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Digital or human touchpoints? Insights from consumer-facing in-store services

Abstract

Purpose. Prior research highlights the extent to which consumers largely appreciate the possibility to choose among different digital touchpoints during the in-store experience, which results in a pervasive introduction of digital touchpoints as the first point of contact between retailers and consumers. However, consumers also give value to the human interactions in the service channels. The previous studies do not conclusively indicate the best balance of digital and human services. The aim of this paper is to understand consumer-facing in-store services in new technology-enriched retail settings.

Design/methodology/approach. A qualitative approach involving face-to-face semi structured interviews was applied. To this end, we recruited 26 participants in Northern Italy between October and November 2017.

Findings. Results reveal motivations, preferences and discouraging factors leading consumers' interactions with digital or human touchpoints. Findings ultimately provide useful guidelines to managers on understanding consumers attitudes towards digital versus human touchpoints phenomenon.

Originality/value. By identifying the key drivers of either digital and human touchpoints selection in offline retail settings, the present study figured out the attributes playing the crucial role in determining consumers' preference regarding the in-store alternatives. Findings allow a further greater clarification of the practical issues, with emphasis on the new of human-machine integration.

Keywords. Digital touchpoints; human touchpoints; consumer behavior; retailing; human-computer interaction

1. Introduction

Recent studies show an increasing trend in digitizing in-store service, towards a pervasive introduction of digital touchpoints as the first point of contact between retailers and consumers able to replace the traditional human touchpoints (Hagberg et al., 2016; Willems et al., 2017). Although the human touchpoints (frontline employees) play a crucial role in consumers' service evaluation process, by influencing both shopping experience and the purchase behavior (Lim et al., 2017), several retailers are introducing digital touchpoints even outside the store with interactive storefront windows (Pantano, 2016). Examples of the different typologies of touchpoints are smartphones and mobile apps, catalogs loyalty programs, e-mail, display ads, humanoid shopping assistants, and so on. (Baxendale et al., 2015; Bertacchini et al., 2017; Broussard, 2016; Li and Kannan, 2014; Straker et al. 2015; Wind and Hays, 2016; Ieva and Ziliani, 2017). In particular, retailers introduce digital touchpoints to provide consumers with access to additional information on products to support them in finding, comparing, locating and buying goods, while enhancing their shopping experiences with entertaining and relaxing services (Van Kerrebroeck et al., 2017). For instance, Timberland introduced NFC tablets in few selected stores in New York in 2016 to facilitate consumers' engagement with all the products in the point of sale, just tapping the tag of each good by the tablet to view all the associated information, while they were invited to share the visualized product list (wish list) via email before the check-out.

The increasing introduction of digital touchpoints is further encouraging the shift from offline to online/mobile and to omnichannel retail settings (Dacko, 2017; Demirkan and Spohrer, 2014; Hilken et al., 2017; Inman and Nikolova, 2017; Papagiannidis et al., 2017; Rezaei and Valaei, 2017).

However, the combination of human and digital touchpoints leads to very different strategies. In few cases, digital touchpoints offer the same service as human ones, while in others, the point of sale offers only digital touchpoints, by emphasizing the incumbent risk of technology replacement of

employees' task (Huang and Rust, 2018). For instance, in the physical stores Argos (one of the UK's leading retailers) provide only digital touchpoints to find, compare and buy products (through interactive displays), while the purchase can be collected from the service counter that is staffed by real employees.

Past studies highlighted also the extent to which consumers appreciate the possibility to choose among the different typologies of touchpoints (Gelderman et al., 2011), and give value to the human interactions in the service channels (Immonen et al., 2018). However, prior research did not conclusively identify the best balance of digital and human services. The aim of this paper is to understand consumer-facing in-store services in new technology-enriched retail settings in order to answer the following research questions:

RQ1: What are the motivations, preferences and discouraging factors leading consumers' interactions with digital touchpoints when both human and digital touchpoints are available?

RQ2: What are the motivations, preferences and discouraging factors leading consumers' interactions with human touchpoints when both human and digital touchpoints are available?

To achieve this goal, the research employs a qualitative analysis involving 26 consumers, recruited in Northern Italy between October and November 2017.

The reminder of the paper is structured as it follows. The next section is devoted to the literature review of the past studies on digital and human touchpoints. The subsequent section is related to the methodology of research, data collection and analysis. Finally, findings are discussed, and implications for academics and practitioners are illustrated.

2. Literature Review

Touchpoints are defined as all the interactions that take place between the customer and the company with in-store technologies or sales personnel within the *journey* that the customer makes; in other words during his/her dynamic customer experience or the purchase cycle across different touchpoints

(Lemon and Verhoef, 2016). These interactions prompt a sort of *dialog window* between brands and customers. While literature on consumers' interactions with sales personnel is an established topic in retailing literature, consumers' interactions with in-store digital services is only recently emerging as a new line of inquiry (Bertacchini et al., 2017; Cano et al., 2017; Dacko, 2017; Gelderman et al., 2011; Immonen et al., 2018; Pantano and Gandini, 2017; Willems et al., 2017), thus pushing towards a deeper understanding of both digital and human touchpoints.

Touchpoints have been conceptualized in different ways: an episode of direct or indirect contact with the brand (Baxendale et al., 2015); synergic use of all firm resources to capture consumer's attention (Wind and Hays, 2016); a point of contact of the customer or a means by which the company and the customer interact (Neslin et al., 2006) or an occasion in which there is a meeting between the customer and the brand or the product, and the subsequent experience of use or actual purchase, a personal or mass communication (Kotler, 2017). Froehle and Roth (2004) identified five ways in which the contact with consumers takes place based on the level of interaction with the technology: (i) contact without technology, when in-store sales staff provide assistance to customers, without the support of any technology; (ii) contact with assisted technology; (iii) contact with facilitated technology; (iv) contact with the customer mediated by technology; (v) technology-based customer contact, which consists of a fully automated self-service setting in which technology replaces the role of sales personnel in service delivery.

Literature also proposes three main categories of touchpoints: static, interactive and human (Smilansky, 2017; Cano et al. 2017). Static touchpoints consist of the traditional ones that do not involve a direct interaction or dialogue with customers such as advertising on newspapers and magazines, television, shop windows, tickets and so on. Interactive touchpoints consist of the digital technologies involving a technology-mediated and interactive relationship and the active participation to the service co-creation (Chang et al., 2016a; Lloyd et al., 2016), such as mobile apps, interactive displays, touchscreens, etc. (Chang et al., 2016a; Pantano et al., 2017; Rezaei and Valaei, 2017; Straker et al. 2015). These digital or non-personal touchpoints are characterized by interactions

between the customer and the company through electronic graphic interfaces, without the direct assistance of an employee (Li and Kannan, 2014). Finally, human touchpoints are characterized by human presence, which implies direct contact between humans (usually between sales assistants/employees and consumers). Accordingly, employees need to develop ad hoc techniques to successfully build relationships with consumers to achieve long-term financial returns (Gremler and Gwinner, 2008; Lim et al., 2017). If employees fail to establish positive relationships, with such negative, arrogant, hostile attitudes or behave inappropriately, consumers develop a psychological discomfort (Wang et al., 2008; Williams and Aaker, 2002; Wilson and O’Gorman, 2003) resulting into negative consequences for the purchase decision.

Usually, if a consumer does not want to have a personal contact with store employees or does not want to wait for the checkout, s/he is expected to use digital touchpoints (Gelderman et al. 2011; Lee, 2015). On the other hand, if a consumer is not capable of using the technology autonomously or does not want to get involved in the production of the service, s/he is expected to start a human contact (with sales assistants) to receive the service (Burke, 2002; Lee, 2015). Indeed, access to digital services requires new capabilities from consumers, including the capacity to use the technology autonomously (Immonen et al., 2018).

Digital touchpoints have been further distinguished between those related to transactions and those related to information and customer service (Meuter et al., 2000). The first typology includes the technologies focused on facilitating transactions, such as placing an order, scanning a product and paying. The second typology includes the technologies focused on providing a huge number of information related to products and services, such as the mobile apps developed for specific retailers (Amirkhanpour et al. 2014), social media, information kiosks (Zielke et al., 2011), pervasive and immersive technologies (Papagiannidis et al., 2017), and so on. These are particularly attractive for customers seeking a maximum level of individual control while reducing the interpersonal interactions with sales personnel (Gelderman et al., 2011). However, these technologies involve the risk for consumers to share sensitive data that can be further used for other purposes (Akman and

Mishra, 2017; Chang, 2016b; Liu et al., 2017), which impacts the trust in the technology (Hawlitschek et al., 2018; Liu et al., 2017; Liu and Tang, 2018) and perceived control by consumers (Hansen et al., 2018; Wang, 2012).

Summarizing, the characteristics of digital touchpoints are:

- Interactivity, related to the degree to which users can modify the form or content of the mediated environment in real time. The term “interactive” indicates that the mediated communication has the characteristics of bidirectionality, timeliness, mutual controllability and reactivity (Bolton and Saxena-Iyer, 2009, Deighton and Kornfeld, 2009, Shankar and Malthouse, 2006; Yadav and Varadarajan, 2005).
- Comparative information, related to the quantity of information on a product/service of the retailer (e.g. price, characteristics, composition and delivery/return arrangements). Comparative information involves customers more in the decision-making process, producing a greater sense of self-control of the service (Li and Kannan, 2014).
- Entertainment, related to the digital stimuli of technology impacting the customer’s experience (immersion, flow, cognitive and emotional fit), which leads to customer behaviors and attitudes such as satisfaction, learning, retention, engagement, and purchases (Parise et al. 2016). The customer experience is influenced by the entertainment created by digital technologies in a sort of “immersion”. This immersion represents the degree to which the user has the feeling of being there. The two main concepts that characterize immersion are breadth (number of touchpoints) and depth (quality of the information conveyed across touchpoints, including visual, touch, and auditory senses) (Eroglu et al. 2005; Parise et al. 2016).

The number and complexity of customer touchpoints are increasing, as well as the belief that delivering strong and positive experience within the customer journey will improve the overall firms’ performance (Lemon and Verhoef, 2016). Customer experience is a multidimensional construct that involves the customer’s cognitive, affective, emotional, social, and physical responses to the retailer. This construct includes all direct and indirect interactions between the retailer and the consumers that

occur during the shopping journey (Calder et al., 2016; Homburg et al., 2017). As a dynamic and interactive process, the customer experience starts from pre-purchase, to purchase and post-purchase phases. During this process past experiences and external factors impact on customer journey as well as touchpoints that could induce customers to stop searching, to complete or to defer the purchase (Elberse, 2010), while the customer purchase journey is the process that involves a customer across all stages and touchpoints that influence customer experience (Lemon and Verhoef, 2016). Despite the different distinctions and categorizations of touchpoints provided by literature, the relevance of the points of contact between consumers and firms is strictly related to their role during the shopping experience (Lemon and Verhoef, 2016). For instance, De Haan and colleagues (2016) stated that within the customer journey different touchpoints can be identified and, depending on the nature of the product or service, they impact differently in each stage. Particularly, four categories of customer experience touchpoints are identified: i) brand-owned, ii) partner-owned, iii) customer-owned, and iv) social/external/independent (Lemon and Verhoef, 2016). Brand-owned touchpoints refer to those that are managed directly by the firm and are under firm's control (i.e. advertising, websites, loyalty programs, packaging, services, sales force, etc.). Partner-owned touchpoints refer to those that are designed, managed or controlled by the firm with a partner (i.e. marketing agencies). Customer-owned touchpoints are controlled by consumers, the firm or its partner cannot influence or control them. These kinds of touchpoint play a critical role during the post-purchase phase when consumers can influence others' shopping experiences developing negative word of mouth (Leeflang et al., 2014). Finally, social/external/independent touchpoints refer to all the other sources of information (i.e. other customers, review sites, peer influences, environments) that may influence the shopping experience. Therefore, understanding, implementing and balancing different touchpoints (both human and digital) in each stage of the shopping journey is emerging as a key challenge for retailers, who need to maximize customer satisfaction and loyalty during the shopping journey (Baxendale et al., 2015; Straker et al. 2015; Wind and Hays, 2016; Ieva and Ziliani, 2017).

While sales personnel (human touchpoints) need to establish relationships with consumers, to share and provide information to retailers and influence consumers' shopping behavior to increase profitability (Ha and Janda, 2011; Lim et al., 2017), digital touchpoints might replace their work, by enhancing the shopping experience (Chang et al., 2016a; Pantano and Gandini, 2017). Furthermore, unpleasant feelings about technology (i.e. perceived lack of usefulness), lack of human interactions, risks of service failure and employee resentment are often cited as negative aspects of digital technologies (Curran et al., 2003), which might generate a sense of dissatisfaction for consumers (Alcock and Millard, 2006). Consumers' acceptance of technological touchpoints has been mainly investigated through the technology acceptance model (TAM) (Davis, 1989) and its extensions (Homburg et al., 2010; Inman and Nikolova, 2017; Roy et al., 2018). However, recent studies solicit for different methods to understand consumers' behavior and their willingness to adopt certain technologies for shopping (Bradlow et al., 2017; Lloyd et al., 2016). Similarly, prior literature on digital and human touchpoints investigates human and digital touchpoints as stand-alone elements of the shopping experience, while encouraging further investigation of innovative ways of human-machine integration for delivering services (Huang et al., 2018).

3. Methodology of research

3.1 Data collection and procedure

The current study is exploratory in nature, as it aims to investigate the recent and emerging phenomenon of digital versus human touchpoints. To this end, the research employs a qualitative approach based on an inductive design to achieve a comprehensive understanding of the research context, as it is commonly adopted for theory generation (Pantano and Gandini, 2017). In particular, the research includes of face-to-face semi structured interviews with 26 consumers recruited in Northern Italy between October and November 2017, which lasted approximately 45 minutes each. The research involved a non-probability convenient sample, where members of the target population

met the criteria of easy accessibility, geographical proximity, availability at a given time, the willingness to participate are included for the purpose of the study (Dörnyei, 2007; Etikan et al., 2016).

Data were collected through a common interview guide (Table 1), while a copy of the data was forwarded to interviewees to confirm their authenticity and for reliability purposes (Moustakas, 1994).

Topic area	Question/s
Opening question	Can you tell me about your familiarity with human or digital touchpoints?
Interaction with new technologies	What kind of new technologies (i.e. smartphones) do you like using in your daily life? Why? Do you usually use any technology when shopping? Why?
Atmospherics	Why do you go to a physical point of sale for shopping? What are the main features that you notice when in a store? What do you appreciate more in a store? Why?
Past experience with digital and human touchpoint	Do you usually use the technologies available in the store (i.e. self-service cash desk)? When do you use them? Are you happy with this kind of service? Why? Do you usually like asking salesperson for advices? When do you do? Hare you happy with the delivered service? Why?
Others' influence	What influence have your friends when you buy a product? What influence has the salesperson when you buy a product?

Why? What kind of products do you usually ask suggestions for? To whom?

Wrap up

Do you have any other comment about the digital or human touchpoints, your consumer behavior, your preferences that you would like to share with me?

Table 1: Interview guide

Each interview was been recorded along with the authorization of the interviewee, and was subsequently transcribed by researchers to facilitate the data analysis. The names of the interviewees have been omitted for anonymization purposes. The data were been analyzed through thematic analysis (Braun and Clarke, 2006). Following Braun and Clarke (2006), the actual study used the research questions to code, and we associated the themes with the codes based on the space within each interview and across the interviews. The software WordStat has been employed to identify the codes manually extracted from the research questions (motivation, preference, discouraging, interaction, digital touchpoints) within the texts through a word frequency analysis. Subsequently, the system automatically identified the codes and the results have been compared (encourage, discourage, interact, touchpoints, trust, sales personnel). WordStat further allowed the analysis of themes by conducting a factor analysis based on Varimax rotation, by enabling the exploration of underlying thematic structure in the text of the interviews by combining statistical analysis and language processing. During this process, all the factor loadings with values higher than a certain value (in this case five, meaning that a factor must be included in at least five different interviews in the data set) were retrieved as part of the extracted topic. Nevertheless, topic modelling using factor analysis might result in some words being associated with more than one factor, thus researchers manually screened the emerging factors and synthesized the results into two main standpoints.

3.2. Sample profile

According to the characteristics of convenient sample, participants were recruited on the basis of their accessibility, geographical proximity, and availability to participate in the research (Dörnyei, 2007; Etikan et al., 2016), as well as their attitudes to shop in physical points of sale (participants access a physical point of sale for shopping at least once per month). In total, the convenient sample consists of 26 Italian consumers, 15 females and 11 males. Mostly are aged between 25 and 30 years (19 between 25 and 30; four between 31 and 35; one between 36 and 40; and two between 41 and 45). Concerning their channels of making purchases, five participants usually visit physical stores less than once per month, 11 respondents once/twice per month, five every week, and five more than twice per week. Two respondents usually spend one or two hours in the physical store, eight more than two hours, and 16 less than one hour. Moreover, participants described their knowledge and understanding of new technologies for supporting shopping (such as QR code, contactless payments, beacons, etc.) as good (14 know and use them, seven know them but never used, three use them always, and just one has no knowledge of those technologies). Finally, concerning the personal attitude towards new technologies, nine respondents wait to get a certain number of feedback before adopting a new technology, 11 respondents prefer waiting to see if friends or relatives use a technology before adopting it, two respondents are not willing to adopt new technologies, while only three respondents define themselves as the first to adopt a new technology when launched.

4. Findings and Discussion

The analysis of the drivers of consumer-facing in-store services in the new technology-enriched retail settings yields several meaningful insights for retailing and consumer behavior literature. In particular, two main standpoints emerge: (i) quality of service and interaction, and (ii) different perceptions of trust in technology and trust in sales personnel.

4.1 Quality of service and interaction.

Retailers usually aim to increase shopper dwell time as more time spent shopping drives to more purchases. But shoppers want technology to speed up their shopping experience:

“I would like to see a technology really fast. Sometimes there is a cue even to use the technology. It is a nightmare! They[retailers] could add few more to provide a really useful service.” (G., male, 32 years old).

Respondents reported that utilitarian value is one of the main attributes used by consumers to discriminate between the human and digital service. When comparing with the service provided by sales personnel, respondents consider the service delivery faster if interacting with the technology. For instance, the need to checkout fast was been mentioned in several interviews. Although respondents did not specify the kind of product requiring a fast checkout, they mentioned the fast checkout as the fundamental element of any in-store purchase experience. While the shopping experience might be slow and relaxing, the moment of payment has to be as fast as possible. This need for fast checkout comprises the main motivation leading consumers to adopt new technologies for payments very frequently and more often than in the past, consequently reducing the interactions with sales personnel for the same service. Accordingly, a respondent said:

“I usually don’t like using the technologies in the store, the one that I use is the mobile for paying. I hate to waste time at the cash desk just for paying!” (M., female, 25 years old).

While another one stated that: *“I use digital touchpoints such as the technologies for self-checkout so that I don’t have to wait for ages”* (O., female, 42 years old).

Moreover, digital technologies are fixed located in a particular corner of the store, easy to be identified by consumers, while sales personnel move around the store according to consumers’ requests, thus limiting their visibility to consumers especially in particular hours (i.e. in case of crowd). This difference might lead consumers to perceive digital service as a service always available (and clearly visible), while the human one is available only upon requests and not always guaranteed (depending on the number of consumers simultaneously requesting for assistance).

Even those consumers with less-than-positive attitudes towards the digital touchpoints would adopt technologies if they are able to secure faster payments and reduce waiting time at the cash desks. Indeed, technologies for self-payments (including self-service cash-desks and contactless payments/mobile app for payments, etc.) are considered the most accessed digital touchpoints in any kind of store (i.e. grocery, fashion, etc.), replacing the traditional service offered by the cashiers who are not involved in the service delivery, unless as supervisors.

Similarly, the crowd in the store limits the easy access to human service. When asked about atmospherics, several concerns regarding the crowd in the store were voiced. Respondents agreed that the most influential element of atmospherics is the level of the crowding in the store, and that the level of crowding is a major discouraging factor that affects their behavior more than traditional atmospherics such as lighting and colors. One respondent put it strongly:

“If I see too many people in the store, I leave immediately!” (V., female, 55 years old). The crowd in the store might affect consumers’ perception of the quality of the service, since it implies longer queues and less availability of employees to provide consumers assistance. In opposite, the quality of digital service (in terms of speed of delivery) is not affected by the number of consumers simultaneously accessing the system (more technologies are simultaneously available in the same area). Indeed, human touchpoints (sales personnel) might support consumers in providing additional information, finding, comparing, and paying for products, yet they lack capabilities to reduce the perception of the crowding in the physical point of sale. For instance, serving more consumers simultaneously could even increase the feeling of crowding. Given the huge importance respondents gave to the sense of crowding in the store, both human and digital service should be enhanced in this direction.

However, notwithstanding the benefits of the actual digital touchpoints, such as supporting the shopping experience, substituting the assistance of employees, providing a more pleasant environment, and speeding up processes such as the checkout, digital touchpoints are not yet able to eliminate crowding, especially in busy periods such as Christmas or big sales events. Concern over

the inability of digital touchpoints to reduce the sense of crowding is associated with the tendency to reject both the human and digital service and leave the store without any purchase.

To this end, an increasing number of retailers offer additional digital services such as virtually trying on apparel the products (i.e. smart mirror, virtual fitting rooms, etc.) to reduce the time spent in the fitting rooms (and in the queue). However, consumers did not show positive response towards this initiative, while emphasizing their persistent need to physically touch the products while in the real store. To this end, one respondent pointed out:

“I need to try them [clothes], because I’m not sure about the size they indicated. Sometimes it is not right and doesn’t fit my body!” (S., female, 26 years old), while another said:

“I like touching the product, the textile, the materials. Sometimes, I like exploring the store to find something new, which I want to try!” (E., female, 27 years old).

As a consequence, technology supporting virtual trial or virtual fit of products in the real store is scarcely used by the consumers, contrary to the online context where (e.g.) virtual touch might overcome some of the limitations of e-commerce channels. Current immersive and realistic technologies still fail to simulate the real touch, which, if it worked, could increase consumers’ confidence in making a good choice. Virtual touch cannot replace the real touch and does not provide additional information that might influence or support the purchase decision. Although technologies for virtually trying the product can reduce the time spent in the fitting rooms and save shoppers time in the store, this advantage appears not to be evaluated by consumers. Thus, the value to consumers of fast service facilitated by the interaction with a digital touchpoint is reduced.

4.2 Different perceptions of trust in technology and trust in sales personnel.

Although respondents consider the availability of human touchpoints (sales personnel) to be an element positively influencing the perception of the store, the majority of respondents stated that they do not interact with employees because they have a limited trust in them. Accordingly, respondents showed a preference for interacting with the technology, which they considered to be a more

trustworthy resource than employees. Indeed, respondents emphasized the employees' frequent strategy of pushing shoppers towards the purchase of certain products, without any particular focus on consumers' needs and preferences. Thus, they estimated employees to lack of independent judgments. In opposite, respondents consider digital technologies in store more objective and useful for suggestions of recommending new products or substitutes. In this way, consumers feel more satisfied with the shopping experience and do not perceive sales personnel inferences in their independent judgment. For instance, in the apparel sector interviewees clearly pointed the attention on the quality of suggestions and advices provided sales personnel for certain garments that not always reflect consumers' own characteristics, by generating in consumers the idea that sales personnel main task is to sell more items rather than effectively support the shopping experience. Digital technology, instead, suggests products that match the garment worn without adding any personal opinion on the quality of fitting. Consequently, many respondents said that they interact with human personnel for two main reasons: (i) if the technology does not work, or (ii) if they are not able to find autonomously a certain product and they expect that the sales personnel is able to direct them. Indeed, one respondent stated:

"I would remove all that intrusive people, and substitute them with digital technologies!" (V., male, 45 years old).

As anticipated, respondents consider that employees' recommendations are less trustworthy than those provided by the digital touchpoints, since they believe that the employees have the ultimate goal to sell products, even if they do not fit consumers' request. For instance, one respondent declared:

"I never ask information to employees, they know less than me!" (M., male, 34 years old).

This perception is in opposite with the trust in technology, believing that the technology only recommends products based on consumers' behavior and not on what the retailers pushes to sale. Thus, even involving a lack of control, the technology is perceived as able to provide honest responses, in opposite with the employees' ones.

However, a minority of respondents still like interacting with employees and asking opinions, especially when buying new products that they have not experienced before. They appreciate the opportunity to access opinions of trustworthy people to help make better choices. However they consider other consumers or friends more trustworthy than employees. Thus, personnel should be reachable by consumers when needed, while limiting their inferences on the decision-making process, which is actually perceived by consumers to be a factor that discourages both buying products and spending time in the store. Indeed, one respondent stated:

“When employees approach me as soon as I enter the store, I immediately reply that I’m only having a look, and if I cannot just look in the store I leave!!!” (V., female, 28 years old).

Employees’ recommendations ultimately produce a negative effect on consumers’ in-store experiences, accompanied by a loss of trust in the human service, as consequence of the lack of trust in their suggestions. Thus, employees are failing to establish trustworthy relationships with consumers by eliciting feelings of discomfort, contrary to the perception of the service provided by digital touchpoints. In other words, consumers are largely unreceptive to accepting suggestions (recommendations) from employees (human touchpoints) for choices of products in the offline context.

5. Conclusion

Drawing upon past studies comparing consumers’ interactions with sales personnel and with in-store digital services is emerging a new line of inquiry (Bertacchini et al., 2017; Cano et al., 2017; Chang et al., 2016a; Dacko, 2017; Gelderman et al., 2011; Huang and Rust, 2018; Immonen et al., 2018; Pantano and Gandini, 2017; Willems et al., 2017). The aim of this paper is to understand consumer-facing in-store services in the new technology-enriched retail settings by seeking a deeper understanding of both digital and human touchpoints services and interactions. Results reveal motivations, preferences and discouraging factors leading consumers’ interactions with digital or human touchpoints when the both touchpoints typologies are simultaneously available. In particular,

findings concern (i) quality of service and interaction (including the encouraging and discouraging elements in interacting with touchpoints VS sales personnel), and (ii) different perceptions of trust in technology and trust in sales personnel (Table 2).

	Sales personnel service	Digital service
Quality of service and interaction	Slow service delivery (discouraging service) Affected by number of consumers in the store	Faster service (encouraging element) Not affected by number of consumers in the store
Trust perception	Sales personnel suggestions are influenced by the need to sell (certain products) (discouraging element)	Technology provides honest suggestions/recommendations (encouraging element)

Table 2: Main findings emerged from the interviews analysis.

The contributions to the literature are manifold. First, the paper provides a foundation for explaining the encouraging and discouraging elements in interacting with either digital or human touchpoints in retail context when simultaneously available. The first encouraging element leading towards the usage of digital touchpoints is the utility value, since shoppers want to save time at the checkout, resulting in a faster service than that provided by employees (human touchpoints). This is the main reason for shoppers not usually willing to use new technologies accessing digital touchpoints. However, the most influential element is the level of the crowding in the store, extending past studies (Eroglu et al., 2015; van Kerrebroeck et al., 2017) on the negative effect of the crowding on consumers in-store behavior. Our work demonstrates that actual touchpoints (either digital and human ones) could be investigated to evaluate the possibility of limiting the discouraging effects of the crowding in the store.

Secondly, our study extends the past research on the importance of consumers' interaction with (real) sales personnel (Gelderman et al., 2011; Wang et al., 2008; Williams and Aaker, 2002; Wilson and O'Gorman, 2003), revealing that employees are actually failing to establish trustworthy relationships with consumers and instead eliciting feelings of discomfort, while trust in technology is playing a bigger role in purchase behavior. In particular, findings indicate that consumers access digital

touchpoints to access a faster service, while they prefer human ones only when the technology is hard to use or not working. Therefore, retailers should reconsider the role of sales personnel in the points of sale so as to retain the possibility of influencing or directing consumers' shopping behavior. In other words, sales personnel should achieve the new role of *facilitator*. In other words, s/he does not play the role of the person controlling consumers' shopping behavior (as perceived so far), but the one granting the consumers some space to let them feel comfortable and free to proceed or not with their purchases.

Thirdly, our paper investigates the simultaneous presence of human and digital service provides, where the risk of technology replacement of employees' task as incumbent (Huang and Rust, 2018). Indeed, findings show the preference of technology-preference service, considered more trustful and effective than the sales personnel recommendations. Although past studies considered trust in technology as a limiting factor in consumers adoption of technology (Liu and Tang, 2018), our findings ultimately reveal that trust in technology is higher than trust in the sales personnel when simultaneously available in the retail settings, by leading consumers to prefer the digital technology than the human one. Thus, if considering the in-store technology as a stand-alone element of the store, during the comparison between the services, its role is less critical for the choice to adopt the digital service when simultaneously evaluating the human service.

Summarizing, this paper compares and contrasts consumers in-store interactions with human (employees) and digital touchpoints, to better understand how to balance the co-existence of the both human and digital services based on the emerging sense of trust. By identifying the key drivers of either digital and human touchpoints selection in offline retail settings, the present study finds out the attributes playing the crucial role in determining consumers' preference regarding the in-store alternatives. These results provide useful guidelines for managers to balance digital and human touchpoints in store. First, findings indicate that investing in digital touchpoints can provide value to consumers if they mainly deliver utilitarian values rather than hedonic ones, i.e. for achieving faster services such as self-checkout. However, the sales personnel results being still an important

component of the in-store shopping experience, when they also need of physical touching and trying the products while in the store. Thus, the digital technology should make faster the process of finding and comparing products and paying for them, without wasting time on queue.

Secondly, retailers that choose to implement digital touchpoints in the store without turn down the sales personnel might balance better the number of digital touchpoints and employees considering the most used technologies. Indeed, the majority of respondents stated that self-checkout machines are the most useful to speed up the shopping experience, by leading towards a reduction of cashier to increase the number of personal shopping assistants.

Due to the high level of trust toward digital touchpoints suggested by findings, retailers should finally develop new training programs for their employees on how to establish trustworthy relationships with consumers.

This study is also subject to some limitations. First, the data collection might suffer from the sample choice, as the respondents were not recruited within a store, while they were asked to reply to the questions considering their experience with a store of their choice. Thus, consumers were not exposed to a certain service in a certain store when answering, and their responses might be different when actually in a point of sale. Future studies might replicate this research in a specific (brand) store with specific digital and human services in action.

Similarly, the sample of consumers consists of people with some past knowledge and understanding of new technologies for supporting shopping, the results indicate, are willing to adopt after a certain period of time. Therefore, we expect that non-innovative consumers who are not aware of new technologies might be differently affected by the availability of digital touchpoints. To explore this heterogeneity of consumer technology-readiness further, future studies could examine the exposure of digital and human touchpoints with consumers with limited (or even no) experience in new technologies.

Moreover, the research focused on Italian respondents without considering cultural aspects that could impact on their responses. Future researches should replicate the study in other countries examining

the cultural drivers towards the preference of technology-based versus human-based services, as some cultures might privilege the human contact rather than the automatic provided by automatic systems/new technologies. Finally, new research might provide a new predictive model of consumers' behavior when digital and human touchpoints coexist, including different variables such as utility, innovativeness, trust in technology and trust in the employees.

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