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Publication metadata:

Title: Viability of Amazon's driven innovations targeting shoppers' impulsiveness

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Journal: Journal of Retailing and Consumer Services

DOI: <https://doi.org/10.1016/j.jretconser.2019.101973>

How to cite this post-print from LAUR:

Farah, M. F., & Ramadan, Z. B. (2020). Viability of Amazon's driven innovations targeting shoppers' impulsiveness. Journal of Retailing and Consumer Services,

Doi:<https://doi.org/10.1016/j.jretconser.2019.101973>/Handle: <http://hdl.handle.net/10725/11835>

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Viability of Amazon's driven innovations targeting shoppers' impulsiveness

Citation: Farah, M. F., & Ramadan, Z. B. (2020). Viability of Amazon's driven innovations targeting shoppers' impulsiveness. *Journal of Retailing and Consumer Services*, 53, <https://doi.org/10.1016/j.jretconser.2019.101973>

Abstract

The growth of new technological innovations has given rise to a highly digitized retailing world that is re-defining the consumer purchase journey. Innovations, such as Amazon's Alexa, Dash-buttons (physical and virtual), and Spark, have indeed led to the creation of an Omni-channel journey that reshaped the shopping experience. Such tech-disruptions are likely to have a significant bearing on shoppers, brands and retailers, which is expected to vary between the short and the long-term. A quantitative research based on 600 U.S. Amazon customers studied the long-term incremental sales effect of e-retailers' tech innovations when driven by impulsive shopping behavior. The findings show that while retailers' tech-driven solutions would increase shoppers' impulsiveness, and hence sales, their continued interaction with such purchasing solutions would decline over time, making the overall innovation cycle much shorter.

Keywords: Disruptive technology; E-commerce; WOM; impulsive buying; affective experience; Amazon

Introduction

The expansion and growth of new technological innovations have given rise to a highly digitized retailing world that is re-defining the consumer purchase journey (Farah et al., 2019). This phenomenon has created a multitude of new touch points that are blurring the boundaries between the online and the offline worlds. Such innovations have the peculiarity of enhancing the interaction between retailers and customers, increasing the latter's overall satisfaction, and amplifying their loyalty to progressive retailers (Fang *et al.*, 2016; Ramadan and Farah, 2017; Ramadan *et al.*, 2017; Ramadan *et al.*, 2019).

Retailer-driven technological innovations, such as Amazon's Alexa, Dash-buttons (physical and virtual), and Spark, have indeed led to the creation of an Omni-channel journey that reshaped the shopping experience, yet have limited consumer exposure to other choices in the market (Farah and Ramadan, 2017; Ramadan, 2019a). While the Amazon Dash button consists of a small wireless brand-specific button that allows Amazon prime members to reorder specific products by simply pressing it, Alexa as well as the virtual Dash Buttons have taken over to provide a more seamless

reordering process. Furthermore, Amazon's own social platform, Spark, designed to help people link with those with similar interests and ease their product discovery has developed further the notion of social shopping.

While consumers seem to obtain immediate gratification due to the ease of purchase through these innovations, the loss of exposure to other options would lead to purchase impulsiveness (Singh, 2017). Furthermore, their usage is expected to lead shopper to an underlying dependency on impulsiveness, where preferred products are directly purchased (Farah and Ramadan, 2017; Ramadan *et al.*, 2019). In 2013, 62% of retail sales were based on highly profitable impulsive purchase behaviour (Ayadi *et al.*, 2013). Interestingly, a more recent study conducted by Slickdeals in 2018 advanced that the average American consumer spends more than \$324,000 on impulse purchases throughout his/her adulthood stage. These figures were compiled based on findings reflecting an average of three impulsive purchases per week (or roughly 156 purchases per year). Hence, a typical American consumer is believed to spend impulsively \$450 per month, or \$5,400 a year (Fool, 2018; O'Brien, 2018).

Nevertheless, as the impulsive behaviour starts to turn into a habit, consumers typically become more aware of the consequences associated with their purchase decision (Amos *et al.*, 2014). With time, the triggering stimulus is expected to weaken as the shopper becomes increasingly aware of his/her impulsive purchase behaviour caused by the availability of these innovations in one's surrounding.

The extant literature in relation to the innovative Amazon technological purchase solutions, affecting impulsive behaviour that piggy-back on prior affective experience with brands is still largely underdeveloped (Melero *et al.*, 2016). Nevertheless, such tech-disruptions are likely to have a significant bearing on the key market constituents, namely shoppers, brands and retailers, which is expected to vary between the short and the long-term.

Accordingly, this study aims to fill a sizeable gap in relation to the viability of purchase solutions when built around technological innovations, as these come with undeniable risks and opportunities to shoppers, brands and retailers alike. Hence, the paper specifically examines the tendency for shoppers to reuse these solutions based on their: (1) impulsiveness; (2) affective experience with brands bought through Amazon's purchasing solutions, which are typically based on passion, intimacy and positive emotions and opinions (Albert *et al.*, 2013) that consumers exhibit towards a specific brand; and, last but not least, (3) perpetrated word-of-mouth (WOM)

endorsement linked to the reordering process. As such, the paper will first develop the conceptual framework through a literature review discussing the aforementioned relationships. It discusses the underlying hypotheses linking shoppers' impulsiveness and their affective brand experience, and WOM to their continued interaction with Amazon's innovative purchase solutions. The adopted research methodology is then described alongside the constructs validation process and the model estimation. The paper concludes on the discussion of the findings and their implications both for academics and practitioners.

Conceptual Framework

The effects of the affective experience with brands bought through Amazon's tech-driven purchase solutions on shoppers' impulsiveness

The impulsive buying behaviour of consumers is defined as a sudden, often persistent and powerful desire to buy something on the spot (Farah and Ramadan, 2017). The impulse decision to purchase products is not consciously planned, but instead arises upon the exposure to a specific stimulus. Although some behaviours occur relatively automatically out of habit; however, they do not classify as impulsive per se (Heimlich and Ardoin, 2008). In order for a purchase to be categorized as impulsive, it needs to occur immediately upon exposure to the stimuli (Dawson and Kim, 2009), with little consideration to the consequences associated with the purchase (Park *et al.*, 2012).

Four main elements categorize an impulsive purchase: (1) the decision made to purchase the product needs to be unplanned, (2) the consumer needs to be exposed to a specific stimulus, (3) the decision made needs to be done "on-the-spot", and last but not least, (4) the decision should involve an emotional and/or cognitive reaction to the stimulus (Jeffrey and Hodge, 2007). These four elements would apply to the case of Amazon's discussed innovations. Indeed, the purchase process through these solutions appears to be unplanned as it is triggered by the exposure to a stimulus reminding the consumer of the need for that specific item. This impulse leads to an "on the spot" decision to either initiate a conversation with Alexa, press the physical / virtual Dash Button or click the picture featured on the Spark network to purchase the item. The decision made creates an emotional and/or cognitive reaction, meaning that receiving the preferred item following the above interactions provides an immediate gratification to the shopper (Park *et al.*, 2009). As

such, the trigger to an impulsive purchase in such a non-traditional shopping environment is driven by exposure to these Amazon solutions (Dholakia, 2000).

The consumer's personality traits, such as emotional state, normative evaluations and demographic factors, act as internal cues that directly affect the degree of the impulsive buying tendency of individuals (Romo et al., 2017). The internal cues that trigger impulsive buying behaviours include the cognitive and affective state of individuals (Dawson and Kim, 2009). The affective state is defined as being based on the emotions, mood and feelings that individuals experience during the process of making a purchase decision (Spears and Singh, 2004). It is part of the overall brand experience, which includes behavioural and cognitive reactions, in addition to sensations and feelings (Brakus et al. 2009). In fact, brand experiences extend beyond general evaluations to encompass specific emotions triggered by a brand's stimuli (Brakus et al., 2009). In this regard, extensive literature has discussed the dynamics and antecedents of affective brand connections and experiences. Khan and Fatma (2017) identified three main constructs that directly affect brand experience: brand cues, marketing communication and event communication.

Further criteria can strengthen consumers' emotional brand experiences and attachment. Communication, listening skills and strategic thinking are considered key for a brand to develop intimate relationships with customers, and eventually survive (Cross, 2000). According to Allen and Meyer (1990), a customer's identification with a brand accentuates their affective commitment, or emotional bond with it. Mathew and Thomas (2018) underlined the direct positive influence of brand experience on brand loyalty. Hence, former positive brand experiences positively affect brand-purchasing intentions, and predict a continuous evolution of the consumer journey (Diallo and Siqueira, 2017).

Shoppers might experience feelings of "irresistible urge to buy, positive buying emotions, and mood management" (Coley and Burgess, 2003, p. 283) when exposed to the internal stimuli. Earlier literature assumes that the consumer decision-making process consists of a cognitive process that associates a semantic meaning to product attributes (e.g., Jeng and Fesenmaier, 2002). However, recent research suggests that affective processes also play a big role in motivating and influencing the decision-making process of consumers (Iyengar and Lepper, 2000).

Strack and Werth (2006) remark that affect and arousal often accompany impulsive purchases, while cognitive resources are needed to control their execution. In fact, the pleasure of consumption can be experienced prior to the consumption act itself, whereas rational decision

making could decrease this pleasurable anticipation (Kwortnik and Ross, 2007). Additionally, the consumption experience is considered as one of the core elements in determining the consumers' long term relationship with the brand (Fang *et al.*, 2016; Mrad, 2018; Cui *et al.*, 2018; Itani *et al.*, 2019a; 2019b).

The impulsiveness of Amazon shoppers is highly influenced by the omni-presence of these innovations in the consumers' surrounding (Farah and Ramadan, 2017; Ramadan *et al.*, 2019). The instant satisfaction and gratification aspect gained from the use of these innovations also leads to an impulsive shopping behaviour (Amos *et al.*, 2014). Amazon aims to improve the online shopping experience through convenient and easy to access purchasing (Farah and Ramadan, 2017), hence increasing the overall perceived value of the purchasing service. This perceived value can be based on affective elements such as passion, intimacy and positive emotions and opinions (Albert *et al.*, 2013) that consumers exhibit towards a brand. On that basis, the researchers hypothesize the following:

H₁: The higher the affective experience with brands bought through Amazon's purchasing solutions, the higher the shoppers' impulsiveness.

The effects of the affective experience with brands bought through Amazon's tech-driven purchase solutions on shoppers' word of mouth

Although traditional word of mouth (WOM) has been deliberated on from the viewpoint of face-to-face interaction (Bansal and Voyer, 2000), nowadays it has become more prevalent in a digital format (Kilian *et al.*, 2012). The advent of social media has led to a wider spread of electronic word of mouth (eWOM), making WOM one of the most important and effective channels for the dissemination of information (Kilian *et al.*, 2012). WOM plays a big role in influencing consumers' choices and purchasing decision (Chevalier and Mayzlin, 2006). In addition, previous literature has shown that WOM influences consumers' expectations (Brown *et al.*, 2005), pre-usage attitudes (Lau and Ng, 2001), as well as the post usage attitude towards a product or service (Cheung *et al.*, 2008). Some researchers have also suggested that the influence achieved by WOM exceeds that of printed ads, radio ads or even personal face-to-face selling (Trusov *et al.*, 2009). WOM can have either a positive or a negative (East *et al.*, 2008) influence on the consumers' decision-making process. Interestingly, WOM has a great influence on the purchase of household

goods and food products (Pickett-Baker and Ozaki, 2008) such as those offered by Amazon's tech innovations, making them a key success element.

Considerable research has been conducted in the hope to further understand the effects of WOM and their consequences on consumers' decision-making process (De Bruyn and Lilien, 2008). WOM communication yields a strong influence on the judgment of consumers during their purchase decision by affecting other peoples' cognitive and emotional behaviour (Wetzer *et al.*, 2007). Marketers attempt to leverage the power of WOM in order to spread positive endorsements about their brand (De Bruyn and Lilien, 2008). In fact, Dhar and Chang (2009) present WOM as an influential form of advocacy. The information communicated through WOM can affect the brand purchases, as its source is deemed as trustworthy.

When people develop weak ties with brands, they are less likely to engage in spreading WOM, whereas establishing strong ties with brands will perpetrate influential WOM referrals (East *et al.*, 2008; Mrad and Cui, 2017). Moreover, brand love strongly influences both online and offline WOM, moderated by brand experience (Karjaluo et al. (2016). In other words, brand affective commitment results in an increased consumer brand advocacy (Turri et al., 2013). Also, brand love and consumers' emotional brand attachment can increase their perpetrated positive WOM (Carroll and Ahuvia, 2006). Accordingly, Chakravarty et al. (2010) expect such customers to turn into brand "evangelists", not only spreading positive WOM but also encouraging others to purchase and use the brand.

In the process of choosing a recommendation source, consumers' experiences act as a basis for credible knowledge (Senecal and Nantel, 2004). Moreover, findings from sociology, cognitive psychology and consumer behaviour studies suggest that consumption behaviour entices subjective feelings that affect the future purchase behaviour of consumers (Dubé and Menon, 2000). The latter is expected to influence the motivation to consume a certain product and/or use a certain service (Liang and Lai, 2002) based on the generated WOM.

In sum, online brand experience significantly drives online brand engagement, which in turn increases online WOM Loureiro et al. (2017). Indeed, prime consumers who develop affective ties with the brand bought through Amazon's purchasing solutions are likely to share positive WOM with their entourage as well as with the general public on different digital platforms. Accordingly, the researchers hypothesize:

H₂: The higher the affective experience with brands bought through Amazon's purchasing solutions, the higher the shoppers' generated WOM recommending the use of these purchasing solutions.

The effects of Amazon users' generated WOM on their continued interaction with Amazon's tech-driven purchase solutions

The extant literature introduced earlier in this paper indicate that affective experiences (Maxham and Netemeyer, 2002), commitment (Harrison-Walker, 2001), loyalty (Wangenheim and Bayon, 2004) and product innovation (Trusov *et al.*, 2009) are major reasons for users to generate WOM. These factors reflect the content aspect of the interaction, yet do not account for the engagement frequency.

While the direct effects of WOM may prove to be more challenging to evaluate than that of a traditional marketing activity, the main bearing of WOM remains "to increase the overall long-term profitability of the customer base" (Haenlein and Libai, 2017, p. 70). WOM referrals by other users are known to have a higher effect in comparison to traditional marketing (Trusov *et al.*, 2009), whereby consumers are more likely to trust the recommendation of other people than that of marketers (Cheung *et al.*, 2009). Moreover, researchers have found that 20 to 50 percent of all the purchasing decisions are affected by word of mouth (Bughin *et al.*, 2010). With the advance of the internet, e-WOM has played an increasingly important role, as it is no longer limited to a one-to-one basis, but rather to a one-to-many basis where people from around the world share their opinions through social media platforms and blogs (Abu-Khzam and Lamaa, 2018; Al Shehhi *et al.*, 2019). WOM and e-WOM can affect brand perceptions, market share and the purchase rates (Ramadan, 2018; Ramadan, 2019b).

There are three forms of WOM, the sum of which increase consumers' knowledge about products/services and their interaction with brands. First, experiential word of mouth, which accounts for 50 to 80 percent of WOM activity, can highly affect the interaction with brands. These results from a direct experience between consumers and brands, especially when the experience deviates from what was expected (Bughin *et al.*, 2010). Second, consequential WOM is another form that refers to when consumers are exposed to advertising campaigns from which they tend to take opinions and publicize it (Zgheib, 2017). The last form of WOM is the intentional one, where brands pay to bloggers or celebrities in order to publicize a product/ service. While the latter form

is being massively used by brands; people still rely on organic and honest WOM to come up with a clear decision on which product/service to purchase.

WOM is generally generated by either a positive or a negative experience. In fact, companies are always trying to improve consumers' experiences, thus increasing positive WOM by offering innovative products and services that fulfil their needs in a more convenient way (Sorescu *et al.*, 2011). With the increase of the self-service technologies (SSTs), companies saw that it is crucial to introduce them to their companies' strategies to offer customers a better brand overall experience (Bitner *et al.*, 2002). However, the one important concern companies have been tackling lately is the acceptance of those services by customers, which will lead to their usage on a continuous basis. Therefore, companies should present those services properly to their clientele by means of promoting a friendly user experience and convenience (Meuter *et al.*, 2000). This is particularly needed as SSTs generally require increased involvement from consumers (Curran and Meuter, 2005; Demoulin and Djelassi, 2016; Msaed *et al.*, 2017; Vakulenko *et al.*, 2018). On one hand, some customers consider those services to be a threat as they prefer to interact with people (Meuter *et al.*, 2005). The latter segment of consumers perceive that SSTs require significant time and effort to learn how to operate those (Williams *et al.*, 2005). On the other hand, some customers perceive it to be a fun technology (Curran and Meuter, 2007), that can reduce waiting time, allow for a greater control over those services, offer remarkable convenience and service customization (Bitner *et al.*, 2000). In fact, the adoption of those technologies is based on four predictors: usefulness, ease of use, risk and need for interaction. The first element refers to the improvement in the way a user can complete a certain task while using those services. The ease of use is the degree to which a user will find the implementation of a technology free of painful and demanding efforts (Chamelian, 2016). The related risk is linked to the negative consequences associated with the usage of those technologies. This risk is associated to the fourth and last component, the need for interaction with others, whereby SSTs would eliminate interpersonal interaction (Curran and Meuter, 2007; Demoulin and Djelassi, 2016; Nieroda *et al.*, 2018). Indeed, the main aim of companies is to minimize any negative consequence related to the usage of SSTs by creating engaging overall experiences that will positively affect the continued interaction with brands (Lin and Hsieh, 2007).

Brands believe that consumer satisfaction tend to generate positive WOM. In addition, positive WOM does not only encourage current clients to repurchase, but also attracts new clients (Van

Doorn *et al.*, 2010). In the specific case of Amazon's tech innovations, consumers have been increasingly adopting their various proposed SSTs (Newman, 2016), as a result of the positive eWOM that Amazon is gaining from online users (Jøsang *et al.*, 2007). Consequently, the researchers hypothesize:

H₃: The higher the generated WOM by shoppers using Amazon's purchasing solutions, the higher their continued interaction with Amazon's tech solutions.

The effects of shoppers' impulsiveness on their continued interaction with Amazon's tech-driven purchase solutions

The presence and continued exposure to the Amazon's tech-driven purchase solutions at one's premises turns it into a casual household object that becomes part of one's everyday life, consistently reminding the consumer to purchase the product (Farah and Ramadan, 2017). Regular exposure to such stimuli can lead to a lower level of self-control among consumers while making a purchase decision (Baumeister, 2002). Indeed, self-control is defined as the "self's capacity to alter its own states and responses" (Baumeister, 2002, p. 670). When individuals forgo this sense of control, they tend to react impulsively with little evaluation of the potential consequences of their actions (Karande and Merchant, 2012).

Furthermore, with a high spending power and an extraversion character (Verplanken and Herabadi, 2001), people tend to buy more without even thinking of the importance of their purchases (Sun and Wu, 2011), especially when there is a lack of self-control (Baumeister, 2002). Moreover, some people experience a sense of regret during the post-purchase phase, once they realize that the resulting value of the impulse does not outweigh its perceived cost (Curwen and Park, 2014). This behaviour would lead to a discontinuation in the usage of any SST service as shoppers become well aware that the impulsive decisions that they are taking are leading to negative consequences.

Besides, the increase in frequency of exposure to the stimuli can change the nature of the purchase from impulsive to habitual. Habitual behaviour can be automatic however, do not necessary classify as impulsive purchasing (Fenton-O'Creavy *et al.*, 2018). In impulsive purchasing instances, shoppers are likely to become more interested in the immediate gratification of their present need (Dawson and Kim, 2009).

Several studies have investigated the frequency of impulse buying behaviour in different retail settings, and across various product categories (Leong *et al.*, 2018). It has been evident that “habits of thrift and regular purchasing patterns are likely to minimize the impulsive purchase” (Baumeister, 2002, p. 674). Indeed, the habitual form of buying behaviour causes the shoppers to rely on cognitive evaluation processes, which become rather automatic, hence speeding the decision-making process (Xu *et al.*, 2013). With time, the effect of the triggering stimuli will be expected to weaken as consumers become accustomed and aware of their impulsive behaviour that was initially triggered by Amazon’s purchasing solutions.

In fact, Amazon introduced various tech-driven purchasing innovations with the aim to increase consumers’ spending through an easy and smooth process (Winchsomb *et al.*, 2017). This behaviour engenders consumers paying considerable sums of money just through a simple interaction with these innovations, even when the ordered products are not immediately needed. Thus, this raises a red flag and causes a decrease in the interaction with these purchasing solutions. On that basis, the researchers hypothesize the following:

H₄: The higher the impulsiveness of shoppers, the lower their continued interaction with Amazon’s purchasing solutions.

INSERT HERE: Figure 1: The Conceptual Model

Research Methodology

Data Collection

The internet-based questionnaire was distributed to Amazon users in the US market through Qualtrics, a renowned research agency. The sole selection criteria during the data collection phase was based on recruiting respondents with at least 3 months of experience with an Amazon tech-driven purchasing solution. In fact, no demographic/geographic criteria was pre-set ahead of data collection in order to maximize the representativeness of the data. Moreover, so as to avoid research bias, the survey design adopted a counterbalancing question order so as to avoid priming effects. As such, respondents were asked about their continued interaction with Amazon’s tech-driven purchasing solutions and their perpetrated WOM before being asked about their affective brand experience (Podsakoff *et al.*, 2003).

The pilot phase, which consisted of testing the survey with nine respondents, allowed checking for the instrument's face validity including the structure of the survey and whether the questions were overall comprehensible by the population of interest. Discriminant validity was tested over the 600 completed questionnaires through exploratory and confirmatory factor analyses. The agency reported an incidence rate of 15%. Data analysis was conducted through SPSS 24 and LISREL 8.8.

Measures

The survey aimed to evaluate the consumer's affective brand experience using a scale devised by Brakus, Schmitt, and Zarantonello (2009). The original scale consists of a 12-item scale that measures brand experience in terms of all sensory, affective, behavioural and intellectual dimensions. However, and in accordance with the proposed hypotheses of this study, the questionnaire utilized 2 out of the 3 items related to the affective dimension scale. The removed item, which was proposed as a reverse coded-item, did not load adequately. Respondents were asked to express their affective brand experience on a 7-point Likert scale.

Consumers' word-of-mouth intentions (WOM) were assessed using three 7-point Likert scale items that were adapted from Babin *et al.* (2005). This scale measured the respondents' agreement on statements concerning intentions to (a) positively recommend Amazon's purchasing solutions to another consumer, (b) encourage friends and relatives to do business with Amazon through their innovative solutions, and (c) say positive things to others about these innovations.

The survey included a validated 5-item scale that was proposed by Rook and Fisher (1995) to assess the impulsiveness of the shoppers (Hausman, 2000) who use Amazon's purchasing solutions. This impulsiveness 7-point Likert scale is utilized in the literature to measure one's impulsive purchasing behaviour (Mishra *et al.*, 2014).

The survey also asked respondents to evaluate on a 7-point Likert scale their likelihood to continue interacting with Amazon's purchasing solutions using the 3-item scale by Shamdasani *et al.* (2008), which is adopted from the intention-to-use scale devised by Dabholkar in 1996.

The last part of the survey asked a series of demographic questions including age, gender, marital status, and respondent's occupation.

Sample Profiling

Accordingly, the gender distribution came as follows: 52% female (312) and 48% male (288). The main age bracket was those between 25-34 years old (39%, 234 respondents), then the 35-44 age group (23%, 138 respondents), 18-24 group (15%, 90 respondents), 45-44 group (13%, 78 respondents), and 55-64 group (10%, 60 respondents). The civil status distribution was as follows: married shoppers (51%, 306 respondents), followed by single shoppers (44.5%, 267), and divorced ones (4.5%, 27 respondents). The employment distribution was split as follows: employed (67%, 402 respondents), students (13%, 78 respondents), self-employed (12%, 72 respondents), and unemployed (8%, 48 respondents). Moreover, a large majority of the sample stated to have been using an Amazon purchasing solution for between 1 to 6 months (54%, 324 respondents), followed by 7 to 12 months (20%, 120 respondents), less than 1 month (15%, 90 respondents), and lastly for more than a year (11%, 66 respondents).

Analysis and constructs validation

The survey included multi-item scales constructs which are presented in Table 1 alongside the following statistics: mean, standard deviation, AVE, and Cronbach's α tests for reliability. Cronbach's α for impulsiveness, WOM, continued interaction and affective experience with friends indicated adequate internal consistency with the following respective values: 0.92, 0.85, 0.83 and 0.82 (Carmines and Zeller, 1979; Nunnally, 1978). The common method bias test was also conducted using the Harman's single factor test (an exploratory factor analysis approach to test for common method biases). No single factor accounted for the majority of the variance: all the un-rotated variables loaded on different factors, with the first one accounting for 44% of total variance, which is less than that the threshold of 50% set by Podsakoff and Organ (1986).

Discriminant validity was tested using exploratory factor analysis to measure the degree to which two constructs are distinct (Bagozzi, 1991), with all measured items loading properly showing no items' cross-loading (see table 1). In addition, discriminant validity was tested and confirmed using the average variance extracted method (AVE), whereby a construct is deemed to be distinct if the AVE by the items related to that construct is greater than the construct's shared variance with other constructs (Fornell and Larcker, 1981). Table 1 reflects the results of the above tests as well as the exploratory factor analysis loading.

INSERT HERE: Table 1: General statistics and exploratory factor analysis

The data was then tested for validity through LISREL 8.8 using confirmatory factor analysis. The resulting indices were chi-square (χ^2) = 204 (59 degrees of freedom (d.f.)) and p -value=0.00. The model also had good fit indices: $NFI=0.983$, $IFI = 0.988$, $CFI= 0.988$, $GFI= 0.950$, and $RMSEA=0.0639$.

Model Estimation and empirical research findings

Based on the model estimation, the results showed that all hypotheses were statistically significant, hence supported (see figure 2). The following indices were utilized to evaluate the fit of the model: the goodness of fit index (GFI), the comparative fit index (CFI), the normed fit index (NFI), the incremental fit index (IFI), as well as the Root Mean Square Error of Approximation (RMSEA). All of these indices had acceptable fits (Steenkamp and Baumgartner, 2000) as follows: $GFI = 0.950$, $CFI= 0.988$, $NFI=0.983$, $IFI=0.988$, and $RMSEA = 0.0626$. As for the RMSEA, it was deemed as suitable at 0.0626, since a value of 0.08 typically represents a reasonable error of approximation for this absolute measure of fit (Browne and Cudeck, 1993). All in all, the estimation of the model showed a good fit with $\chi^2=204$ (61), p -value=0.00.

INSERT HERE: Figure 2: Model Estimation

As hypothesized, affective experience with brands had a direct impact on continued impulsiveness ($H_1: \beta = .655, p < .001$) and WOM ($H_2: \beta = .947, p < .001$). Moreover, WOM had a significant positive effect on continued interaction ($H_3: \beta = .484, p < .001$); and impulsiveness had, as expected, a significant negative effect on continued interaction ($H_4: \beta = -.226, p < .01$). In sum, all the research hypotheses tested were statistically supported.

Discussion of the findings and implications

The findings show that while e-retailers' tech innovations that are pitched to be used at home and are built upon shoppers' impulsiveness present lucrative sales opportunities, this model is not likely to be viable in the long run. Indeed, the results show that with time, the triggering stimulus will weaken as shoppers become accustomed and aware of the impulsive behaviour that Amazon's

purchasing solutions are inducing through the regular exposure to these stimuli. This is reflected in the proposed model (see Figure 1), whereby the more impulsive the shoppers, the lessened their interactions with Amazon's solutions. This is accentuated by the fact that consumers tend as well to use several Amazon purchasing solutions, increasing with this the sheer number of potential interactions with the retailer.

From a scholarly perspective, this study fills a major gap in the extant literature. Indeed, it is the first research to look at an e-retailer's innovation cycle, and hence viability. In fact, research has shown that one particular innovation may increase shoppers' impulsive behaviour while decreasing the interaction with that innovation in the long-term, leading it to become an ineffective tool to be replaced by a newer generation solution. This is exemplified by the obsolescence of the physical Dash button that Amazon has stopped producing after two years of its initial launch, with Alexa cannibalizing the interaction that was initially established with the Dash button. This is reflected by the overall model and more specifically on the underlying hypotheses.

The testing of the first hypothesis (H₁) demonstrated that the affective experience with brands that customers buy through Amazon's purchasing solutions increases their buying impulsiveness. This is aligned with the literature whereby it has been demonstrated that customers' affective state with a brand shapes their behavior towards it (Fedorikhin *et al.*, 2008). This in turn reinforces the findings by Japutra *et al.* (2017) that brand affective attachment positively influences impulsive buying.

On the same line, this emotional experience with brands bought through the e-retailers tech-driven purchasing solutions (H₂) fuels shoppers' generated WOM recommending the use of these purchasing solutions through posts, comments and recommendations made around these purchasing tools. While consumers mainly spread WOM based on persistent loyalty driven by a prolonged relationship with a given brand (Wangenheim and Bayon, 2004; Farah, 2017), some users engage in spreading WOM for other reasons. They may spread WOM in order to communicate their affective experiences of extreme satisfaction or dissatisfaction with a specific product or service (Maxham and Netemeyer, 2002). Consumers tend also to generate WOM about new and innovative products in order to be the first to provide hands-on experiences about products that are yet to be released (Goldenberg *et al.*, 2001). Finally, some might be motivated to spread positive WOM about the firm in exchange for an incentive (De Bruyn and Lilien, 2008; Haenlein and Libai, 2017).

Consumers who experience affect towards a brand view their relationship with it as a valuable one and thus desire to maintain it (Morgan and Hunt, 1994). The testing of the third hypothesis (H₃) demonstrated that the generated WOM by shoppers using Amazon's purchasing solutions stimulates their continued interaction with Amazon's purchasing tech solutions. This is particularly crucial as self-service technologies necessitate a high-involvement from consumers to keep using them (Demoulin and Djelassi, 2016; Vakulenko et al., 2018). This is particularly true in Amazon's case, as the number of shoppers who have adopted and used their purchasing solutions is growing mainly through eWom (Jøsang *et al.*, 2007; Newman, 2016).

Nonetheless, within the context of SSTs driving impulsive shopping behaviour, an undesired effect that retailers may suffer from would be the ensuing negative effect on the continued usage of such SSTs. Indeed, the fourth hypothesis (H₄) demonstrates that as customers become more impulsive in their shopping behaviour, they would tend to limit their interaction with tech-driven purchasing tools. Indeed, as discussed earlier, the sense of regret that shoppers might experience after an impulse-driven purchase is likely to occur as a result of their realising that the value of the impulse does not outweigh its perceived cost (Curwen and Park, 2014). This could lessen shoppers' future interaction and usage of such purchasing services.

From a managerial perspective, the implications are sizeable for retailers. Indeed, the findings show that while retailers' tech-driven solutions would increase shoppers' impulsiveness, and hence sales, their continued interaction with such purchasing solutions would decline over time, making the overall innovation cycle much shorter for retailers. Consequently, the latter has great implications on whether the induced increase in shoppers' impulsiveness will offset the costs related to the short time span of these solutions. Accordingly, competing retailers should be cautious in mimicking Amazon's various innovations aiming at increasing short term shoppers' impulsive behaviour. Typically, retailers and manufacturers capitalize on consumer impulsiveness to lock-in consumers and enhance consumer purchase intentions. This impulse buying behaviour can be triggered through the exposure to an external or internal stimulus that affects the decision-making process of the shoppers (Dawson and Kim, 2009). Marketing cues, such as Amazon's Dash buttons and Alexa, considered as external factors, are tailored by marketers in an attempt to lure shoppers into making a purchase by triggering impulsive behaviour.

The above is reflected in the findings of this study. Indeed, the majority of the respondents were young (39% in the 25-34 years old group), employed (67%) and married (51%), which entails

their suffering from time-poverty, looking for convenience, and being tech-savvy. While this demographic profiling implies a greater need for this group to use the-driven purchasing solutions, their usage pattern seems to be rather short as most of them (54%) have been using an Amazon SST for between 1 to 6 months. This could serve as an explanation to why Amazon has discontinued the Dash button purchasing solution after less than 3 years of its launch. Indeed, shoppers using these tech-driven purchasing solutions might merely be experimenting with the convenience that the latter devices provide, only to realize that a major objective of such services was to generate extra-sales for the service provider rather than to serve their needs. Based on the above, the findings show that tech-driven purchasing solutions built around the aim of fuelling impulsive shopping are most likely to have a short-life span. Accordingly, when designing tech-driven purchasing solutions, retailers, whether online or offline, should take into consideration the long-term relationship with their customer base. In fact, they should focus on shoppers' sought convenience rather than be solely driven by the marketing stimuli that merely aim to generate impulsive behaviour.

Conclusion and future research

This research is amongst the first to consider the long-term incremental sales effect of e-retailers' tech innovations when driven by impulsive shopping behaviour. The study discussed that such models are not sustainable in the long-run given self-inhibiting controls that shoppers would perform after regular exposure to the driving stimuli. The Amazon model encouraged the generation of WOM, and with it, the continued interaction with the tech-driven ordering solutions.

While the findings of this study are worthy to be taken into consideration when certain e-retailers' innovations are launched, the results are not free of limitations. Indeed, this research focused on a specific e-retailer and tech-driven purchase solutions in a given marketplace while not being confined to any particular product category. Future research can study other types of e-retailers and tech innovations. They can also replicate the study in other markets, alongside researching different product categories and brands. Furthermore, future research could look into cultural differences between countries in relation to impulsive behaviour, word-of-mouth usage and impact, as well as the level of emotional attachment that these culturally-different shoppers have for their purchased brands. In addition, future work could investigate the pace of adoption of

tech-driven purchasing solutions in developing countries, where traditional buying methods are well established, with face-to-face relationships still being highly valued by locals.

References

1. Abu-Khzam, F.N. and Lamaa, K. (2018), "Efficient heuristic algorithms for positive-influence dominating set in social networks", *IEEE INFOCOM 2018-IEEE Conference on Computer Communications Workshops (INFOCOM WKSHPS)*, pp. 610-615.
2. Albert, N., Merunka, D. and Valette-Florence, P. (2013), "Brand passion: Antecedents and consequences", *Journal of Business Research*, Vol. 66 No. 7, pp. 904-909.
3. Allen, N.J., and Meyer, J.P. (1990), "The measurement and antecedents of affective, continuance and normative commitment to the organization", *Journal of Occupational Psychology*, Vol. 63 No. 1, pp. 1-18.
4. Al Shehhi, A., Thomas, J., Welsch, R., Grey, I., and Aung, Z. (2019), "Arabia Felix 2.0: a cross-linguistic Twitter analysis of happiness patterns in the United Arab Emirates", *Journal of Big Data*, Vol. 6 No. 1, pp. 33.
5. Amos, C., Holmes, G. and Keneson, W. (2014), "A meta-analysis of consumer impulse buying", *Journal of Retailing and Consumer Services*, Vol. 21 No. 2, pp. 86-97.
6. Ayadi, N., Giraud, M. and Gonzalez, C. (2013), "An investigation of consumers' self-control mechanisms when confronted with repeated purchase temptations: Evidence from online private sales", *Journal of Retailing and Consumer Services*, Vol. 20 No. 3, pp. 272-281.
7. Babin, B.J., Lee, Y.K., Kim, E.J., and Griffin, M. (2005), "Modeling consumer satisfaction and word-of-mouth: restaurant patronage in Korea", *Journal of Services Marketing*, Vol. 19 No. 3, pp. 133-139.
8. Bagozzi, R.P. (1991), "Further thoughts on the validity of measures of elation, gladness, and joy", *Journal of Personality and Social Psychology*, Vol. 61 No. 1, pp. 98.
9. Bansal, H.S. and Voyer, P.A. (2000), "Word-of-mouth processes within a services purchase decision context", *Journal of Service Research*, Vol. 3 No. 2, pp. 166-177.
10. Baumeister, R.F. (2002), "Yielding to temptation: Self-control failure, impulsive purchasing, and consumer behaviour", *Journal of Consumer Research*, Vol. 28 No. 4, pp. 670-676.
11. Bitner, M.J., Brown, S.W. and Meuter, M.L. (2000), "Technology infusion in service encounters", *Journal of the Academy of Marketing Science*, Vol. 28 No. 1, pp. 138-149.
12. Bitner, M.J., Ostrom, A.L. and Meuter, M.L. (2002), "Implementing successful self-service technologies", *The Academy of Management Executive*, Vol. 16 No. 4, pp. 96-108.
13. Brakus, J.J., Schmitt, B.H. and Zarantonello, L. (2009), "Brand experience: what is it? How is it measured? Does it affect loyalty?", *Journal of Marketing*, Vol. 73 No. 3, pp. 52-68.
14. Brown, T., Barry, T., Dacin, P. and Gunst, R. (2005), "Spreading the word: Investigating antecedents of consumers' positive word-of-mouth intentions and behaviours in a retailing context", *Journal of the Academy of Marketing Science*, Vol. 33 No. 2, pp. 123-138.

15. Browne, M.W. and Cudeck, R. (1993), "Alternative ways of assessing model fit", *Sage Focus Editions*, Vol. 154, pp. 113-116.
16. Bughin, J., Doogan, J. and Vetvik, O.J. (2010), "A new way to measure word-of-mouth marketing", *McKinsey Quarterly*, Vol. 2, pp. 113-116.
17. Carmines, E. and R. Zeller. (1979), *Reliability and Validity Assessment*, Sage, Beverly Hills, USA.
18. Carroll, B.A., and Ahuvia, A.C. (2006), "Some antecedents and outcomes of brand love", *Marketing letters*, Vol. 17 No. 2, pp. 79-89.
19. Chakravarty, A., Liu, Y., and Mazumdar, T. (2010), "The differential effects of online word-of-mouth and critics' reviews on pre-release movie evaluation", *Journal of Interactive Marketing*, Vol. 24 No. 3, pp. 185-197.
20. Chamelian, R. (2016), "Applying a Marketing Approach to the Internationalization of a Technology SME: The Case of a French SaaS Vendor", *Services Marketing Quarterly*, Vol. 37 No. 4, pp. 255-271.
21. Cheung, C.M., Lee, M.K. and Rabjohn, N. (2008), "The impact of electronic word-of-mouth: The adoption of online opinions in online customer communities", *Internet Research*, Vol. 18 No. 3, pp. 229-247.
22. Cheung, M.Y., Luo, C., Sia, C.L. and Chen, H. (2009), "Credibility of electronic word-of-mouth: Informational and normative determinants of on-line consumer recommendations", *International Journal of Electronic Commerce*, Vol. 13 No. 4, pp. 9-38.
23. Chevalier, J.A. and Mayzlin, D. (2006), "The effect of word of mouth on sales: Online book reviews", *Journal of Marketing Research*, Vol. 43 No. 3, pp. 345-354.
24. Coley, A. and Burgess, R. (2003), "Gender differences in cognitive and affective impulse buying", *Journal of Fashion Marketing and Management: An International Journal*, Vol. 7 No. 3, pp. 282-295.
25. Cross, L. (2000), "Customer Intimacy: The Bonds that Go Beyond", *Graphics Arts Monthly*, Vol. 72, No. 5, pp. 68 – 71.
26. Cui, C.C., Mrad, M., and Hogg, M.K. (2018), "Brand addiction: Exploring the concept and its definition through an experiential lens". *Journal of Business Research*, Vol. 87, pp. 118-127.
27. Curran, J.M. and Meuter, M.L. (2005), "Self-service technology adoption: comparing three technologies", *Journal of Services Marketing*, Vol. 19 No. 2, pp. 103-113.
28. Curran, J.M. and Meuter, M.L. (2007), "Encouraging existing customers to switch to self-service technologies: put a little fun in their lives", *Journal of Marketing Theory and Practice*, Vol. 15 No. 4, pp. 283-298.
29. Curwen, L.G. and Park, J. (2014), "When the shoe doesn't fit: female consumers' negative emotions", *Journal of Fashion Marketing and Management*, Vol. 18 No. 3, pp. 338-356.
30. Dabholkar, P.A. (1996), "Consumer evaluations of new technology-based self-service options: an investigation of alternative models of service quality", *International Journal of research in Marketing*, Vol. 13 No. 1, pp. 29-51.

31. Dawson, S. and Kim, M. (2009), "External and internal trigger cues of impulse buying online", *Direct Marketing: An International Journal*, Vol. 3 No. 1, pp. 20-34.
32. De Bruyn, A. and Lilien, G.L. (2008), "A multi-stage model of word-of-mouth influence through viral marketing", *International Journal of Research in Marketing*, Vol. 25 No. 3, pp. 151-163.
33. Demoulin, N.T., and Djelassi, S. (2016), "An integrated model of self-service technology (SST) usage in a retail context", *International Journal of Retail and Distribution Management*, Vol. 44 No. 5, pp. 540-559.
34. Dhar, V., and Chang, E.A. (2009), "Does chatter matter? The impact of user-generated content on music sales", *Journal of Interactive Marketing*, Vol. 23 No. 4, pp. 300-307.
35. Dholakia, U.M. (2000), "Temptation and resistance: An integrated model of consumption impulse formation and enactment", *Psychology and Marketing*, Vol. 17 No. 11, pp. 955-982.
36. Diallo, M.F., and Siqueira Jr, J.R. (2017), "How previous positive experiences with store brands affect purchase intention in emerging countries: A comparison between Brazil and Colombia", *International Marketing Review*, Vol. 34 No. 4, pp. 536-558.
37. Dubé, L. and Menon, K. (2000), "Multiple roles of consumption emotions in post-purchase satisfaction with extended service transactions", *International Journal of Service Industry Management*, Vol. 11 No. 3, pp. 287-304.
38. East, R., Hammond, K. and Lomax, W. (2008), "Measuring the impact of positive and negative word of mouth on brand purchase probability", *International Journal of Research in Marketing*, Vol. 25 No. 3, pp. 215-224.
39. Fang, J., Shao, Y. and Wen, C. (2016), "Transactional quality, relational quality, and consumer e-loyalty: Evidence from SEM and fsQCA", *International Journal of Information Management*, Vol. 36 No. 6, pp. 1205-1217.
40. Farah, M.F. (2017), "Consumers' switching motivations and intention in the case of bank mergers: A cross-cultural study". *International Journal of Bank marketing*, Vol. 35 No. 2, pp. 254-274.
41. Farah, M.F. and Ramadan, Z.B. (2017), "Disruptions versus more disruptions: How the Amazon dash button is altering consumer buying patterns", *Journal of Retailing and Consumer Services*, Vol. 39 No. C, pp. 54-61.
42. Farah, M.F., Ramadan, Z.B., and Harb, D.H. (2019), "The examination of virtual reality at the intersection of consumer experience, shopping journey and physical retailing", *Journal of Retailing and Consumer Services*, Vol. 48, pp. 136-143.
43. Fedorikhin, A., Park, C.W., and Thomson, M. (2008), "Beyond fit and attitude: The effect of emotional attachment on consumer responses to brand extensions", *Journal of Consumer Psychology*, Vol. 18 No. 4, pp. 281-291.
44. Fenton-O'Creivy, M., Dibb, S. and Furnham, A. (2018), "Antecedents and consequences of chronic impulsive buying: Can impulsive buying be understood as dysfunctional self-regulation?", *Psychology and Marketing*, Vol. 35 No. 3, pp. 175-188.

45. Fornell, C. and Larcker, D.F. (1981), "Structural equation models with unobservable variables and measurement error: Algebra and statistics", *Journal of Marketing Research*, Vol. 18 No. 3, pp. 382-388.
46. Fool, M. (Feb. 24, 2018), "You Won't Believe What the Average American Spends on Impulse Buys", available at: <https://www.foxbusiness.com/markets/you-wont-believe-what-the-average-american-spends-on-impulse-buys> (accessed 12 September 2019).
47. Goldenberg, J., Libai, B. and Muller, E. (2001), "Talk of the network: A complex systems look at the underlying process of word-of-mouth", *Marketing Letters*, Vol. 12 No. 3, pp. 211-223.
48. Haenlein, M. and Libai, B. (2017), "Seeding, referral, and recommendation: Creating profitable word-of-mouth programs", *California Management Review*, Vol. 59 No. 2, pp. 68-91.
49. Harrison-Walker, L.J. (2001), "The measurement of word-of-mouth communication and an investigation of service quality and customer commitment as potential antecedents", *Journal of Service Research*, Vol. 4 No. 1, pp. 60-75.
50. Hausman, A. (2000), "A multi-method investigation of consumer motivations in impulse buying behaviour", *Journal of Consumer Marketing*, Vol. 17 No. 5, pp. 403-426.
51. Heimlich, J.E. and Ardoin, N.M. (2008), "Understanding behaviour to understand behaviour change: A literature review", *Environmental Education Research*, Vol. 14 No. 3, pp. 215-237.
52. Itani, O.S., Goad, E.A., and Jaramillo, F. (2019), "Building customer relationships while achieving sales performance results: Is listening the holy grail of sales?", *Journal of Business Research*, Vol. 102, pp. 120-130.
53. Itani, O.S., Kassar, A.N., and Loureiro, S.M.C. (2019), "Value get, value give: The relationships among perceived value, relationship quality, customer engagement, and value consciousness", *International Journal of Hospitality Management*, Vol. 80, pp. 78-90.
54. Iyengar, S.S. and Lepper, M.R. (2000), "When choice is demotivating: Can one desire too much of a good thing?", *Journal of Personality and Social Psychology*, Vol. 79 No. 6, pp. 995.
55. Japutra, A., Ekinci, Y., and Simkin, L. (2017), "Self-congruence, brand attachment and compulsive buying", *Journal of Business Research*, Vol. 99 June, pp. 456-463
56. Jeffrey, S.A. and Hodge, R. (2007), "Factors influencing impulse buying during an online purchase", *Electronic Commerce Research*, Vol. 7 No. 3, pp. 367-379.
57. Jeng, J. and Fesenmaier, D.R. (2002), "Conceptualizing the travel decision-making hierarchy: A review of recent developments", *Tourism Analysis*, Vol. 7 No. 1, pp. 15-32.
58. Jøsang, A., Ismail, R. and Boyd, C. (2007), "A survey of trust and reputation systems for online service provision", *Decision Support Systems*, Vol. 43 No. 2, pp. 618-644.
59. Karande, K. and Merchant, A. (2012), "The impact of time and planning orientation on an individual's recreational shopper identity and shopping behaviour", *Journal of Marketing Theory and Practice*, Vol. 20 No. 1, pp. 59-72.
60. Karjaluoto, H., Munnukka, J., and Kiuru, K. (2016), "Brand love and positive word of mouth: the moderating effects of experience and price", *Journal of Product & Brand Management*, Vol. 25 No. 6, pp. 527-537.

61. Khan, I., and Fatma, M. (2017), "Antecedents and outcomes of brand experience: An empirical study", *Journal of Brand Management*, Vol. 24 No. 5, pp. 439-452.
62. Kilian, T., Hennigs, N. and Langner, S. (2012), "Do Millennials read books or blogs? Introducing a media usage typology of the internet generation", *Journal of Consumer Marketing*, Vol. 29 No. 2, pp. 114-124.
63. Kwortnik Jr, R.J., and Ross Jr, W.T. (2007), "The role of positive emotions in experiential decisions", *International Journal of Research in Marketing*, Vol. 24 No. 4, pp. 324-335.
64. Lau, G.T. and Ng, S. (2001), "Individual and situational factors influencing negative word of mouth behaviour", *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration*, Vol. 18 No. 3, pp. 163-178.
65. Leong, L.Y., Jaafar, N.I. and Ainin, S. (2018), "The effects of Facebook browsing and usage intensity on impulse purchase in f-commerce", *Computers in Human Behaviour*, Vol. 78 No. C, pp. 160-173.
66. Liang, T.P. and Lai, H.J. (2002), "Effect of store design on consumer purchases: an empirical study of on-line bookstores", *Information and Management*, Vol. 39 No. 6, pp. 431-444.
67. Lin, J.S.C. and Hsieh, P.L. (2007), "The influence of technology readiness on satisfaction and behavioural intentions toward self-service technologies", *Computers in Human Behaviour*, Vol. 23 No. 6, pp. 1597-1615.
68. Loureiro, S.M.C., Gorgus, T., and Kaufmann, H.R. (2017), "Antecedents and outcomes of online brand engagement: The role of brand love on enhancing electronic-word-of-mouth", *Online Information Review*, Vol. 41 No. 7, pp. 985-1005.
69. Mathew, V., and Thomas, S. (2018), "Direct and indirect effect of brand experience on true brand loyalty: role of involvement", *Asia Pacific Journal of Marketing and Logistics*, Vol. 30 No. 3, pp. 725-748.
70. Maxham III, J.G. and Netemeyer, R.G. (2002), "A longitudinal study of complaining customers' evaluations of multiple service failures and recovery efforts", *Journal of Marketing*, Vol. 66 No. 4, pp. 57-71.
71. Melero, I., Sese, F.J. and Verhoef, P.C. (2016), "Recasting the Customer Experience in today's Omni-channel Environment", *Universia Business Review*, Vol. 50, pp. 18.
72. Meuter, M.L., Bitner, M.J., Ostrom, A.L. and Brown, S.W. (2005), "Choosing among alternative service delivery modes: An investigation of customer trial of self-service technologies", *Journal of Marketing*, Vol. 69 No. 2, pp. 61-83.
73. Meuter, M., Ostrom, A., Roundtree, R. and Bitner, M.J. (2000), "Self-service technologies: understanding customer satisfaction with technology-based service encounters", *Journal of Marketing*, Vol. 64 No. 3, pp. 50-64.
74. Mishra, H.G., Sinha, P.K. and Koul, S. (2014), "Buying Impulsive trait: An effective moderator for shopping emotions and perceived risk", *Journal of Management Research*, Vol. 14 No. 2, pp. 109.
75. Morgan, R.M. and S.D. Hunt, (1994), "The Commitment-Trust Theory of Relationship Management", *Journal of Marketing*, Vol. 5, No. 8, pp. 20-38.

76. Mrad, M. (2018), "Brand addiction conceptual development", *Qualitative Market Research: An International Journal*, Vol. 21 No. 1, pp. 18-38.
77. Mrad, M. and Cui, C.C. (2017), "Brand addiction: conceptualization and scale development", *European Journal of Marketing*, Vol. 51 No. 11/12, pp. 1938-1960.
78. Msaed, C., Al-Kwafi, S.O., Ahmed, Z.U. (2017), "Building a comprehensive model to investigate factors behind switching intention of high-technology products", *Journal of Product & Brand Management*, Vol. 26 No. 2, pp. 102-119.
79. Newman, J. (2016), "The Secret Power of Amazon's Dash Button: Not Sales, But Data", available at: <https://httpfastcompany.com/3061546/amazon-dash-buttons/> (accessed 15 March 2018).
80. Nieroda, M.E., Mrad, M., and Solomon, M.R. (2018), "How do consumers think about hybrid products? Computer wearables have an identity problem". *Journal of Business Research*, Vol. 89, pp. 159-170.
81. Nunnally, J.C. (1978). *Psychometric Theory*. (2nd ed.). New York: McGraw-Hill.
82. O'Brien, S. (Feb. 23, 2018), "Consumers cough up \$5,400 a year on impulse purchases", CNBC, available at: <https://www.cnbc.com/2018/02/23/consumers-cough-up-5400-a-year-on-impulse-purchases.html> (accessed 12 September 2019).
83. Park, E.J., Kim, E.Y., Funches, V.M. and Foxx, W. (2012), "Apparel product attributes, web browsing, and e-impulse buying on shopping websites", *Journal of Business Research*, Vol. 65 No. 11, pp. 1583-1589.
84. Park, N., Kee, K.F. and Valenzuela, M.J. (2009), "Being immersed in social networking environment: Facebook groups, uses and gratifications, and social outcomes", *CyberPsychology and Behaviour*, Vol. 12 No. 6, pp. 729-733.
85. Pickett-Baker, J. and Ozaki, R. (2008), "Pro-environmental products: marketing influence on consumer purchase decision", *Journal of Consumer Marketing*, Vol. 25 No. 5, pp. 281-293.
86. Podsakoff, P.M., and Organ, D.W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of management*, 12(4), 531-544.
87. Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y., and Podsakoff, N.P. (2003), "Common method biases in behavioral research: A critical review of the literature and recommended remedies", *Journal of applied psychology*, Vol. 88, No. 5, pp. 879-903.
88. Ramadan, Z.B. (2019). "The democratization of intangible luxury". *Marketing Intelligence & Planning*, doi.org/10.1108/MIP-11-2018-0490 [in press]
89. Ramadan, Z.B. (2019b). "Brand-brand relational moments". *Journal of Brand Management* (in press). doi.org/10.1057/s41262-019-00163-9 [in press]
90. Ramadan, Z.B., Farah, M.F., and Kassab, D. (2019), "Amazon's approach to consumers' usage of the Dash button and its effect on purchase decision involvement in the US market", *Journal of Retailing and Consumer Services*, Vol. 47, pp. 133-139.
91. Ramadan, Z.B. (2018), "The gamification of trust: the case of China's "social credit", *Marketing Intelligence and Planning*, Vol. 36 No.1, pp. 93-107.

92. Ramadan, Z.B. and Farah, M.F. (2017), "The advent of the 'social moment of truth' in online communities", *International Journal of Web Based Communities*, Vol. 13 No. 3, pp. 364-378.
93. Ramadan, Z.B., Farah, M.F. and Mrad, M. (2017), "An adapted TPB approach to consumers' acceptance of service-delivery drones", *Technology Analysis and Strategic Management*, Vol. 29 No. 7, pp. 817-828.
94. Romo, M., Sanchez-Ruiz, M.J., and Alfonso-Benlliure, V. (2017), "Creativity and personality across domains: A critical review", *Anuario de Psicología/The UB Journal of Psychology*, Vol. 47 No. 2, pp. 57-69.
95. Rook, D.W. and Fisher, R.J. (1995), "Normative influences on impulsive buying behaviour", *Journal of Consumer Research*, Vol. 22 No. 3, pp. 305-313.
96. Senecal, S. and Nantel, J. (2004), "The influence of online product recommendations on consumers' online choices", *Journal of Retailing*, Vol. 80 No. 2, pp. 159-169.
97. Shamdasani, P., Mukherjee, A. and Malhotra, N. (2008), "Antecedents and consequences of service quality in consumer evaluation of self-service internet technologies", *The Service Industries Journal*, Vol. 28 No. 1, pp. 117-138.
98. Singh, S. (2017), "Are marketers in the Gulf/Mideast region ready for the digital reawakening?", available at: <http://gulfmarketingreview.com/digital/marketers-middle-east-region-ready-digital-reawakening/> (accessed 15 March 2018).
99. Sorescu, A., Frambach, R.T., Singh, J., Rangaswamy, A. and Bridges, C. (2011), "Innovations in retail business models", *Journal of Retailing*, Vol. 87 No. 1, pp. S3-S16.
100. Spears, N. and Singh, S.N. (2004), "Measuring attitude toward the brand and purchase intentions", *Journal of Current Issues and Research in Advertising*, Vol. 26 No. 2, pp. 53-66.
101. Steenkamp, J.B. and Baumgartner, H. (2000), "On the use of structural equation models for marketing modeling", *International Journal of Research in Marketing*, Vol. 17 No. 2, pp. 195-202.
102. Strack, F., and Deutsch, R. (2006), "Reflective and impulsive determinants of consumer behaviour", *Journal of Consumer Psychology*, Vol. 16 No. 3, pp. 205-216.
103. Sun, T. and Wu, G. (2011), "Trait predictors of online impulsive buying tendency: A hierarchical approach", *Journal of Marketing Theory and Practice*, Vol. 19 No. 3, pp. 337-346.
104. Trusov, M., Bucklin, R.E. and Pauwels, K. (2009), "Effects of word-of-mouth versus traditional marketing: findings from an internet social networking site", *Journal of Marketing*, Vol. 73 No. 5, pp. 90-102.
105. Turri, A.M., Smith, K.H., and Kemp, E. (2013), "Developing affective brand commitment through social media", *Journal of Electronic Commerce Research*, Vol. 14 No. 3, pp. 201-214.
106. Vakulenko, Y., Hellström, D., and Oghazi, P. (2018), "Customer value in self-service kiosks: a systematic literature review", *International Journal of Retail and Distribution Management*, Vol. 46 No. 5, pp. 507-527.

107. Van Doorn, J., Lemon, K.N., Mittal, V., Nass, S., Pick, D., Pirner, P. and Verhoef, P.C. (2010), "Customer engagement behaviour: Theoretical foundations and research directions", *Journal of Service Research*, Vol. 13 No. 3, pp. 253-266.
108. Verplanken, B. and Herabadi, A. (2001), "Individual differences in impulse buying tendency: Feeling and no thinking", *European Journal of Personality*, Vol. 15, No. S1, pp. S71-S84.
109. Wangenheim, F. and Bayon, T. (2004), "Satisfaction, loyalty and word of mouth within the customer base of a utility provider: Differences between stayers, switchers and referral switchers", *Journal of Consumer Behaviour*, Vol. 3 No. 3, pp. 211-220.
110. Wetzer, I.M., Zeelenberg, M. and Pieters, R. (2007). "Never eat in that restaurant, I did!": Exploring why people engage in negative word of mouth communication", *Psychology and Marketing*, Vol. 24 No. 8, pp. 661-680.
111. Williams, R., Stewart, J. and Slack, R. (2005), *Social learning in technological innovation: Experimenting with information and communication technologies*. Edward Elgar Publishing.
112. Winchsomb, T., Massey, S. and Beastall, P. (2017), "Review of latest developments in the Internet of Things", available at: https://httpofcom.org.uk/data/assets/pdf_file/0007/102004/Review-of-latest-developments-in-the-Internet-of-Things.pdf/ (accessed 15 March 2018).
113. Xu, Y., Li, Y. and Zhang, F. (2013), "Pedestrians' intention to jaywalk: Automatic or planned? A study based on a dual-process model in China", *Accident Analysis and Prevention*, Vol. 50, pp 811-819.
114. Zgheib, P.W. (2017), "Advertising Deceit: Manipulation of Information, False Advertising, and Promotion", *In Advertising and Branding: Concepts, Methodologies, Tools, and Applications* pp. 1482-1494. IGI Global.

Table 1: General statistics and exploratory factor analysis

	Mean (S.D.)	Cron- bach Alpha	AVE	Exploratory Factor Analysis loading				
				1	2	3	4	
<p><i>Impulsiveness:</i></p> <p>- I often buy things spontaneously.</p> <p>- I often buy things without thinking</p> <p>- "I see it, I buy it" describes me</p> <p>- I buy things according to how I feel at the moment</p> <p>- Sometimes I am a bit reckless about what I buy</p>	<p>5.20 (1.72)</p> <p>4.33 (2.05)</p> <p>4.45 (2.09)</p> <p>4.77 (1.86)</p> <p>4.52 (1.99)</p>	.92	0.73	.890	.865	.847	.839	.833
<p><i>Word of Mouth:</i></p> <p>- I would recommend the Dash button to someone who seeks my advice</p> <p>- I encourage friends and relatives to do business with Amazon through the Dash button</p> <p>-I say positive things about Amazon Dash button to other people</p>	<p>6.18 (1.02)</p> <p>5.97 (1.21)</p> <p>6.12 (1.01)</p>	.85	0.62	.757	.801	.797		
<p><i>Continued Interaction:</i></p> <p>- Given that the transaction I intend to perform is available on the Amazon Button, I will definitely use this option</p> <p>- Given that the transaction I intend to perform is available on the Dash Button, I will definitely continue to use this self-service option</p> <p>- When I need to perform shopping transactions, I would actively seek out this self-service shopping service</p>	<p>6.05 (.998)</p> <p>5.98 (1.05)</p> <p>5.94 (1.12)</p>	.83	0.59		.793	.701	.805	

<i>Affective Experience with Brands bought through the Dash Button</i>					
<i>- The brands I buy through the Dash button induce feelings and sentiments</i>	5.59	(1.36)	.82	0.67	.865
<i>- The brands I buy through the Dash button are emotional brands</i>	5.12	(1.64)			.777

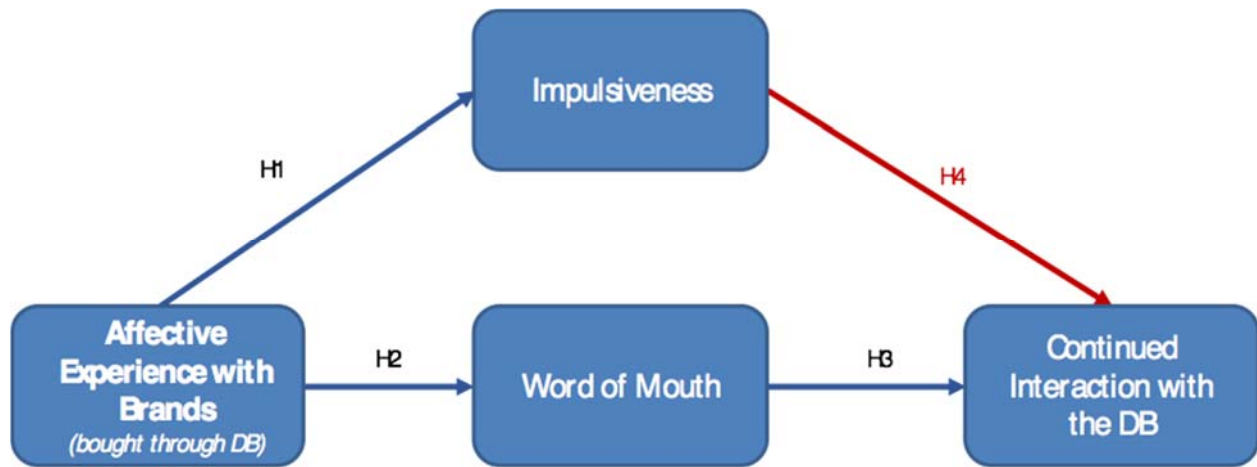
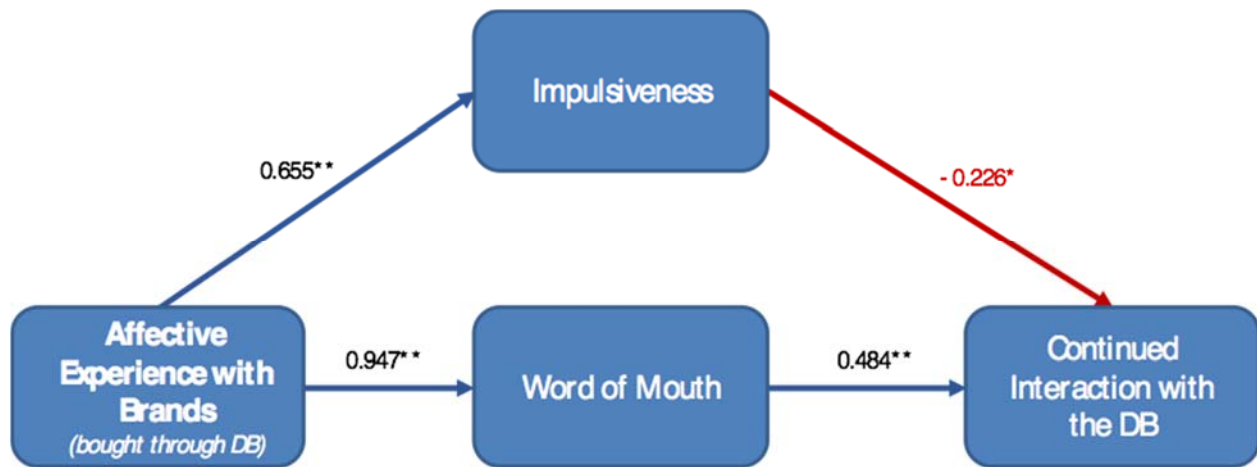


Figure 1: The Conceptual Model



**significant at the $p < 0.001$ level

*significant at the $p < 0.01$ level

Figure 2: Model Estimation