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THE INTEREST OF AN INNOVATIVE METHODOLOGY BASED ON CUSTOMIZED VIDEO SCENARIO TO STUDY THE MOBILE IN STORE EXPERIENCE AND THE PROGRAMATIC ADVERTISING

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Abstract :

This study focuses on the in-store experience in a smart retailing context, which is characterized by technological innovations. The in-store promotional and nutritional notifications are studied there, as well as their perception during a display and ultimately their effect on purchase intention, and on the feelings of brands intrusion via these notifications. In the field of Mobile In-Store Experience, more experiential data collection methods are called in the literature to deeply understand consumer behaviors. We choose a qualitative design with in-depth semi-directive interviews including projective technics thanks to innovative dynamic and adaptive video. Our personalized video material simulates an immersive in-store shopping sequence. This methodology can reproduce conditions very close to reality to catch customer behavior. It seems to offer a new way to study the experience with a simple and inexpensive material. Moreover, our results highlight the importance of the choice process for customer, the relevance of message, and the perceived brand technology congruence.

Keywords : in-store experience ; smart retailing ; qualitative methodology ; projective method ; innovativeness

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Introduction

The future of retail is already there as we can see in the just walk out Amazon's stores technology. Technological evolutions are changing the way of shopping experience and this calls for new analysis methods to catch the feeling of a customer which is interacting with many devices in digitalized stores.

Thus, many experimental projects have been developed worldwide in recent years to follow the pioneer Amazon Go in the United States. Driven by technological innovations, these new-generation stores abound with cameras, sensors and scales to know and record in real time the behavior of consumers and automatically feed their shopping cart. Large food stores see in the digitalization of points of sale a potential for innovation, especially to make the payment stage at the checkout more fluid, but do not seem to be exploiting the potential of this tool for communication or sales purposes in store. Personal solicitations, such as mobile programmatic advertising, could in fact become a sales support tool implemented by the retailer in order to offer customers a sales support (Beck and Crie, 2015).

Our research focuses on the impact of a technological innovation, namely the in-store promotional and nutritional notifications, their perception during a display and ultimately their effect on purchase intention, as well as on the feelings of brands intrusion via these notifications in the case of a connected store. In this study, we highlight the role of nutrition and promotion notifications.

To catch more accurately the feeling of the customer experience, we have chosen to conduct a qualitative study including an innovative method. Thus, we conducted in-depth semi-structured interviews with projective technics thanks to video material simulating an immersive in-store shopping sequence. This method allowed us to simulate the shopping journey by immersing the customer in his imagination, with a dynamic video material able to change the story as he goes. Our first results show that, in addition to many interesting results about digitalized shopping experience, this methodology can reproduce conditions very close to reality to catch customer behavior. It seems to offer a new way to study the experience with a simple and inexpensive material.

Literature

New forms of interaction with the customer in store

With the introduction of numerous interactive devices and new forms of digitalized contact points, the consumer-brand relationship has been enriched. "On-line" and "off-line" are all available resources that involve the consumer in the construction of his or her own iterative process with more or less stages (Anteblian, Filser, and Roederer, 2013). The possibility of building one's own "seamless" journey between different universes transforms the way customers experience services and interact throughout their experience (Flavian and al. 2019). These are therefore new forms of interpersonal interactions intermediated by technology (Sampson and Chase, 2020), which require a rethinking of all the contact points along the customer's purchase journey (Vanheems and Pache, 2018).

These digital devices that can be used in-store are grouped under the term New Sales and Purchasing Aids (Beck and Crie, 2015), with the smartphone embodying the main NAVA device. Their use in-store would positively influence the shopping experience and value (Lao

and Vlad, 2018) allowing the customer to have a more dynamic and autonomous role in forming their experience (Flavian and al., 2019).

The smartphone, a new shopping assistant

The uses of the smartphone and mobile applications in physical spaces are grouped under the term mobile-in-store: they provide a contextualized experience and information tailored to the user (Stroz and al., 2019). The smartphone is thus used in-store mainly to consult online promotions, find their way around the store, search for product information, write shopping lists, order out-of-stock products, and finally, pay on mobile to avoid waiting at the checkout (Lawry and Bhappu, 2021). With these new opportunities available to consumers, mobile-in-store has led to a constant evolution of consumer expectations, but also, has increased the ability of retailers to interact with them, even allowing for relevant promotional messages to be sent through iBeacons technology (Grewal and al., 2017).

Mobile-in-store techniques are thus seen as a source of opportunity for retailers (Beck and Crie, 2015) and value creation for consumers (Lao and Vlad, 2018). It is about making the in-store shopping experience simpler, richer and more fun ; however, different customer profiles can be mentioned in this context as enthusiastic, opportunistic, reluctant and pragmatic (Stroz and al., 2019). Indeed, research seems to show some ambivalence: in the context of ordinary shopping the mobile-in-store could enrich or on the contrary alter the shopping experience (Flacandji and Vlad, 2020; Del Bucchia and al. 2020).

Research Gap

This study aims to evaluate the interest of mobile programmatic advertising (MPA) of a retailer, on behalf of a distributed brand of food products (national or private label). The use of MPA is thus studied with regard to its use as a sales assistance tool. Thus, the solicitation of in-store

customers by the retailer via their smartphone highlights the advisory role of the retailer, which can provide contextualized and personalized information, but nevertheless raises the question of the acceptance of this approach for consumers, as to the possible perceived intrusion but also the situational effects of this use.

More precisely, the study focuses on the impact of in-store notifications on the perception of nutritional information during exposure and ultimately on the purchase intention as well as on the feelings of intrusion of brands via these notifications in the case of a connected store of a classic brand. In this study, we highlight the role of nutrition and promotion notifications.

The smartphone is used in stores mainly to consult online promotions, find the products in stores, search for more information, write shopping lists, order any further products, and finally, pay on a mobile phone to avoid waiting at the checkout (Lawry and Bhappu, 2021).

iBeacons are small devices placed in a store, in the aim to send Bluetooth Low Energy (BLE) signals to nearby smartphones. The signals then interact with a mobile application installed on the smartphone and can thus send geo-targeted commercial notifications.

Methodology

To carry out our study, we sought to reproduce an experience lived in a food supermarket during the purchase of everyday products. We therefore defined a scenario and filmed various video sequences in a supermarket which were edited with the help of a service provider. Several inlays were added to the image to simulate the use of smartphones in stores and the MPAs. The resulting video montage was then transferred to a specialized software program to manage the entire architecture of different conditions proposed by the video tracks.

This dynamic and adaptive video scenario constituted the support material for our semi-structured interviews as a projective method. These methods have the advantage of bypassing

the various psychological or social barriers that conventional interviewing techniques face and thus make it possible to avoid too much intellectualization or rationalization on the part of consumers by appealing to their imagination (Dion, 2008). The themes addressed were defined beforehand in an interview guide built on the basis of the theoretical elements observed in the literature review, followed by two test interviews to refine the categories and to verify the proper general conduct and sequencing of the interviews.

The participants in this study were recruited by panel with the following criteria: regular frequentation of large food stores, possession of a smartphone and age above 21 years. We also checked their visual acuity and their good color vision to be sure that they can watch correctly the immersive video. Our full sample consisted of 33 respondents including the first two respondents who tested our interview guide. We felt a semantic saturation during the last few interviews and continued them until this trend was confirmed. The interviews were conducted in a specialized room, without any stimulus and equipped with audiovisual material for watching the movie. Interviews were all conducted in the presence of the two researchers.

In total we have 21 women and 12 men. The average age of our sample is 35 years. Each interview lasted an average of 48 minutes, not including the intake phase and the collection of information in the form of a self-administered questionnaire, for a total duration of 26 hours and 20 minutes. All the interviews have been transcribed and are now analyzed with Nvivo software.

Results

Our first results highlight several effects: an effect of dissonance between the a priori rejection of solicitations and a search for opportunity when it is a promotional offer (vs. nutritional information), a feeling of lack of freedom of choice provided by the solicitations, a need for

contextualization and relevance of the notifications to perceive an interest in them and finally, an effect of technological congruence of the sign between the perceived technicality of the place and the use of such devices.

Gap between disagreement for messages and desire for interesting offers

Many interviewed were reluctant regarding the frequency and redundancy of the notifications. However, we observed on several occasions that respondents who first mentioned their intention to stop notifications changed their minds if the following notification was about a promotional message.

We have therefore identified within our sample a large number of “opportunists” referring to Stroz and al. (2019). This profile is characterized by the search for economic gains. This difference between intention and behavior in a concrete situation confirms our methodological choice based on experience rather than declarative.

We observed this confusion on several occasions during our study. It reveals an inner tension. In particular, some respondents who were initially opposed to (nutritional) notifications saw it as a “win-win relationship” due to the financial advantage and therefore accepted this type of notification perceived as “advertising”. According to Stroz and al. (2019), the opportunist profile represents only 33 percent of their sample whereas in our study it represents more than the majority of our respondents.

Lack of choice vs unrestraint choice

Our first results highlight the existence of a link for respondents between the use of digital devices and perceived freedom of choice. Indeed, from the first questions related to online food shopping, one of the reasons mainly mentioned by non-users was “the impossibility of choosing

oneself". It was confirmed during the immersive video : we have identified a large number of situations where the notification seems to constrain the consumer in his choice.

More than advice, the notification targeting a particular product or brand is felt as an injunction to buy. This challenges some previous research findings that highlighted the empowerment and sense of control provided by the use of in-store technology (Flavian and al. 2019 ; Tyrväinen and Karjaluoto, 2019). However, if the notifications seem to have a negative impact on the perception of freedom of choice for the respondents, neither the store nor the brand are considered by the respondents. Indeed, the consumer takes responsibility for having accepted the general conditions of use of the application when downloading it.

The role of the technological congruence of the store

After viewing the immersive video, respondents watched a short video of an Amazon Go store, which is autonomous and fully connected. The reactions and comparisons made by the respondents between this store format and the previous experience during the immersive video show that, whatever the degree of acceptance of this new store concept, Amazon Go store is perceived as being more congruent with a "digitized" experience rather than our traditional store that appears in the film.

Although the two stores have a different aesthetic style, it seems that it is more the congruence with the brand of the store that matters. Indeed, Amazon, as an e-commerce player, is perceived by respondents as consistent and legitimate to provide such an experience.

The type of message sent

The promotional notifications were very effective, while the nutritional notifications aroused little interest from the respondents. They mentioned, on the one hand, the lack of relevance of

the information compared to the information already available on the packaging, and on the other hand, the lack of personalization in relation to their specific information search needs.

Indeed, it seems that nutritional notifications bring a benefit only if they are extremely precise and targeted and go beyond the basic information of the packaging. Finally, if the notification is sent by the brand or by the store, it does not seem to have any effect on the perception of the relevance of the nutritional information.

Discussion

Methodological contribution

We have previously highlighted the call in the literature to use more experiential data collection methods to deeply understand consumer behaviors in a Mobile In-Store Experience.

From a methodological point of view, the device we have designed allows the respondent to project himself more into a given situation through an immersive and personalized video, the evolution of which he can choose. The use of projective methods of the completion type and the immersive video make it possible not only to base the interview on intentions through questions and answers but also to observe behavior in a situation as close to reality as possible and taking into account the contextual elements.

Our innovative technique is based on immersing the respondent in a video following a scenario. We use projective methods of completion: the respondent projects himself into the situation experienced by watching the film where he embodies the character walking in the store. Our method makes it possible to overcome the limits of declarative quantitative methodologies observed in the literature. Indeed, this immersive video makes it possible not only to base the interview on intentions through the questions and answers, but also to observe behavior in a situation as close as possible to reality and taking into account the elements of context.

Moreover, most of the respondents have appropriated the scenario and have felt the immersion in the video, as shown by the numerous verbatims in which they comment on the in-store experience in the first person.

"I'm really in the role, I am in a mindset (...) I go at the store because I was asked to" (Sub.19).

This highlights that our immersive method allows the projection of the subject in the experience, without the need for much more expensive and technically complex technologies such as virtual or augmented reality.

Theoretical and managerial contributions

Our first results highlight several effects: a gap between disagreement for messages and desire for interesting offers when it is a promotional offer (vs. nutritional information), an effect on perceived freedom of choice due to the several notifications, the role of the technological congruence of the store in the acceptance of a smart retailing and finally, the importance of a well-contextualized and personalized message to bring benefits. These results bring new elements to the literature on digitalized shopping experience because our methodology can reproduce conditions very close to reality to study the holistic experience. Moreover it can help retailers design their digital devices in stores and define the relationship they want to maintain with customers.

Limitations and future research

Our study presents some limitations due to the exploratory and innovative method and could be improved in a further research thanks to this first experience. Besides, the study was conducted after two years of covid pandemic which may have temporarily generated specific consumer behavior in food stores.

Nevertheless, our first results and our methodology encourage us to propose future research. We suggest a new research method to more precisely study the behavior of consumers who are immersed in a consumer experience. The results show that respondents felt they were living the proposed experience in the video. This offers the possibility of planning new research in the field of consumer behavior and particularly to study inaccessible or fictional environments. This could be interesting for example to study in future research an experience in the Metaverse or in the field of hospitality or tourism.

References

- Antébliau B., Filser M. and Roederer C. (2013) Consumption experience in retail environments: A literature review, *Recherche et Applications en Marketing* 28(3) 84-113
- Beck M. et Crié D. (2015), Les nouvelles aides à la vente et à l'achat : définition, état de l'art et proposition d'une taxinomie, *Décisions Marketing*, 79, 131-150.
- Bèzes C. (2019) What kind of in-store smart retailing for an omnichannel real-life experience ? *Recherche et Applications en Marketing* Vol. 34(1) 95-118
- Del Bucchia C., Miltgen C. L., Russell C. A., and Burlat C. (2020). Empowerment as latent vulnerability in techno-mediated consumption journeys. *Journal of Business Research*, pp.629-651
- Dion D. (2008) *A la recherche du consommateur. Nouvelles techniques pour mieux comprendre le client*. Dunod.
- Flacandji M. and Vlad M. (2020) The influence of cell phone uses on the shopping experience, *Décisions Marketing*, n°100, 79-96.

Flavian, C., Ibanez-Sanchez, S., and Orús, C. (2019). The impact of virtual, augmented and mixed reality technologies on the customer experience. *Journal of Business Research*, 100, 547–560.

Lao A. and Vlad M. (2018), Digital evolution of stores at the sales terminal: Impacts on mental imagery, shopping experience, and the value of shopping, *Décisions Marketing*, 91, 61-78.

Lapassouse-Madrid C. and Vlad M. (2016), Connected shopping: A case of value creation or value destruction for customers and retailers?, *Décisions Marketing* n°84, 43-59.

Lawry CA and Bhappu AD (2021) Measuring Consumer Engagement in Omnichannel Retailing: The Mobile In-Store Experience (MIX) Index. *Frontiers in Psychology*. 12:661503.

Sampson S. E. et Chase R. B. (2020) Customer contact in a digital world, *Journal of Service Management*

Stroz J., Benavent C. and de Pechpeyrou P. (2019), Interest in mobile-in-store techniques: Taking into account shopping orientations, *Décisions Marketing*, 93, 33-51

Vakulenko, Y., Shams, P., Hellström, D., et Hjort, K. (2019). Service innovation in e-commerce last mile delivery: Mapping the e-customer journey. *Journal of Business Research*, 101, 461–468.

Vanheems R., Paché G. (2018), Retail for the connected customer with the world at their fingertips: What happens next? *Décisions Marketing*, n°91, 5-21.