer	33	Dijon	Strong	40
E2	M	Student	30	Amiens	Strong	43
E3	F	PhD Student	34	Dijon	Mean	50
E4	F	PhD Student	32	Dijon	Weak	45
E5	F	Unemployed person	26	Paris	Strong	42
E6	F	Retirement	70	Rouen	Weak	35
E7	F	Student	21	Dijon	Weak	38
E8	F	Engineer	35	Dijon	Mean	40
E9	M	Student	18	Dijon	Mean	39
E10	F	PhD Student	26	Montpellier	Strong	40
E11	M	Student	21	Dijon	Mean	30
E12	M	Retirement	69	Rouen	Mean	29
E13	F	Librarian	53	Dijon	Weak	40
E14	F	HR	40	Grenoble	Weak	35
E15	M	Speech Therapist	24	Nantes	Strong	50
E16	M	Student	19	Auxerre	Strong	45
E17	M	Unemployed person	34	Dijon	Strong	51
E18	F	Student	26	Tours	Mean	43
E19	F	Student / Saleswoman	19	Auxerre	Strong	70

Women	11
Man	8
Professional Situation	
Student	6
Worker	9
Unemployed person	2
Retirement	2

Average age: 33.16 years

Appendix 2 - Proposal for a non-exhaustive extract of the classification of digital point-of-sale tools

	Utility	Hedonic	Mixt (Utility-hedonic)
Specific to the point of sale (customer-seller use)	Terminals, tablets, clientelling, interactive showcase, dynamic POS, TPE NFC	Interactive showcase, dynamic POS, test tables	Interactive showcase, dynamic POS
Specific to the point of sale (customer use)	Terminals, tablets, screens, e-scanning, self-service checkout, persistent shopping cart, clientelling, click & collect app, virtual fitting, connected beacons, digital wall, electronic labels, virtual shelf	Terminals, tablets, robots, giant screens, virtual fitting, augmented reality, VR headset, holograms, smart mirrors, interactive showcase, sound shower, virtual shelf	Terminals, tablets, screens, virtual fitting, virtual shelf
Specific to customers (customer use only)	Smartphone, connected watch	Smartphone, tablet, connected watch	Smartphone, connected watch

Appendix 3 - inventory of point-of-sale digitization objectives

Digitization objectives	Description	Example
Cost reduction and business growth	The points of sale, by integrating a digitalization process, hope to lower their production costs of the sales department. Also, this digitization contributes to the simplification of the act of purchase of consumers. Interactive digital tools facilitate consumer orientation and provide the point of sale with dynamic sales assistance.	Mc Donald, Sephora, Tesco - South Korea
Help in choosing	Through digital tools, consumers have the possibility of having access to a greater amount of information on the products they wish to buy. This encourages them to make decisions on the choice to be made and simplifies their purchasing journey.	Interactive terminals at Mc Donald's, SNCF
Improve the customer experience (visit or purchase) and make the environment spectacular	More and more demanding consumers want to be offered rather fluid and personalized relationships at the point of sale, as well as on the internet. They are looking for a unique and attractive experience. Digital tools, through successful theatricalization, will make the sales environment spectacular (Kozinets et al., 2004; Borges et al., 2015) and much more attractive for them Collin-Lachaud and Vanheems (2016).	ClubMed Champs-Élysées, T Cook, Undiz Machine, Sephora la Défense
Extension of the offer	Digital tools are an expander of offers to the extent that points of sale are no longer obliged to display their entire assortment in the sales area. They make it possible to optimize the use of this space.	Virtualization of the visit to Queshua tents at Decathlon, Boutique Undiz in Toulouse Capitol, Mercedes-Benz - USA
Better customer knowledge	The collection of customer information by digital tools will not only allow us to better understand them, but also to better manage them.	CRM and satisfaction surveys
Strengthen the multichannel strategy and eliminate the borders between the different distribution and communication channels (Promote the ubiquitous integration of consumers)	The digitization of points of sale is a materialisation of the brands' desire to strengthen their multichannel strategy in a concrete manner. It will allow the elimination of barriers or borders between distribution and communication channels, symbol of an omni-channel strategy (Vanheems, 2015). Consumers mostly use several different channels in the same buying process, depending on the type of product or category of purchase. Thus, the adoption of multichannel via digitalization is an adequate response to this ubiquitous behavioural change (Belvaux and Labbé-Pilon, 2009).	Findmore kiosk by JC Penney - USA, QR code wall at Delhaize