Perceived Shopping Value in the Era of New Information and Communication Technologies (NICT): an Exploratory Study

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Abstract

Based on a literature review and the results of an exploratory qualitative study, this research examines the dimensions of the perceived value of retail stores in the era of new information and communication technologies (NICT). The results validated the dimensions of Holbrook's typology (1999) and identified new consumer expectations in relation to the integration of NICT in retail stores. These expectations significantly enrich the sub-dimensions of this Holbrook typology and encourage managers who intend to improve their commercial performance to make the shopping experience more immersive and digitalized.

Keywords: Perceived Shopping Value, New Information and Communication Technologies, Exploratory Study.

1. Introduction

Being a central concept in marketing, the notion of perceived value has been conceptualized in various ways through academic research. Each has attempted to integrate the multiple dimensions that encompass all aspects related to the perception of value. These dimensions allow us to better understand the motivations that incite the consumer to adopt favorable behavior towards a product, a service, or a brand. In the literature, the dimensions of perceived value are defined through several typologies, among which we can cite, for example, the typology of Babin et al. (1994), the typology of Sheth et al. (1991), the typology of Holbrook (1994, 1999), the typology of Sweeney and Soutar (2001), etc. These typologies have been tested in several fields and sectors of applications, whether fully or partially (Gallarza and Gil-Saura, 2006; Seo and Lee, 2008; Gallarza et al., 2017; Evelina et al., 2020; Febriyanti & Irmawati, 2024; etc.). Nevertheless, despite the interest in the concept of perceived value in the literature and the multitude of studies focusing on it, exploring this concept qualitatively remains relevant to take into account the wealth resulting from market dynamics, technological progress and the evolution of consumer expectations and innovative marketing practices.

Today, technological innovations are redefining consumer expectations and profoundly changing the customer experience. That said, analyzing the impact of these innovations on the perception of shopping value is topical. A qualitative approach is appropriate to rediscover the motivations for frequenting stores and revisit the perceptions associated with the image of commercial brands.

According to recent research on consumption and retail (Verhoef et al., 2015; Grewal et al., 2021), customer experience has become a central element for brand differentiation, where technological aspects strongly influence consumer expectations and satisfaction. Moreover, in emerging markets such as Tunisia, large retailers offer a fertile ground for studying consumer motivations, perceptions and expectations.

Thus, this research aims to better understand customer behavior in stores by exploring the nature of their motivations, perceptions and expectations in the Tunisian context. It is therefore part of a perspective of understanding and exploration (Evrard et al., 2003). Bergadaà & Nyeck (1992) state that "as soon as the research is in an approach of discovery of a little-explored field, it is entirely legitimate to adopt an inductive approach."

2. Literature Review

The dimensions of perceived value have been presented in the context of several typologies. However, in the present research, Holbrook's (1999) typology has been adopted as the theoretical basis for this work for several reasons. First, Holbrook's typology highlights the contextual and subjective nature of value, which makes it particularly suited to studying phenomena where the consumer's individual perception and interaction with the experience play a key role. It also recognizes the interactional nature of value, by integrating not only the characteristics of the product or service, but also the way in which the individual experiences and interprets them. This approach is particularly useful in the context of studies that aim to understand the perceived value of experience (e.g., shopping), because it goes beyond simple functional satisfaction.

Holbrook's (1999) typology is structured around the idea that value is a multidimensional concept, which is based on utilitarian, hedonic, social and symbolic aspects. Holbrook identifies eight sub-dimensions, organized along three main axes: extrinsic vs. intrinsic, self-oriented vs. other-oriented, and active vs. reactive.

Figure 1: Typology of consumer value (Holbrook, 1999)

		Extrinsic	Intrinsic
Self-Oriented	Active	Efficiency (Output/Input, Convenience)	Play (Fun)
	Reactive	Excellence (Quality)	Aesthetics (Beauty)
Other-oriented	Active	Status (Success, Impression Management)	Ethics (Justice, Virtue, Morality)
	Reactive	Esteem (Reputation, Materialism, Possessions)	Spirituality (Faith, Ecstasy, Sacredness, Magic)

Extrinsic vs. Intrinsic Dimension

Extrinsic: Value is assessed based on the usefulness or functionality of the experience. It focuses on the practical benefits and tangible outcomes obtained after shopping.

Intrinsic: Value is derived from the experience itself, independent of future utility. It focuses on the pleasure and immediate satisfaction felt during the act of shopping.

Active vs. Reactive Dimension

Active: The consumer is proactively involved in the shopping experience, seeking to interact, influence,

or actively explore their environment.

Reactive: The consumer is rather passive and receives the shopping experience, without directly intervening. They evaluate their experience based on what they observe or feel.

Self-oriented vs. Other-oriented

Self-oriented: The shopping experience is valued for the benefits it provides to the consumer himself. It can be focused on personal pleasure, satisfaction, or the resolution of an individual need.

Other-oriented: The experience is perceived through the relationship with others. Value is created by the social impact or by the way the experience is shared or perceived by others (such as offering a gift, or buying a product for someone else).

Holbrook (1999) then breaks down these dimensions into several subcategories:

- **Efficiency (individual, extrinsic, active):**

Efficiency is related to the utility value of consumption. An efficient store allows customers to easily buy what they need while optimizing the benefit/cost ratio. For example, a large store that offers a smooth journey, fast checkouts, and clear promotions to maximize shopping efficiency.

- **Excellence (individual, extrinsic, reactive):**

Beyond mere utility, excellence adds gratification through the unique quality of the product or service offered. This value is often associated with an exceptional design, offering or service that distinguishes a store. For example, a luxury store like Hermès where each item is a work of art, with meticulous attention to detail and superior quality.

- **Status (social, extrinsic, active):**

Some consumers frequent stores to affirm or build their social status. They choose stores that reflect strong social symbols, corresponding to their ideal self-image. For example, buying in a boutique of renowned designers or in exclusive concept stores where the frequentation itself reflects a certain social status.

- **Esteem (social, extrinsic, reactive):**

Esteem refers to the social and cultural recognition of the symbols conveyed by the store. It is the way in which others perceive and value the consumer's choice. For example, frequenting an organic and ethical café in a popular neighborhood, where responsible consumption values are perceived as a sign of respected social status.

- **Play (Individual, Intrinsic, Active):**

Play refers to the playfulness that a store can offer. Customers value the shopping experience not only for the utility but also for the fun and entertainment it provides. For example, a store like Lego where children (and adults) can interact with the products, create and play while shopping.

- **Aesthetics (individual, intrinsic, reactive):**

Aesthetics concerns the experience of beauty in a store. The design and atmosphere of a store can evoke emotional admiration. For example, a store like Apple that emphasizes minimalist architecture, uncluttered spaces, and careful presentation of products, creating an attractive sensory and visual experience.

- **Ethics (social, intrinsic, active):**

Ethics reflects the search for moral value in consumption. Consumers choose stores that match their social or environmental principles, seeking to do good through their purchases. For example, a supermarket offering only fair trade or organic products, allowing consumers to support social or ecological causes.

- **Spirituality (social, intrinsic, reactive):**

Spirituality in consumption allows the consumer to access personal transformation. It is often associated

with transcendent, symbolic or ritual experiences during the purchase. For example: Participating in events or workshops at an independent bookstore, where customers can feel connected to a literary community, discovering works that nourish their spirit and personal development.

Thus, Holbrook's typology provides a rich framework for analyzing shopping value. It integrates not only utilitarian and functional aspects (efficiency and excellence), but also hedonic aspects (playfulness and aesthetics), social aspects (status and esteem), and ethical aspects (ethics and spirituality) of shopping experience.

3. Qualitative Study's Methodology

This exploratory study aims to assess the extent to which the typology of shopping value proposed by Holbrook (1999) can be applied to the retail sector in Tunisia in the era of new information and communication technologies. The objective is to identify the different dimensions of the value perceived by customers in this specific context and to address to retail outlet managers a set of recommendations in order to respond effectively to the evolution of customer expectations and needs and to achieve customer loyalty.

The exploration will not be limited to the perception of the dimensions of the store value following the services and benefits currently provided to customers but attempts to extend to the discovery of customer expectations and aspirations in relation to the ideal store service in the era of NTIC.

To meet the objectives of the study, a series of semi-directive interviews were conducted with customers of retail stores in Tunisia. The sample size was defined by the saturation principle. 30 consumers frequenting retail stores in Tunis were interviewed. These are 12 men and 18 women, aged between 20 and 60 years old. The average duration is 33 minutes (the shortest lasted 20 minutes and the longest 46 minutes). This is a convenience sample, ensuring the diversification of profiles. The sample has the following characteristics:

Table 1: Sample characteristics

Gender	Number	Age	Number
man	12	De 20 à 34 ans	4
		35 à 60 ans	8
women	18	De 20 à 34 ans	8
		35 à 60 ans	10
Total	30		

The interview guide used includes 2 themes as shown in the following table:

Table 2: The interview guide

Theme 1: Reasons for visiting a retail store
1. What are the main reasons that push you to visit a retail store rather than another?
2. What satisfies you the most during your visits to this retail store?
3. What do you think are the most restrictive or frustrating aspects of your shopping experience?
Theme 2: Expectations of an ideal store
1. How would you describe the ideal store for your needs and expectations?
2. What additional features or services would you like to find in a retail store?

3. In terms of the customer journey, what would make your shopping experience more enjoyable or efficient?

Interviewees spoke freely without interruptions from the interviewer (Bolderston, 2012). The interviewer was encouraged to keep his or her motivations, interests, and perspectives (Guba, 1981) hidden during the interviews and to use strategies such as paraphrasing (Aarsand and Aarsand, 2018) and probing for more information (Clarke, 1999) to encourage respondents to elaborate on their answers. The interviews were recorded, transcribed and then analyzed using the qualitative analysis software NVIVO 10. In this study, thematic analysis was favored and the approach was inductive. Interviewees' statements that mentioned the same idea were grouped into a single category, faithfully adhering to the interviewees' terms and making no effort to distill categories (Gioia et al., 2013). As the analysis progressed, similarities and differences between the categories obtained were sought in order to reduce them to a more manageable number (Gioia et al., 2013). Finally, labels were assigned to these categories, which placed us in the middle of a second-order analysis (Gioia et al., 2013).

4. Results

Theme 1: Consumer Motivations

The analysis of the collected speeches allowed us to validate the relevance of the typology of sources of value developed by Holbrook (1999). The components of value associated with the motivations for frequenting the store will be presented in what follows.

Utilitarian value

Analysis of the interviewees' comments enabled us to identify the first component of perceived value, namely utilitarian value. This value refers to utilitarian and functional characteristics of the store in terms of reliability of products and services, practicality and superiority of the offer. The utilitarian reasons why a consumer frequents a retail store are:

- Reasons relating to good value for money, accessibility of the store, product diversification, etc. (**Efficiency motivation**)
- Reasons relating to the superiority of the offer and differentiation from competitors. (**Excellence motivation**)

Table 3: Efficiency's verbatims

Interviewees	Examples of verbatims
Interviewee 7	"The price/quality ratio in this store is really satisfactory".
Interviewee 12	"I choose to frequent this store because it regularly offers attractive promotions".
Interviewee 1	"I go to this store regularly because it's close to where I live".
Interviewee 10	"I frequent this store to take advantage of the variety of choices it offers, I can find everything I need there".
Interviewee 14	"I frequent store X because parking is always easy there".
Interviewee 13	"I choose store X because its opening hours fit well with my schedule".
Interviewee 3	"I frequent this store because it allows me to make secure electronic payments".

Interviewee 5	"I often use this store's mobile application on site, so I can quickly find where the products I am looking for are".

Table 4: Excellence's verbatims

Interviewees	Examples of verbatims
Interviewee 4	"I usually shop at this store because of the excellent quality of its products".
Interviewee 2	"I particularly choose this store because its products and services are the most reliable".
Interviewee 14	"I go to this store because I always find innovative and original products there".
Interviewee 17	"To avoid wasting time, I go directly to this store when I am looking for a trendy item".
Interviewee 6	"When you need advice, this is the place to go".
Interviewee 12	"I am reassured by the efficiency of their customer service, especially when it comes to technological products, because they offer excellent technical support".

Hedonic value

According to the interviewees, visiting the store is associated with moments of pleasure and discovery. It is an opportunity to stroll, discover new trends, appreciate the decoration of the spaces or the atmosphere created during events (sales period, the Eid festival, the month of Ramadan, the store's anniversary, etc.). Visiting the store is an escape from the daily routine.

The two components of the hedonic value of Holbrook's typology (aesthetic value and play value) have been found here.

Table 5: Play value's verbatims

Interviewees	Examples of verbatims
Interviewee 22	"I love shopping in these stores and wandering freely between the aisles".
Interviewee 14	"It is a pleasure for me to buy my products in this store while enjoying a fun and comfortable setting".
Interviewee 19	"I like discovering new products and having fun trying them".
Interviewee 1	"Shopping in this store is like an adventure! I love exploring the aisles and finding new surprises".

Table 6: Aesthetic value's verbatims

Interviewees	Examples of verbatims
Interviewee 20	"I find that store X is aesthetically modern: the design, decoration, layout of the departments and presentation of the products are very contemporary and very successful".

Inter-viewee 16	"This store is a place of entertainment and well-being for me, both beautiful and spacious".
Inter-viewee 11	"The atmosphere of store XX is very pleasant".
Inter-viewee 23	"The way store X presents its products is attractive".
Inter-viewee 29	"Store XX is very well decorated".
Inter-viewee 26	"The store is designed to be contemplated. Its architecture, its decorations, provide a feeling of supreme beauty".

Social value in respondents' discourse

Social value was expressed in two ways in respondents' discourse. First, consumers revealed that the act of consumption is a way to reflect a certain social status and to distinguish oneself from others. This corresponds to the sub-dimension "Status" of Holbrook's typology (1999).

Table 7 : Social status's verbatims

Interviewees	Examples of verbatims
Interviewee 20	"Frequenting this store allows me to affirm my style and show how much I appreciate exclusivity".
Interviewee 22	"When I shop in this store, I know that I am reinforcing my social image and that I am distinguishing myself from others".
Interviewee 28	"Every time I set foot in this high-end store, I feel valued, as if I belong to a privileged circle".

However, for the majority of respondents, shopping activity is seen as a support for establishing interpersonal relationships (Filser et al., 2003) whether with other customers or with salespeople.

The analysis of the discourses highlighted the role of the store as a mediator of social relationships. Three levels of social interaction can be identified: exchanges with salespeople, interactions with accompanying persons as well as with other customers of the store.

Table 8 : Interactions with Sellers

Interviewees	Examples of verbatims
Interviewee 17	"In this store I know all the staff, I tend to chat with them".
Interviewee 25	"I appreciate the warm welcome from the staff of this store and the discussions I have with them about the products".
Interviewee 27	"I appreciate the fact that the saleswomen of this store recognize me and want to chat with me".
Interviewee 29	"The cashiers of this store are very communicative, they make sure to greet us at the entrance and exit".

Table 9 : Interaction with consumers

Interviewees	Examples of verbatims
Interviewee 21	"It's an opportunity to see people, to meet friends or neighbors".
Interviewee 23	"I look at what people buy, how they dress and it allows me to get inspiration; I sometimes ask them for their opinion on certain products".
Interviewee 5	"Every time I visit the store, I meet by chance one of my acquaintances".
Interviewee 18	"I sometimes meet people in this store that I have lost sight of".
Interviewee 19	"I could make friends by interacting with people in this kind of store".
Interviewee 9	"I tend to accompany my husband to go shopping in these stores, I take the opportunity to share a moment of pleasure with him after a long day of work for both of us".
Interviewee 4	"I love accompanying my sisters to these stores, it comforts me if I get their opinions before buying products".
Interviewee 30	"When I go to these stores to do shopping, I take the opportunity to eat with my family in a restaurant, or to have a coffee with my husband. We make the most of the outing".
Interviewee 6	"I look at showcases with my daughter, she inspires me all the time to make the right choice".

Ethical value

Ethical value, according to Holbrook's typology, refers in particular to the commitment of stores to social or environmental causes, which can influence consumers' motivations for frequenting them. Some consumers tend to favor frequenting stores with social responsibility initiatives and/or that sell sustainable products. In this research, only the search for healthy and environmentally friendly products was the reason for choosing the stores they frequented.

Tableau 10: Ethical value's verbatims

Interviewees	Examples of verbatims
Interviewee 5	"I prefer to shop here because this store offers a wide range of organic products, which are not only good for my health, but also for the planet".
Interviewee 15	"I choose this store because it is committed to selling healthy and environmentally friendly products, which allows me to consume more responsibly".
Interviewee 17	"I like the fact that this store highlights organic and natural products, I feel reassured knowing that I am feeding my family with healthy food".
Interviewee 29	"The fact that this store offers products with natural and non-harmful components really influences my decision to go there, I want to have peace of mind".

Theme 2: Consumer expectations

To gain a holistic understanding of how consumers perceive the value of a store, consumers ' expectations about an ideal store were also explored to shed light on the characteristics that consumers associate with a perfect store. This approach not only addresses their explicit needs but also anticipates their latent

desires. In this way, managers can find ways to improve the shopping experience they currently offer their customers by sticking closely to their expectations and wishes. The analysis of the interviewees' speeches drew particular attention to the tendency of these consumers to demand services not yet offered in stores and services not yet popularized in all the stores they frequent in Tunisia. Today, consumers are very well informed. They follow the news and want to take full advantage of technological progress to make their lives more and more convenient and to enjoy an exciting and pleasant shopping experience.

The analysis of these expectations did not reveal new dimensions that could characterize the perception of shopping value but contributed to enriching the subcategories by revealing marketing practices that could truly interest store visitors and that can now enrich their perception of shopping value.

In relation to Holbrook's (1999) value dimensions, the following consumer expectations were identified:

Contactless payment methods (utilitarian value)

Consumers want all stores to offer the possibility of paying via contactless payment methods (NFC, Apple Pay, Google Pay) or digital wallets. These services speed up the payment process, thus improving efficiency and convenience of shopping experience. Consumers also mentioned the usefulness of integrating self-checkouts into stores to facilitate and speed up checkout, reduce queues and allow greater autonomy for customers. These expectations are attributable to the search for utilitarian value offered by new information and communication technologies.

Tableau 11 : Expectations of payment methods

Interviewees	Examples of verbatims
Interviewee1	"I would like to be able to pay with my phone everywhere, it's fast and I don't need to take out my credit card anymore".
Interviewee 16	"Sometimes we make purchases in a hurry, a cash register without a queue, an automatic checkout, an ATM, will make our shopping easier".
Interviewee 25	"It would be very interesting if we integrated automatic checkouts, I could scan my items and pay quickly without having to wait for a cashier to be available".
Interviewee 12	"Automatic checkouts would be very practical, especially when I do small shopping, I don't want to queue just for two or three items".
Interviewee 2	"Automatic checkouts should be available and widespread in all stores, this considerably reduces the time spent in store, especially during peak hours".
Interviewee 27	"With queue-free payment, I can scan my items while I'm shopping and pay directly on my phone when I leave. No more queueing!".
Interviewee 23	"Combining automatic checkouts with "scan & go" is really ideal. If I haven't had time to scan everything during my shopping, I can quickly finish at the self-checkout".

Massive integration of mobile applications (utilitarian value)

In their speech, consumers have already mentioned some uses of mobile applications that make their shopping journey more convenient. However, to express their expectations regarding the ideal shopping experience, these consumers insisted on other advantageous uses of these applications that are not yet

very widespread or accessible. Indeed, according to consumers, it would be wise to use these applications more, in particular to obtain opinions from other consumers on the products that interest them, obtain personalized recommendations as they walk around the store, access real-time promotions and loyalty programs, which could make the shopping experience smoother and more interactive.

Tableau 12 : Expectations of Mobile Applications

Inter-viewees	Examples of verbatims
Inter-viewee 28	"The app would allow me to create my shopping list and send me reminders when I'm near the store. No more forgetting, it's perfect for me! "
Inter-viewee 22	"Thanks to mobile applications, we could receive notifications as soon as there are new products or special events".
Inter-viewee 24	"It would be very interesting if an application allows me to scan a product to get the opin-ions of other customers before buying".
Inter-viewee 11	"No need to drag a loyalty card around, everything would be in my application".
Inter-viewee 2	"It would be very interesting if we could receive personalized recommendations or notifi-cations about good deals while we surf between the aisles".
Inter-viewee 30	"Combining self-checkouts with "scan & go" is really ideal. If I haven't had time to scan everything during my shopping, I can finish quickly at the self-checkout".

Immersive shopping experiences with augmented reality and/or virtual reality (utilitarian and hedonic value)

Consumers are increasingly attracted to immersive experiences thanks to augmented reality (AR) or virtual reality (VR), which allow them to visualize or try products before purchasing them. The consumers interviewed in this qualitative study expressed the desire to be able to make their shopping experience in stores more practical but also more immersive thanks to new technologies that can be implemented in stores. Their expectations can be linked to both utilitarian and hedonic motivations.

Table 13 : Expectations of using AR/VR (utilitarian value)

Interviewees	Examples of verbatims
Interviewee 3	"Trying on clothes in VR is so much faster! I could see what looks best on me without having to queue in the changing room".
Interviewee 7	"Being able to try on makeup in VR before buying it is amazing. I could choose the shade that suits me best without making a mess!"
Interviewee 13	"Using my smartphone to see an AR demo of the product could make a difference for me, it could help me understand how it works before buying it".
Interviewee 15	"By pointing my phone at the product, I could access usage tips and ex-planatory videos. It's like having a personal assistant at our disposal!"
Interviewee 20	"Using augmented reality, I was able to superimpose the features of two different products. It really made my purchasing decision easier".

Table 14 : Expectations of using AR/VR (Hedonic value)

Interviewees	Examples of verbatims
Interviewee 6	"Virtual reality could turn my shopping into a fun and captivating experience"
Interviewee 8	"Trying on furniture in virtual reality allows me to imagine myself at home, which makes shopping so much more exciting and enjoyable".
Interviewee 9	"Shopping with virtual reality is like entering a new world where every product becomes an exciting discovery!"

Ethics and transparency of information provided on products (ethical and utilitarian value)

Apart from utilitarian, hedonic and interactional benefits, consumers are also attracted by the contribution of new technologies to meet their quest for well-being and responsible behavior. These consumers have shown that they want to know more about the products they buy, their ingredients, their origin, the conditions in which they are produced, supplied and transported. In this regard, they mention their appreciation for brands and stores that use blockchain and QR codes to communicate about products in complete transparency, as well as those that sell local or organic products.

Table 15 : Expectations related to information's transparency

Interviewees	Examples of verbatims
Interviewee 3	"I love the idea of being able to scan a product and see where the ingredients come from. It reassures me about the quality of what I'm buying".
Interviewee 16	"Scanning a QR code to see the production conditions allows me to make more informed choices. I like knowing that I'm consuming quality products".
Interviewee 15	"It's great to have detailed information at my fingertips by simply scanning a code. It makes my shopping more interesting and informative!"
Interviewee 12	"If I could trace the history of each product on the shelves, I would feel much more confident about the safety of the food I consume".
Interviewee 25	"I would like to know more details about the manufacturing and provenance of the products. I prefer to support committed and sustainable producers".
Interviewee 26	"I would like to be able to one day find out on site about the provenance of a product, I want to know if it comes from a local farmer. This encourages me to buy more regional products".
Interviewee 21	"I would be happy to know that this brand uses blockchain to guarantee transparency. This proves their commitment to responsible consumption".

Based on these results, this study has enriched the knowledge around consumers' perception of shopping value's dimensions by first confirming the main sub-headings of Holbrook's typology (1999) and by highlighting the importance given by these consumers to practices related to NTIC. Consumers are now more attentive to the use of these technologies in the shopping context. They want to enjoy a more immersive, more user-friendly and more modern shopping experience.

5. Theoretical Implications

The study confirms the multidimensionality of perceived shopping value as well as the relevance of Holbrook's (1999) typology in the shopping context. This validation provides additional support for the use of this theoretical framework in future research on consumer value perception and attests that the dimensions proposed by Holbrook remain current even in the modern technological context. This testifies to the ability of Holbrook's typology to adapt to technological developments in retail.

NICT act as catalysts that promote the development of innovative marketing practices, revive the shopping experience and enrich the perception of its value. Indeed, a mobile payment makes the purchasing process faster and smoother. Thus, the utilitarian dimension of value is enriched. For its part, augmented or virtual reality (AR/VR) adds a touch of pleasure and aesthetics to the presentation of products, which accentuates the hedonic dimension.

Furthermore, the interest shown by the interviewees in ICTs suggests that these technologies are likely to have a positive effect on consumers' attitudes and purchasing behaviors. This result is consistent with previous work. Indeed, according to Acosta-Prado & Tafur-Mendoza (2023), NICT positively influence customer satisfaction and contribute to increasing their number.

Thus, this enriched perception deserves to be considered further in the context of future research to recognize its impact on the store's commercial performance and on loyalty practices. To do this, enriched measurement scales could be developed based on this perception of value in a digitalized shopping context.

6. Managerial Implications

Consumer expectations have mainly been around the integration of new information and communication technologies in the shopping experience. Increasingly connected consumers are aware of the importance of these technologies in developing a satisfying shopping experience. That being said, retail brands are called upon to invest in NTIC to enrich the utilitarian, hedonic, social and ethical value of the customer experience. Technologies such as augmented reality (AR), virtual reality (VR) and mobile applications make the shopping experience more fluid, practical and enjoyable.

Utilitarian value is enhanced when NICT can facilitate the purchasing journey, reduce queues, and enable faster and more secure transactions. Self-checkouts, contactless payment, and blockchain product tracking systems are concrete examples. Companies must invest in these technologies to improve process efficiency and provide a smoother customer experience.

NICT contribute to improving the hedonic value of shopping, in particular by enabling the personalization of services and recommendations based on consumer preferences. In particular, stores must integrate digital interfaces that allow consumers to interact in real time and instantly exchange their opinions and recommendations. This will not only increase customer satisfaction, but also strengthen the interactive and enjoyable aspect of the shopping experience. In addition, physical store managers must invest in creating immersive environments, particularly by using virtual reality and augmented reality simulators. For example, using an augmented reality device to visualize a product before purchasing it combines practical utility and aesthetic pleasure.

Mobile applications and digital technologies can also strengthen the perception of social value in stores. Retailers must encourage social interaction, whether through shared recommendations between customers or real-time product reviews. This can help enrich the shopping experience by creating collaborative and connected environments.

Furthermore, managers can use NTIC to boost the perceived social value of their stores, in particular by integrating gamification elements that encourage social interaction. They can rely on applications that allow customers to earn points or rewards by sharing their experiences or inviting their friends to participate in challenges related to in-store purchases. They can also encourage their customers to refer their friends through these mobile applications in order to earn social and material rewards. These systems strengthen the social bond between users and their feeling of belonging to a brand community. Additionally, consistent with Holbrook's status and esteem dimensions, stores can use loyalty programs of different levels (e.g., Silver, Gold, or VIP) that allow customers to receive special treatment in-store. Belonging to a higher level is perceived as a sign of social status, and consumers are encouraged to display their rank or loyalty badges on social media to reinforce their image as a privileged consumer.

Finally, it is clear that the use of technologies such as blockchain can strengthen the perception of the ethical value of shopping. Indeed, by offering transparent information on the origin of products and the stages through which they have passed throughout the supply chain, stores allow consumers to make more informed choices that are also in harmony with their ethical values. Consumers will thus have more trust in the store and the brands it sells.

7. Limitations and Suggestions for Future Works

Despite its important contributions, this research admits some limitations. Indeed, being essentially qualitative and exploratory, this research limits the generalization of the results to a large sample of consumers. The conclusions drawn are therefore specific to the context studied and cannot be applied to other environments without a broader empirical validation.

The number of participants or situations observed is also limited, as is the case with exploratory qualitative research. This can lead to a bias in the diversity of opinions expressed regarding the use of NICT in retail. A larger and more diverse sample would allow us to better understand the nuances in the perception of value.

Furthermore, although technologies such as blockchain, augmented reality or self-checkouts have been mentioned, this research does not cover all the NICT available in retail, thus limiting an overview of current and future technological practices.

Finally, consumer perceptions of technologies in physical stores may vary depending on cultures and regions of the world. This research, limited to a particular geographical context, may not reflect the expectations of consumers in other regions.

And yet, this research is likely to inspire researchers to conduct future research to fill these gaps. Indeed, it would be relevant to supplement this exploratory research with quantitative studies in order to validate the results on a larger scale. This would allow testing the robustness of the conclusions and identifying more generalizable trends in the perception of the shopping value linked to NICT.

Another avenue of future research could be to conduct comparative studies across cultures to understand how the perception of the value of technologies in physical stores varies across cultural and socio-economic contexts. Longitudinal studies could also examine how consumers' expectations of NICT in physical stores evolve and whether the perception of value changes over time as these technologies become more common and widely integrated into the shopping experience.

In the future, it would be interesting to explore the impact of emerging technologies such as artificial intelligence, robotics or the Internet of Things (IoT) on the perception of value in stores. These technologies could redefine the current dimensions of Holbrook's typology, in particular by enriching the

playful, social and ethical utilitarian value.

8. Conclusion

This exploratory research highlights the evolution of consumer perceptions of the dimensions of shopping value in the era of NICT, confirming and enriching Holbrook's (1999) typology. Consumer expectations around the integration of NICT in physical retail environments have made it possible to redefine and enrich the sub-dimensions of perceived value, without introducing new dimensions. NICT reinforce and extend the meanings of already existing utilitarian, hedonic, social and ethical values.

Today's consumers expect a more immersive, convenient and connected shopping experience, where the benefits of technology—such as efficiency, aesthetics, transparency, pleasure and socialization—play a central role in creating perceived value that is both functional and emotional. Now, the transparency enabled by innovations such as blockchain, virtual try-ons enabled by augmented reality and the gamification of in-store interactions enrich the utilitarian and hedonic dimensions while reinforcing the social and ethical aspects of shopping.

Thus, far from introducing a new typology, NTIC are part of existing dynamics, making them more complex and nuanced. For physical store managers, these results highlight the importance of adopting innovative technological strategies to meet the expectations of modern consumers in terms of shopping experience, while ensuring a balance between the technological dimension and the satisfaction of consumers' social and emotional needs.

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