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Towards a first conceptualization of shoppers' ambivalence to digitalization

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Introduction

Digitalization of retailing describes the process of integration of digital technologies during shopping. It is an ongoing process, with no clear beginning or end, which is not merely imposed on people and organizations. Digitalization is about what people and organizations “do” and produce themselves through human activities, practices, interactions and configurations (Hagberg, Sundstrom, and Egels-Zandén, 2016; Reddy and Reinartz, 2017). Verhoef, Kannan, and Inman (2015) emphasize that digitalization both influence and is influenced by the retail landscape. Retailers provide shoppers with various services, that are simultaneously adapted to the use of technologies (e.g. stores open cashier-free at Amazon Go via the application of the same name) and affected by the new forms of shopping associated with these technologies (e.g. restaurants and concept store that appoint a dedicated space for souvenir photos to be shared on Instagram). The deep changes due to digitalization in the retail landscape were the focus of numerous research (Grewal, Roggeveen, and Nordfält, 2017; Reinartz, Wiegand, and Imschloss, 2019).

A first large stream of research concerns the digitalization in retailing. While sometimes pointing out the difficulties inherent to its implementation, or recently emphasizing "the dichotomous nature of technology" with "both benefits and harms for consumers" (Markos, Labrecque, and Milne, 2018, p 59), the vast majority of research in retailing focuses on the benefits of digitalization. They rarely discuss the contradictory reactions digitalization is likely to generate for shoppers (Johnson, Bardhi and Dunn, 2008; Dholakia 2019).

Moreover, another stream of research focuses on shoppers' ambivalence to technology. Following Thompson, Zanna and Griffin (1995), Otnes, Lowrey and Shrum (1997) introduce the idea that consumers can be ambivalent, i.e., they can simultaneously feel and show positive and negative reactions to a person, product or phenomenon (Ardelet et al. 2017; Rothman et al. 2017). As Sincoff (1990) points out, it is interesting to note that ambivalence is not synonymous with a single conflict between two opposing reactions, but rather a set of conflicts. Individuals feel and experience contradictory reactions regarding different components of the same attitudinal object (Ruth, Brunel and Otnes, 2002). These contradictions have been studied in different contexts, particularly with respect to consumers' relationships to technologies (Mick and Fournier, 1998). When confronted with technologies, shoppers switch between reactions described as positive (e.g., feelings of control, freedom and usefulness) and reactions described as negative (e.g., feelings of chaos, enslavement and uselessness). Taken individually, each reaction is incontestably true, but when juxtaposed against each other, they appear inherently contradictory (Johnson, Bardhi, and Dunn, 2008).

This stream of research focuses on shoppers' ambivalence to technology. For instance, Schweitzer and Van den Hende (2016) and Schweitzer et al. (2019) demonstrate that individuals associate technology with negative reactions as disempowerment and enslavement. But they do not investigate the ambivalent reactions to the digitalization of retailing.

It is therefore at the crossroads of these sections of the literature that this research takes place.

Purpose

To address this main gap in the literature, we conceptualize the ambivalence of shoppers to the digitalization of retailing. We point out the theoretical and managerial interest of this concept in retailing. Thus, the objective is twofold: 1) to reveal the components of retail

digitalization associated with of shoppers' ambivalent reactions to retail digitalization and 2) to identify research priorities on shoppers' ambivalence to digitalization of retailing.

Therefore, according to the objectives of the research, a systematic literature review was conducted on the shoppers' contradictory positive and negative reactions to digitalization of retailing.

Research methodology

A systematic literature review on digitalization of retailing has been conducted. "In contrast to an expert review using ad hoc literature selection" (Kitchenham et al., 2009, p 8), a systematic literature review is a methodologically rigorous review of research results relating to a specific question (Denyer and Neely 2004). With its transparent approach, the systematic literature review enables to locate, analyze, report the evidence and reach reasonably clear and objective conclusions about what is and is not (Denyer and Tranfield, 2009). Taking that into account, we describe below 1) the selection process of papers and 2) the analysis process of papers selected.

Selection process:

A keyword search has been undertaken to identify relevant literature on the topic (Tranfield, Denyer, and Smart, 2003). The following terms were used: "digitalization", "digitization", "digital transformation", "digital marketing", "digital technology", "new technology", "technology infusion", "technology infused", "omni-channel", "cross-channel" and "multi-channel". To conduct the search, four inclusion-exclusion criteria were applied for including work in this study (Tranfield, Denyer, and Smart, 2003):

- Papers must have been published between January 2005 and May 2020 (inclusive). It is within this period that most papers have been published on the digital changes in retail landscape (Verhoef, Kannan, and Inman, 2015).
- Papers must have been published in the twenty Marketing journals ranked at least 3* by the Academic Journal Guide (2018) to focus on work that meet a high-quality threshold. Our selection also included papers published in the French journal "Recherche et Applications en Marketing".
- Papers meeting these two search criteria were kept (or excluded) depending on whether they outlined (or not) shoppers experiences or reactions to digitalization of retailing (Raddats et al., 2019).

The Appendix A provides the list of the reviews analyzed, their rank, number of papers selected in each journal, references of selected articles and their citations number (Google Scholar).

Analysis process:

To capture the increasing importance of digitalization in the shopping process, a detailed analysis of the 108 selected papers was conducted to systematically collect shoppers' negative and positive reactions outlined by the authors. Then, these reactions were gathered around key components (e.g. Utility, Personal data, Power, etc.) to highlight shoppers' contradictory reactions. Our conceptualization was built through an iterative coding process, involving discussions among the research team about the identification and conceptualization of the shoppers' ambivalence to digitalization. The aim was to allow the interpretation of the literature to be adapted and refined through the course of the study (Tranfield, Denyer, and Smart, 2003).

Eight components of the shoppers' ambivalent reactions to digitalization.

By adopting this rigorous approach, this research conceptualizes the shoppers' ambivalent reactions to digitalization of retailing. Table 1 presents our conceptualization with the eight components of shoppers' ambivalent reactions to digitalization: "Useful-Useless", "Fulfills-Creates needs", "Engagement-Disengagement", "Personalization-Privacy", "Control-Chaos", "Interaction-Isolation", "Freedom-Enslavement", "Expert-Ignorant". While these components are characterized as distinct, there are overlaps. For example, the shoppers' contradictory reactions about power (Freedom-Enslavement) are partially dependent on the accumulation of knowledge, acquired by the integration of digital technologies in their shopping experience, and the feeling of being expert or ignorant. However, each of the eight components makes separate contributions to the knowledge on shoppers' ambivalence to digitalization of retailing.

Table 1. Conceptualization of the shoppers' ambivalence reactions to digitalization: eight components

Component of digitalization	Description	Valence
Utility	Digitalization enables shoppers to compare and shop products and services when they want, where they want, with less physical and cognitive efforts. But at the same time, shoppers can feel that they spend more money, time and effort on shopping and perceive digital technologies as useless gadgets and complicating simple tasks.	Useful vs Useless
Need	Shoppers experience contradictory reactions to fulfillment of needs when digital technologies provide a solution to a need and make life easier for them. At the same time, digital technologies make shoppers aware of previously unrealized and undiscovered needs and desires.	Fulfills vs Creates needs
Consumer-firm link	By enabling shoppers to easily interact with firms, digitalization can increase involvement, flow, and shoppers' commitment to a retailer or a brand. Paradoxically, shoppers can also reduce their loyalty to one firm because they can easily flit between several stores, retailers or brands.	Engagement vs Disengagement
Personal data	Digital technologies facilitate the collection of personal information and enable the personalization of marketing efforts that are tailored to an individual's preference. Simultaneously, the collection of their personal information is perceived as a potential threat to privacy.	Personalization vs Privacy
Information	Digitalization may facilitate the control of information, allowing shoppers to easily access and compare information from various sources. At the same time, shoppers may perceive an informational chaos when they are confronted to unbroken and automated flow of information and offers sometimes contradictory.	Control vs Chaos
Social link	Digitalization may simultaneously facilitate human togetherness and human separation: shoppers have the possibility to interact with others consumers or sellers both in a virtual sphere and a physical space, but at the same time, they can be devoid of real relationship or voluntarily look for an isolation.	Interaction vs Isolation

Power	Digitalization brings spatial and temporal freedom as well as freedom of choice concerning when to buy, where to buy, from whom to buy. At the same time, technologies' use also give rise to more restrictions and may lead to feelings of enslavement to technology as soon as shoppers perceive that they cede their decision-making power to technology.	Freedom vs Enslavement
Skill	With the integration of digital technologies in their shopping experience, shoppers access to multiple information on a product/service. The acquisition of this new knowledge gives them the feeling of being expert. At the same time, by relying on digital technologies, shoppers dispense with thinking and making certain decisions and become assisted by technology.	Expert vs Ignorant

Original/value

This research brings three theoretical contributions. First, it proposes a critical account of the literature on digitalization of retailing. On the basis of a systematic literature review and a detailed analysis of 108 major papers on digitalization, this research challenges the rose-tinted view on this phenomenon, revealing that the shoppers' valence to digitalization is not always positive. Second, this research provides a first conceptualization of the shoppers' ambivalence to digitalization in retailing. It offers a fine-grained view of ambivalence by outlining the eight components it encompasses in a digitalized retail context. Third, this research identifies research priorities on shoppers' ambivalence to digitalization of retailing (Appendix B).

Practical implications

If the digitalization of retailing is only seen as a positive phenomenon, then it might explain why some firms fail to achieve successful integration of digital technologies in the shopping experience. Thus, identifying the components of shoppers' ambivalence to digitalization has relevant implications for managers. For example, one key success factor of technological devices usage is to optimize its perceived added value. This can go through the rise in shoppers' knowledge by providing them aid decision tools which enable a better accessibility to information and ease comparison of products and offers. As far as personal data is concerned, the perceived risk of privacy invasion requires transparent communication on how personal data is collected, used and which third parties may have access to this information. Equally, it might also be appropriate to leave more control to shoppers over the information authorized for collection and use, like what Californian managers do, and before them, European managers under the direction of the legislative framework of the General Data Protection Regulation (GDPR). As a result, this conceptualization guides managers to make sense of the heterogeneous reactions of shoppers towards the technologies they offer.

Research limitations and outlook

Despite its contributions, this study has two main limitations that represent potential research avenues.

Whereas the literature about the digitalization has largely been focused on one specific aspect of digitalization (Ecommerce, or the use of mobile to shop, or the utilization of digital technologies in stores, or Retail Network Services...), we have chosen an extended definition of digitalization as a basic unit to read the phenomenon. This paper responds, thus, to the call by Hagberg,

Sundstrom, and Egels-Zandén, 2016) to move beyond considering narrow aspects of digitalization to a more complete understanding of all-encompassing transformations. However, our definition choice induces that shoppers' contradictory reactions about one of these specific aspects of digitalization can be contingent of each technology. This opens several research avenues as mentioned in appendix B.

Another limitation is that digitalization is here discussed specifically within the context of individuals' reactions, and focuses especially on the shoppers. We conceptualize the potential and interpersonal ambivalence of shoppers to digitalization. Consequently, future work could use our conceptualization to investigate which components are prone to 1) felt and intrapersonal ambivalent reactions, 2) potential and interpersonal ambivalent reactions, or 3) only polarized reactions.

Besides, this conceptual research represents the first step of a larger research project that entails empirical data collection. Consumer ambivalence research hold that negative experiences generate anxiety and stress that elicit avoidance responses from individuals (Mick and Fournier, 1998). In the same time, positive shoppers' experiences increase the trust in technology and the likelihood that the technology can be relied on in the future (Johnson et al., 2008). But, what about ambivalent experiences? Consequently, it may be relevant to study the psychological and behavioral consequences of shoppers' ambivalence to digitalization of retailing (Giebelhausen et al., 2014).

Keywords

Digitalization, Retailing, Shoppers, Ambivalence, Systematic Literature Review

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Appendix

Appendix A: Database of selected papers

Review	Rank	No. papers	Authors (date)	No. citations ¹
European journal of marketing	2	2	Antioco and Kleijnen (2010)	120
			Yan (2010)	43
Industrial Marketing Management	2	2	Hossain and al. (2020)	0
			Lee and al. (2019)	18
International Journal of Research in Marketing	1	8	Bleier, Goldfarb and Tucker (2020)	1
			de Keyser, Schepers and Konuş (2015)	68
			Homburg, Lauer and Vomberg (2019)	1
			Kannan and Li (2017)	417
			Konuş, Neslin and Verhoef (2014)	66
			Ng and Wakenshaw (2017)	223
			Reinartz, Wiegand and Imschloss (2019)	34
			Verhoef, Neslin and Vroomen (2007)	901
Journal of Advertising	2	1	Becker, Linzmajer and von Wangenheim (2017)	7
Journal of Advertising Research		2	Levy and Gvili (2015)	77
			Voorveld et al. (2016)	29
Journal of Consumer Research	1+	2	Schroll, Schnurr and Grewal (2018)	26
			Summers, Smith and Walker Reczek (2016)	64
Journal of Interactive Marketing	2	27	Andrews et al. (2016)	105
			Balasubramanian, Raghunathan and Mahajan (2005)	519
			Barcelos, Dantas and Sénécal (2018)	45
			Barwitz and Maas (2018)	41
			Busca and Bertrandias (2020)	0
			Campo and Breugelmans (2015)	63
			Cebollada, Chu and Jiang (2019)	3
			Cruz, Leonhardt and Pezzuti (2017)	27
			Dholakia et al. (2010)	288
			Dholakia, Zhao and Dholakia (2005)	294
			Eigenraam et al. (2018)	16
			Flavián, Gurrea and Orús (2019)	3
			Gensler, Neslin and Verhoef (2017)	125
			Kalyanam, Lenk and Rhee (2017)	4
Kumar and Venkatesan (2005)	650			
Liu (2019)	4			

¹ Citations from Google Scholar (Mai 2020).

			Markos, Labrecque and Milne (2018)	10
			Pagani, Racat and Hofacker (2019)	3
			Petit, Velasco and Spence (2019)	41
			Rangaswamy and Van Bruggen (2005)	460
			Shankar et al. (2016)	217
			Sultan, Rohm and Gao (2009)	260
			Trampe, Konuş and Verhoef (2014)	37
			Urban, Amyx and Lorenzon (2009)	392
			Varadarajan and Yadav (2009)	167
			Verhoef et al. (2017)	68
			Yadav et al. (2013)	347
Journal of International Marketing	2	1	Nam and Kannan (2020)	1
Journal of Marketing	1+	12	Avery et al. (2012)	391
			Day (2011)	822
			Giebelhausen et al. (2014)	168
			Godfrey, Seiders and Voss (2011)	172
			Janakiraman, Ho Lim and Rishika (2018)	36
			Kumar et al. (2016)	424
			Kumar and Reinartz (2016)	292
			Kushwaha, Venkatesh and Shankar (2013)	307
			Lamberton and Stephen (2016)	451
			Lemon and Verhoef (2016)	1425
			Valentini, Montaguti and Neslin (2011)	141
			Yadav and Pavlou (2014)	334
Journal of Marketing Research	1+	4	Anderson et al. (2010)	95
			Ansari, Mela, and Neslin (2008)	673
			Fisher, Gallino and Xu (2019)	25
			Li and Kannan (2014)	275
Journal of Retailing	1	25	Ailawadi and Farris (2017)	185
			Bilgicer et al. (2015)	66
			Blut et al. (2015)	117
			Breugelmans and Campo (2016)	44
			Darke et al. (2016)	63
			Emrich, Paul and Rudolph (2015)	78
			Grewal, Roggeveen and Nordfält (2017)	462
			Herhausen et al. (2015)	359
			Herhausen et al. (2019)	15
			Hess et al. (2020)	0
			Hult et al. (2019)	25
			Konuş, Verhoef and Neslin (2008)	571
			Kwon and Lennon (2009)	262
			Li et al. (2015)	25

			Ma (2016)	17
			Melis et al. (2015)	204
			Melis et al. (2016)	40
			Rapp et al. (2015)	230
			Shankar et al. (2011)	477
			Valentini, Neslin and Montaguti (2020)	0
			Verhoef, Kannan and Inman (2015)	1213
			Wang, Malthouse and Krishnamurthi (2015)	363
			Weathers, Sharma and Wood (2007)	350
			Yadav and Varadarajan (2005)	130
			Zhu et al. (2013)	147
Journal of the Academy of Marketing Science	1+	3	Kuehnl, Jozic and Homburg (2019)	17
			Novak and Hoffman (2019)	24
			Guiry, Mägi and Lutz (2006)	188
Marketing Letters	2	2	Gensler, Verhoef and Böhm (2012)	175
			Koenigstor and Groeppel-Klein (2012)	53
Marketing Science	1+	7	Dzyabura, Jagabathula and Muller (2019)	13
			Jing (2018)	35
			Kireyev, Kumar and Ofek (2017)	34
			Manchanda, Packard and Pattabhiramaiah (2015)	190
			Montaguti, Neslin and Valentini (2016)	51
			Rust and Huang (2014)	261
			Zhang (2009)	112
Marketing Theory	2	1	Cluley (2019)	1
Psychology and Marketing	2	5	Johnson, Bardhi and Dunn (2008)	167
			Antón, Camarero and Rodríguez (2013)	100
			Schweitzer and Van den Hende (2016)	23
			Rippé et al. (2017)	25
			Verhagen, van Dolen and Merikivi (2019)	4
Recherche et Applications en Marketing	Off-R.	4	Badot and Lemoine (2013)	46
			Bèzes (2019)	2
			Collin-Lachaud and Régine Vanheems (2016)	32
			Michaud-Trévinat and Stenger (2018)	1

Appendix B: Research priorities concerning shoppers' ambivalence to digitalization of retailing

Research questions	Research themes
<p>What are the characteristics stemming from digital device (e.g., frequency of use, interface customization, property) that engender shoppers' positive (vs negative) reactions? How do positive or negative feeling of shoppers due to some digital devices impact the shopping?</p>	Digital devices
<p>How the platform (e.g. Facebook, Twitter or Pinterest) characteristics affect shoppers' feeling during the shopping process?</p>	Social Networking
<p>When, how, and why do shoppers' journey design affect shoppers' reactions to technologies?</p>	Shopping journey
<p>When, how and to what extend shopping situation (e.g. shopping of food or technological products) affects valence of shoppers' reactions? Positive? Negative? Ambivalent?</p>	Shopping situation
<p>How do shoppers' failures/success in using technology in shopping experience (e.g. lack of knowledge, lack of practice, inability) affect the shoppers' reactions to digitalization? The shopping experience? When does shopper feel positive reactions (vs negative) to digitalization in his shopping experience? To what extent this feeling benefit (vs harm) to his evaluation of shopping experience?</p>	Shopper experience and technology
<p>When, how and to what extent shoppers' reactions to digitalization are ambivalent or polarized depending to the personal characteristics (e.g. shoppers' ability to technology, shoppers' access to technology, demographic elements)?</p>	Shopper's characteristics