

The role of the experience of anticipating the use of automatic checkouts in shops on the behavioural orientation of customers: the example of large food stores

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Cite as:

SOKI BECHTEL (2023), The role of the experience of anticipating the use of automatic checkouts in shops on the behavioural orientation of customers: the example of large food stores. *Proceedings of the European Marketing Academy*, (117270)

Paper from the EMAC Regional Conference, Athens, Greece, September 27-29, 2023



## **The role of the experience of anticipating the use of automatic checkouts in shops on the behavioural orientation of customers: the example of large food stores**

**Abstract:** This paper aims to understand how the customers of large food stores live their experience of anticipating the use of the automatic checkouts at their disposal, in order to ultimately understand the impact of the latter on their behavioural orientation. Following Churchill's (1979) paradigm, after a thematic content analysis, we conceptualised an eight-dimensional measurement scale. After a pre-test on a sample of 135 respondents, we are conducting a second data collection for our confirmatory studies. The research is ongoing and our database has, to date, 323 completed responses.

**Keywords:** Anticipatory usage experience; Customer experience; Automatic checkouts

## 1. Introduction

The COVID\_19 health crisis has given physical retail its credentials as a genuine "place of identity construction" according to Vincent Chabault (2020) in "Éloge du magasin". At the heart of the social relationship, the shop plays a relational and emotional role that the internet can hardly replace. This leads customers to return to the shop. In 2022, in response to the difficulties encountered by physical shops in the face of e-commerce, Picot-Coupey proposed that the response to the questioning of physical shops would be a reinvention, to which digital point of sale is not to be outdone.

Digital, in response, appears to be an undeniable lever because it allows, in effect, to deliver an experience to customers; be it ordinary or extraordinary (Verhoef et al, 2009; Gentile et al, 2007; Pine and Gilmore, 1999). This introduces the objective of this paper, which aims to understand the extent to which the experience of anticipating the use of self-checkouts in supermarkets influences the behavioural orientation of the customer once in the shop.

This is the question we intend to answer in this research, by developing a research model that we will test. Therefore, this paper represents a mid-term paper.

## 2. Theoretical framework

### - From the automatic checkout

In the present research, the digital application tool chosen is the self-checkout, in its multiple facets and variants that customers find in food stores. They are there as payment aids and thus contribute to the experience of anticipation of use (Arnould et al, 2002; Roederer, 2008 and Tynan and McKechnie, 2009). Beck and Crié (2015) refer to them as New Aid to Selling and Buying (NAVA) and Feenstra and Glérant-Glikson (2017) as Self-Service Information Technologies (SSIT). They agree in attributing the following characteristics to these tools: degree of interactivity, collaborative, ubiquitous, dematerialised; of which interactivity is the essential and common characteristic of all. Moreover, in the taxonomy they make of them, they come out with two categories with sub-categories each: '(1) Hedonic function (rehumanise/collaborate, attract/attract and arouse envy); (2) Utilitarian function (inform/assure and facilitate payment)' (Rivet et al., 2018).

### - From the experience of anticipation of use

Our research starts from the founding article of (Holbrook and Hirschman, 1982), to borrow from Arnould et al., (2002), the concept of anticipatory experience. These authors studied the experience through the prism of time, subdividing it into four: anticipation, purchase, consumption and memory. This process is summarised by (Roederer, 2008) and (Tynan and McKechnie, 2009) in three stages (pre-experience, core experience and post-experience). Therefore, we define the experience of anticipation of use as "the set of plans, dreams, imaginations, fantasies in which the customer immerses himself when he thinks about his shopping experience through a digital tool; these thoughts elicit in him responses on several levels" (Soki, 2023).

This concept is of great importance to brands for three main reasons. The first is that Schatzel and Calantone (2006) argue that a pre-announcement by the brand that induces anticipation improves the success of new product launches (case of Apple). The second reason is related to the fact that Nowlis, Mandel and McCabe (2004) find that in many consumption situations,

anticipation of the use of a digital tool can increase enjoyment, compared to a situation of non-anticipation, and also contributes to the development of evaluation related to subsequent consumption (Chan and Mukhopadhyay, 2010). The third reason is related to the fact that through the experiential loop (Flacandji, 2015), the memory of the experience of a past use will become an experience of anticipation of future use.

### **3. Methodology and first results**

We have developed a methodological approach which is in line with Churchill's paradigm (1979). This led us, after a literature review, to conduct semi-structured interviews with 20 interviewees, following which we conceptualised a research model and a scale for measuring the experience of anticipating the use of self-checkouts in GSA. At semantic saturation (Miles and Huberman, 2003), the data were analysed by thematic content analysis (Paillé and Mucchielli, 2008) both manually and using NVivo12 software.

The second step consisted of administering a questionnaire to 135 diverse respondents, for a representative sample of the French population. This first collection (pre-test) was used to clean up the measurement models of the research model with exploratory factor analyses and Cronbach's alphas performed on SPSS.

The next stage of the research consists of collecting quantitative data once again, with the aim of carrying out confirmatory analyses and testing the developed research model, through a family of Partial Least Squares (PLS) structural equation models, under the SmartPLS4 software.

In terms of initial results, our analyses of the discourses revealed eight constituent dimensions of the experience of anticipating the use of automatic checkouts in GSA:

- The utilitarian dimension, which refers to the fact that the use of the digital tool is linked to a specific task that can be conceived as rational. Consumers use the tool to achieve a well-defined objective in advance;
- The hedonic dimension refers to the pleasure/displeasure polarity with regard to the tools that customers expect during the anticipation phase;
- Functional dimension related to the practicality, the perceived/assumed intuitiveness of the digital tool to be used in shop.
- Autonomy dimension which concerns the freedom of activity and the control that can be exercised over both the digital tool and the visit to the point of sale;
- The symbolic dimension, which is linked to the individual's social, political or anthropological convictions with regard to digital in the point of sale.
- Time dimension, linked to time saving, optimisation of decision-making time or control.
- Dimension relating to the tool concerns the intrinsic characteristics of the tool, which can facilitate its appeal;
- Dimension shopping refers to the point of sale in the sense of Filser (2002).

Exploratory factor analyses resulted in an eight-dimensional factor structure, the results of which are presented in Appendix 1.

In the confirmatory phase, we proceed to the data collection, of which we have 323 correctly filled in questionnaires so far, after processing the database. Therefore, we can draw a first

conclusion from a preliminary processing: The experience of anticipating the use of automatic checkouts at the point of sale determines the behavioural orientation of its future use. This link between the two variables may be direct or may be mediated by the overall experience of anticipation of the visit to the point of sale.

#### **4. Conclusion:**

Beyond the fact that this research will help large specialised stores to rethink the installation of automatic checkouts in their outlets through a real experiential strategy responding to customers' expectations in this area, this paper presents three essential contributions:

- Retailers to take into account the situations and reasons that lead customers to use self-checkouts;
- Better integrate self-checkouts into their experiential context proposition, Carù and Cova (2006, p.44);
- Prepare customers when they are at the point of sale to have a good experience via the automatic checkouts, in order to better activate the lever of what we call the "experiential loop" for future purchases or visits.

Finally, at this stage, there are a few limitations to our research. Firstly, the fact that it is still ongoing does not allow us to present all of its results in this paper. Also, the fact that the research deals with only one tool (self-checkouts), in one setting (GSA). We therefore have the perspective of comparing self-checkouts to other types of tools such as automatic checkouts, in different contexts such as specialised supermarkets for example.

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## Annex 1: result exploratory factor analysis

**Table:** Factor structure (AFE) experience of anticipating the use of self-checkouts in GSA (SPSS output)

ITEMS	RC1	RC2	RC3	RC4	RC5	RC6	RC7	RC8	COMMUNITIES	Cronbach's Alpha
Better control of the time I spend there	0.879								0.775	0.796
Save time	0.811								0.762	
Optimise my time to make a purchase decision	0.724								0.699	
Contributes to reduced social interaction between shop visitors	0.857								0.747	0.780
Contributes to reducing the warmth of the shop	0.856								0.805	
Contributes to the loss of employment of salespeople	0.704								0.705	
Is fun	0.862								0.780	0.731
Is fun (allows you to play)	0.837								0.762	
Is stimulating (encouraging, motivating...)	0.539								0.669	
Are easy to handle	0.904								0.868	0.866
Have a clear functioning	0.900								0.849	
Intuitive	0.748								0.649	
I think that the design of digital tools can be attractive	0.741								0.617	0.713
Pleasant	0.603								0.662	
Simplifies my visit to the shop (purchase or not)	0.768								0.678	
Is relevant to my visit to the shop	0.709								0.739	0.665
I like it when I don't have to use digital tools in shop	0.909								0.823	
I like to have the choice of using or not using digital tools at the point of sale	0.603								0.593	
Search for product information	0.734								0.735	0.496
Will avoid customer flow (queues)	0.718								0.705	
Ordering	0.528								0.536	
<b>Overall Cronbach's Alpha</b>										<b>0.731</b>
<b>Number of items</b>										<b>21</b>
<b>Total variance explained</b>										<b>72,18%</b>

## **Annex 2: Other results of the qualitative study**

### **First results**

The individual's projection of future consumption depends on the type and quality of the infrastructure put in place by the brand or retailer to make contact with him

The search for information is part of the anticipation process and enriches it

The anticipation experience can stand on its own without the other components of the experience process and in some cases is more enjoyable for the consumer than the consumption experience

The mental imagery that is developed during the anticipation process may or may not be detailed, depending on the involvement of the consumer in the process. This is also linked to the memory of a specific experience

The anticipation of the use of the digital tool is based on the type of product or the format of the point of sale to which the consumer will go. This resonates with what we have developed in the theoretical framework concerning the type of purchase (banal or considered)

During the period of anticipation, individuals call on comparison bases, which enables them to develop and refine their expectations

The anticipation of using the digital tool is conditioned by the fact that the individual is aware of its existence in the point of sale

## **Annex 3 outline of the interview guide**

(1) Understanding of the experience of anticipating the use of digital tools

(2) Motivations and opportunities

(3) Capacities and skills

(4) The consequences of the experience of anticipating the use of digital tools

(5) The place of the anticipatory experience of using digital tools in the anticipatory experience of the visit (shopping).