



Lebanese American University Repository (LAUR)

Post-print version/Author Accepted Manuscript

Publication metadata:

Title: Amazon's approach to consumers' usage of the Dash button and its effect on purchase decision involvement in the U.S. market

Author(s): Ramadan, Zahy B.; Farah, Maya F. and Kassab, Danielle

Journal: Journal of Retailing and Consumer Services

DOI: <https://doi.org/10.1016/j.jretconser.2018.11.018>

How to cite this post-print from LAUR:

Ramadan, Z. B., Farah, M. F., & 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, DOI: <https://doi.org/10.1016/j.jretconser.2018.11.018>/ Handle: <http://hdl.handle.net/10725/11334>

© 2019

This Open Access post-print is licensed under a Creative Commons Attribution-Non Commercial-No Derivatives (CC-BY-NC-ND 4.0)



This paper is posted at LAU Repository  
For more information, please contact: [archives@lau.edu.lb](mailto:archives@lau.edu.lb)

# **Amazon's approach to consumers' usage of the Dash button and its effect on purchase decision involvement in the U.S. market**

## **Abstract**

The Amazon Dash button is a technological innovation that allows consumers to re-order products at the press of a button. This study aims to test (a) the effects of the relational attributes of retailer's trust and love on the continued interaction with the Dash button, and (b) the effects of continued interaction on shoppers' purchase decision involvement. The findings of this study indicate that the Dash button is a hard to replicate strategic tool as it entails consumers to have established a strong emotional and trustworthy relationship with the retailer beforehand.

**Keywords:** *Amazon; Dash Button; SST; Retailing; Consumer-Retailer Relationship; Purchase Involvement*

## **1. Introduction**

Technology has been expanding exponentially in the past few decades and is being integrated at multiple levels in business operations and consumers' daily lifestyle (Farah and Ramadan, 2017). Companies that succeed in integrating advanced technological solutions in servicing the end consumer typically receive positive feedback compared to others' who failed to do so (Brun et al., 2014). For instance, retailers such as Amazon have been successful in introducing innovative tools to their business strategies so as to sustain customer satisfaction and gain long lasting clientele (Ramaseshan et al., 2015). Indeed, some brands are increasingly seeking to reach their targeted shoppers through retailers' advanced technologies. Furthermore, online retailers are being more and more solicited by brands since customers can nowadays easily connect and buy their products that are featured on the retailers' websites and mobile applications (Mukherjee and Nath, 2007). For example Amazon, one of the top online retailers worldwide, allows customers to shop effortlessly and receive their desired product in a short period time (Oxford, 2013). Amazon's focus on delivering a unique experience to consumers by continuously acquiring top technological innovations has been contributing to the remarkable success of the company (Farah and Ramadan, 2017). Various technological tools are regularly introduced by Amazon, and each tool has a specific and meaningful purpose that relates to the consumers' differing shopping behaviors. In fact, an increasing number of customers is using the latter retailer as their preferred source of shopping; this trend has been the result of a constant integration of technological advances into Amazon's ordering platform (Curtis, 2013). Examples of such technological and innovative ordering techniques include AmazonFresh, Amazon PrimeAir, Amazon PrimeNow and various others (Kantor and Streitfeld, 2015).

The Dash button is one of the latest innovations launched by Amazon in March 2015. The Dash button allows users to remotely order an associated household brand by the press of a button. A button costs \$4.99 but comes pre-loaded with that same amount to be deducted on the first order; hence, it is virtually free. The button, a wireless USB-sized device, embeds an adhesive that allows it to be mounted on any hard surface (Hockett, 2015). Once pressed, a notification confirming the order appears on the mobile app of the Amazon Prime user. The item is subsequently delivered to the customer's set address (Gerpott and May, 2016).

Despite the obvious success of the device, Amazon restricts the disclosure of data related to the number of Dash button users since its launch, and has only been sporadically communicating

the growth in orders performed through this device. Indeed, in just a year after its launch, Amazon reported a 650% increase in the number of orders through this self-service technology (SST) (Rao, 2017). Furthermore, Amazon has recently expanded the geographical span of this device to the UK and French markets, and has reported a rapid and substantial growth in the number of brand partners, which hints to the value of these devices (Business Insider Intelligence, 2016).

Critics contend that the Amazon Dash button can cause discontinued interaction between the consumer and the retailer as this SST excludes interpersonal communication (Curran and Meuter, 2005). Other research demonstrate that the continuous interaction with the Dash button increases the frequency and impulsiveness in using this tool (Farah and Ramadan, 2017).

Consumers' trust and affective feelings towards the retailer cannot easily be competed with as their combination has a positive effect on the shopper's degree of engagement with the retailer (Mukherjee and Nath, 2007). Specifically, in the context of the Dash button, it is expected that consumers would have high trust and attachment levels to the retailer providing this tool, hereby Amazon, which could reinforce the continued interaction with this particular reordering device. This paper argues that given a certain level of trust and affective feelings towards the retailer, self-motivating reordering tools could reinforce the feeling of purchase decision involvement. In sum, this study aims to test on one hand the effects of the relational attributes of retailer's trust and love on the continued interaction with Amazon's latest tech-innovation, hereby the Dash button, and on the other hand, the effects of the latter on shoppers' purchase decision involvement level.

## **2. Conceptual Framework**

### *2.1 The effects of the retailer's trust on the continuous interaction with the Dash button*

The lack of trust in retailers has been increasingly rising due to external factors; hence, consumer trust became a fundamental need for retailers so as to sustain long term success (Brun et al., 2014). Indeed, maintaining a fair level of customer trust is an essential component that has been used and studied in various business contexts (Viktoria Rampl et al., 2012).

Satisfaction is the starting point of trust to a certain retailer since a satisfied shopper will eventually build positive experience, trust and probably loyalty (Edward and Sahadev, 2011). To attain and maintain consumer trust, brands should focus on choosing the ideal retailer since the consumer-retailer relationship is essential for perfecting the ultimate brand experience (Thorbjørnsen et al., 2002). When retailer trust is acquired, the consumer will not feel the need to

constantly review the benefits of the usually purchased product. Consumer satisfaction is hence met when the experience with the product meets or even surpasses his/her expectations (Wu et al., 2014); thus increasing retailer trust. This is especially important and effective for online consumers since their dependence on retailers is more significant when it comes to making a decision about certain brands (Arnott, 2007). If the perceived value of the service provided by retailers is high, the shoppers' overall experience will be positively affected (Chen and Dibb, 2010). In fact, one of the main objectives behind Amazon's launching the Dash button is to provide their prime users a convenient way to reorder products from their online platform.

Some might argue that consumers might be loyal to some retailers due to lack of better alternatives. Indeed, consumers' repeated purchases do not equate customer loyalty, as relying frequently on the same retailer does not always indicate customer satisfaction (Dagger and David, 2012). With an ever increasing number of online retailers providing various options for easier purchase processes via mobile apps, websites, technological advances, and online wallets, it has become relatively easy to find a consumer-friendly solution that offers a convenient shopping experience (Chen and Dibb, 2010).

In the past decades, firms have become customer-centric, relying heavily on marketing to provide an unmatched brand experience to lessen consumer price sensitivity (Wu *et al.*, 2014). In addition, there is a very high level of competition due to the increasing number of online retailers in the market. Most companies acknowledge that shoppers are commonly sensitive to increasing costs; hence, retailers attempt to provide a superior shopping experience with reasonable costs resulting in customer satisfaction (Lacey, 2007). With the abundance of online retailers, there are virtually no significant switching costs that impede customers from churning (Agrawal, 2017). This rationale reflects the necessity for retailers to come up with differentiated services and tools to maintain customer satisfaction and trust at their highest.

Trust is largely affected by how customers are receiving the service; whether face to face or through innovative tools and interfaces (Arnott, 2007). Due to the absence of the physical presence between the buyer and the seller in online platforms, online retailers prioritize their relationship with their consumers by focusing on sustaining their trust through technological tools (Mukherjee and Nath, 2007). An example of the impact of technological tools on retailer trust is self-checkout services found in supermarkets; these services improve customer experience

whereby good service quality leads to satisfaction and thus, repeated purchase (Orel and Kara, 2014). Continuous interaction is hence established using such SSTs.

SSTs are defined as technological innovations and tools used independently by consumers where no external assistance is present (Curran and Meuter, 2005; (Larivière et al., 2017)). These technologies are crucial for retailers yearning to provide customers with an up-to-date shopping experience that exceeds their expectations by seeking exceptional improvements to the delivery of their goods and services (Bagdare and Jain, 2013). Nowadays, the delivery of products and services greatly depends on transactions that are facilitated by efficient technological developments. Through an effective SST system, firms are allowing their customer to play a new role in the area of products and services acquisition (Chen et al., 2009). For instance, customers can use mobile phone applications to check their bank accounts and conduct various online transactions. While SST operations aim to deliver superior customer service and to provide financial benefits for the company, even so often it can be difficult to implement and manage (Ramaseshan et al., 2015). Hence, in order for an SST system to be effective, firms should be ready to provide the basic mechanisms, and should always be abreast of improvements. Therefore, it is important for a firm to have a clear strategy before adopting such technologies (Lee, 2015).

The Amazon Dash button has been in high demand by consumers who have great trust in the retailer itself (Smith, 2016). Indeed, consumers' trust and reliance on Amazon are likely to increase the demand and interaction with this tool by prime users and ultimately by shoppers at large. The latter reflects how trust in retailers is likely to affect consumer interaction with technological innovations. Therefore, the researchers hypothesize:

*H<sub>1</sub>*: The higher the consumer's trust in the retailer (Amazon), the higher the continuous interaction with the Dash button.

## *2.2 The effects of retailers' love (affective feeling) on the continuous interaction with the Dash button*

Consumers express affection and attachment for retailers with which they feel at ease, making it difficult for them to shift to other competing retailers (Thorbjørnsen et al., 2002). Since consumer love is defined as a psychological state in which the consumer expresses deep affection, related

decision-making becomes more intuitive (Ortiz and Harrison, 2011) as the consumer would reach a sense of commitment towards the retailer (Choi and Choi, 2014).

Consumers experience great affection towards online retailers and have their own particular way of showing their brand devotion (Roy et al., 2014). For instance, they post online articles, create blogs, and even join certain chat rooms in order to positively encourage other potential customers. Moreover, word of mouth is much faster and far reaching with online shoppers, since a large number of potential individuals willing to bond with a given retailer can be targeted (Blazevic et al., 2013).

In addition, retailer love leads to the formation of various feelings, boosting consumer confidence, motivation, and assertiveness (Farah and Ramadan, 2017). Typically, consumers would make decisions more efficiently when their reliance on the retailer is enforced by a strong connection which is an emotional attachment expressed in the form of love (Kim et al., 2010). This motivation would trigger an impulsive feeling that shortens the consumer journey, thus making it faster and less time consuming. Particularly, the Amazon Dash button has been introduced to facilitate and encourage the prompt re-ordering process for shoppers (Farah and Ramadan, 2017).

Every so often, retailers have to deal with consumers who opt not to patronize a single retailer. Hence, retailers heavily rely on their prime consumers and those who have experienced service delight to the extent of love (Moussa and Touzani, 2013) in order to sustain the usage of their services. For an optimal consumer experience, retailer love is essential in building a long-lasting relationship with the consumer. This feeling entails that consumers become emotionally attached to the retailer creating stronger connections with the services provided (Farah and Ramadan, 2017). This affective relationship could lead customers to maintain their interaction with the retailer and its services. This aspect is crucial since it builds a durable bond between the retailer and the consumer (Thorbjørnsen et al., 2002), leading to an emotional union between the two (Vesel and Zabkar, 2010).

Prime Amazon users have found the Dash button to be very useful as it adds convenience to their purchasing process. Indeed, Amazon has had a long streak of favorable feedback on the launches of its various new services mainly driven by its customers' affective feeling (Burke, 2002; Farah and Ramadan, 2017). Accordingly, the researchers hypothesize:

*H<sub>2</sub>*: The higher the consumer's love to the retailer (Amazon), the higher the continuous interaction with the Dash button.

### *2.3 The effects of the continuous interaction with the Dash button on consumer's purchase involvement*

In order to understand the importance of purchase involvement, its definition should be briefly tackled from a universal perspective. Numerous descriptions have been associated to involvement and many have linked this phenomenon to a sense of motivation and interest (Bagdare and Jain, 2013). Involvement is a psychological state whereby an individual has the urge to be part of a certain activity or a certain product or retailer; also defined as an emotional connection to another individual, which is based on ego (Bian and Moutinho, 2011). More specifically, product involvement reflect the degree to which the consumer shows interest and dedication towards any of the latter and the level of interaction the consumer expresses (Bian and Moutinho, 2011; Liu et al., 2018). For the purpose of maintaining continuous interaction, retailers are embracing new technologies to facilitate complex activities. The digital world is encouraging the consumer to be more involved with technological devices, thus creating new marketing experiences that do not require direct participation (Ramadan et al., 2017; Ramadan and Farah, 2017). These devices are expected to become core elements of retail involvement within the coming years (Lee, 2015).

As discussed in the previous hypotheses, continuous interaction reveals a sense of connection with a specific brand or product or to retailers offering a variety of products. Consequently, purchase decision involvement is characterized as the level of assertive interest a consumer has when making a decision before and after the purchase of the product (Slama and Tashchian, 1985). The consumer is in a stage where he/she is self-aware of the choices being made before completing a purchase; it shows how consumers are past the doubting phase and are fully conscious and assertive of the actions being taken (Slama and Tashchian, 1985).

Through advanced technological tools, continued interaction has helped reinforce purchase decisions (Sashi, 2012; Ramadan et al., 2018). For instance, SSTs have increased the interaction the consumer has with the company, thus emphasizing decision making and purchase involvement. These technologies have garnered positive feedback as they have enabled many consumers to get easy access to goods and services (Castro et al., 2010). Therefore, firms are currently working on the integration of such SSTs as they ensure countless benefits for both the consumer and the firm



itself (Ramaseshan et al., 2015). Consequently, consumers are interacting in a much easier manner with retailers with the help of such innovative tools (Park and Kim, 2003). Moreover, interacting with an online retailer has been simplified with the help of these self-motivating tech-advances, which allowed easy access to information (Park and Kim, 2003). For example, the usage of SSTs such as automated teller machines (ATM), online wallets, and mobile applications pertaining to a certain retailer or brand, enforces consumer connection and involvement with the latter (Chen et al., 2009). The choice of getting and using the tool expresses on its own the amount of purchase decision involvement the consumer is experiencing (Curran and Meuter, 2005). On the other hand, opposing views claim (e.g. Cheung and To, 2011) that the incorporation of SSTs in the delivery of services decreases purchase decision involvement, as consumers are processing less information before making a purchase, leading to a shorter decision-making process.

Other researchers (e.g. Martin et al., 2011) refute this particular direction by arguing how SSTs actually lead to a heightened purchase involvement. Indeed, by continuously interacting with the SST, hereby the Amazon Dash button, the customer becomes more involved with the purchase being made (Leo et al., 2011). In fact, whenever consumers interact with the initially chosen Dash button linked to a specific brand, they are actually reaffirming their product choice and purchase decision involvement with every press of a button. Hence, every use of the Amazon Dash button becomes by its own an actual validation of the presence of constant and sustained conscious decision-making. This will be based on the shoppers' interest and motivation which, as defined earlier, relates to the involvement with the purchase. Consequently, the researchers hypothesize:

*H<sub>3</sub>*: The higher the continuous interaction with the Amazon Dash button, the higher the consumer purchase involvement

### **INSERT HERE: Figure 1: The Conceptual Model**

Accordingly, the aim of this research is to study whether relational attributes with the retailer, namely trust and love, would enhance the level of continuous interaction with the Dash button, and how the latter affects shoppers' purchase decision involvement level.

### **3. Research Methodology**

Data was collected from U.S. users of the Amazon Dash Button. An Internet survey was devised and the questionnaire was administered through Qualtrics, a U.S. data collection agency. To avoid issues related to common method variance, the respondents were firstly assured that their responses would be kept anonymous (Malhotra et al., 2006). Furthermore, face validity was checked with a number of respondents during the pilot stage, whereby seven respondents were asked to give their feedback on the size of the research instrument, and the extent to which the questions are clear and easy to understand. No particular concern nor alarming patterns were detected. Exploratory and confirmatory factor analyses were conducted to test discriminant validity. 630 surveys were completed and returned by the respondents accounting for an incidence rate of 15%. SPSS 24 and LISREL 8.8 were used for data analysis.

#### *3.1 Measures*

The scales adopted were all extracted from the extant literature. Retailer trust was measured through the adoption of 3 items from Lacey's (2007) and Morgan and Hunt's (1994) trust scale, initially based on the 9-item Dyadic Trust Scale devised by Larzelere and Huston (1980). The items allow consumers to rank retailer trust in terms of integrity, honesty and trustworthiness by allowing for a response on a 7-point gradation of 1 (strongly disagree) to 7 (strongly agree).

Two items were adopted from Thorbjørnsen et al. (2002) to assess shoppers' level of retailer love. The original scale was built upon the work of Fournier (1998), which consisted of 33 items. Nonetheless, as this study focuses solely on the study of the love/passion construct, only the related items were used. The scale utilizes a 7-point 'strongly disagree-strongly agree' Likert scale measuring the attraction of, devotion to and overall exclusiveness of the retailer itself (Farah and Ramadan, 2017).

Respondents were then asked to assess their likelihood to continue interacting with the Amazon Dash button on a 3-item scale based upon Shamdasani et al. (2008). These 7-points Lickert scales were adapted from the original intention-to-use scale devised by Dabholkar (1996). The continuous interaction construct focused on the likelihood of the Amazon Dash button being actively used.

Respondents were subsequently asked to indicate their agreement with an adopted 2-item, 7-point Likert scale that assesses their individual level of purchase involvement. This scale was

based upon Mittal's (1995) modified purchase decision involvement scale, which was based upon his original 5-item scale (Mittal, 1989). This scale is highly regarded by marketing researchers as it integrates cognitive and affective elements of consumer involvement with the retailer at hand since it assesses consumer care, perception of differences, choice, and concern with regards to the purchase decision (O'Cass and Choy, 2008; Kim and Sung, 2009).

The final section of the questionnaire consisted of a series of 4 demographic questions related to: the respondent's age, gender, marital status, and occupation.

### *3.2 Sample Profiling*

Data collection was conducted through a web survey distributed to Amazon prime users of the Dash Button. The gender distribution was as follows: 55% female and 45% male. The largest age group from which data was collected was those between 25-34 years old (42%); these were followed by the 35-44 age group (23.5%), 18-24 group (13.3%), 45-44 group (11%), 55-64 group (8.2%), and 65 years or above (2%). The vast majority of the responses came from married shoppers (54.6%), followed by singles (37.1%), divorced (4.8%), and others (3.5%). The respondents were mostly employed (69.1%), followed by the unemployed segment (10.8%), the self-employed category (10.3%), and others including students (9.8%). The surveyed customers were all users of the Dash button; however, they had different patterns of usage of this device, hence different levels of usage since its launch in 2015: at the time of the study, 74% of the respondents have been using the Amazon Dash button for less than 6 months, while 17.9% have been using the device between 7 and 12 months. Only 8.1% of the sampled customers have been using the button for more than a year.

## **4. Analysis and constructs validation**

The constructs adopted in the research instrument were based on multi-item scales. Table 1 shows the scales, the mean, standard deviation, AVE, and the Cronbach's  $\alpha$  tests for reliability. Cronbach's alpha, which is principally considered to be a conservative estimate of a construct's reliability (Carmines and Zeller, 1979), recorded an acceptable value indicating adequate internal consistency (Nunnally 1978).

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

Exploratory factor analysis was first used to test discriminant validity that reflects the degree to which measures of two constructs are empirically distinct (Bagozzi, 1991). Support for discriminant validity was guaranteed by all items loading effectively with no cross-loading, (see table 1). The latter validity was also tested through the AVE method (Bagozzi, 1981): this technique entails that the construct is considered empirically distinct if the average variance extracted (AVE) by the items related to that construct is greater than the construct's shared variance with other constructs (Fornell and Larcker, 1981). The AVE for each construct in this research turned out to be greater than the minimum threshold of .50; this provided evidence of discriminant validity. The data was also checked for common method bias through conducting the common latent factor method test. No large differences between the standardized regression weights (greater than the 0.200 threshold) were observed (Podsakoff et al., 2003).

The data was then tested for validity through LISREL 8.8 (Jöreskog and Sörbom, 1993) using confirmatory factor analysis. The resulting indices were chi-square ( $\chi^2$ ) = 103 (29 degrees of freedom (d.f.)) and *p-value*=0.00. The model also had good fit indices: *NFI*=0.989, *IFI* = 0.992, *CFI*= 0.992, *GFI*= 0.970, and *RMSEA*=0.0617.

## **5. Model Estimation and empirical research findings**

All the hypotheses were statistically significant and supported. Upon the model estimation, the findings showed that all linkages were significant. The estimated standardized path coefficients of the constructs investigated are depicted in figure 2 and showed to be significant. 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) were used to assess the fit of the model. GFI, which assesses the degree to which the reproduced correlation matrix based on the specified model accounts for the original sample correlation matrix, scored higher than the recommended threshold level of 0.90. Furthermore, CFI, NFI and IFI were all found to have acceptable fits for their indices (Steenkamp and Baumgartner, 2000). Lastly, the RMSEA came at 0.060, which was deemed as suitable since a value of 0.08 typically represents a reasonable error of approximation for this absolute measure of fit (Browne and Cudeck, 1993). In sum, the estimation of the model showed a good fit with  $\chi^2=106$  (31), *p-value*=0.00, *NFI*=0.989, *IFI*=0.992, *CFI*= 0.992, *GFI* = 0.969, and *RMSEA* = 0.060 (see figure 2).

## INSERT HERE: Figure 2: Model Estimation

As hypothesized, retailer's trust had a direct impact on continued interaction ( $H_1: \beta = .500, p < .001$ ). Retailer's love had also a significant positive effect on continued interaction ( $H_2: \beta = .191, p < .01$ ). Continued interaction had also as expected a significant effect on purchase involvement ( $H_3: \beta = .512, p < .001$ ). In sum, all the research hypotheses tested were statistically supported.

### 6. Discussion of the findings and implications

Nowadays, consumers are finding it easier to deal with online retailers and look for products and brands (Brynjolfsson et al., 2013). Technological innovations launched by retailers, such as the Amazon Dash button, are further facilitating this process (Butler, 2016). This research reflects on how consumers' trust and love for the retailer, hereby Amazon, have reinforced the continuous usage and interaction with the technological device proposed by this retailer. It demonstrates that the continuous usage of this SST affects positively the level of purchase involvement that the customers exhibit.

The findings gathered through this empirical study indicate how technological advances are re-affirming the continuous interaction consumers are having with retailers. When a consumer trusts the retailer, he/she becomes more prone to accept technological advances provided by the latter. Furthermore, the emotional attachment the shopper has to the retailer is essential for the adoption of any technological device that enforces the connection the consumer has with the retailer. Hence, this study shows that the consumer trust and love to Amazon are key factors in the success of the Amazon Dash button. Furthermore, the continuous use of the Dash button seems to reinforce the consumer purchase involvement.

From a scholarly perspective, this paper filled a sizeable gap in the literature as it tackled the effects of technological re-ordering tools offered by progressive online retailers. Customers' trust and emotional predisposition towards these retailers are at the base of using such devices. All proposed hypotheses were supported. The trust and love factors proved to be important antecedents of a continuous interaction with the retailer's Dash button. This continuous interaction with the

tech device led to a higher purchase involvement, reinforcing the feel of the shoppers to have taken the right choice.

From a managerial perspective, the implications of this study are also significant. As discussed in the literature review, consumer interaction with tech tools has been studied in various industries. The findings of this research show that this particular interaction has altered the consumer journey, while at the same time refining shoppers' purchase involvement. Indeed, the usage of the Amazon Dash button has reduced several stages on the path to purchase. With the help of this technological device, consumers are foregoing the first moment of truth, which typically takes place at the physical store. Retailers, whether operating online or offline, are all working towards building a competitive advantage as they increasingly face fierce competition in the marketplace (Lee, 2015). Furthermore, retailers are trying to differentiate themselves with added value services and additional appealing attributes through the launching of new technological solutions. The Amazon Dash button seems to be a strategic technological tool that will be hard to compete with. Indeed, the challenge raised by this tech innovation is high for competing retailers, who will need to follow suit in incorporating similar advanced technologies into their strategies. This integration of innovations into their operations is however not sufficient as it will require consumers to have established a strong emotional and trustworthy relationship with the retailer beforehand. When the latter bond is properly established, retailers who lack such technologies should then develop and launch innovative and competitive technological tools. In sum, retailers should work at different strategic levels, from the most basic ones where they establish an unbreakable relationship with their clients, to more advanced levels whereby they integrate technological improvements into their business strategies. One might argue that competing retailers might easily copy Amazon's Dash button, causing this retailer to lose its exceptional lead. Nevertheless, the Dash button is a unique tool, which has its own inherent success factors that are intertwined with those of Amazon, and which will be difficult to duplicate given its unique features. Finally, this study demonstrates that every time the customer shops through the Amazon Dash button he/she is reconfirming his/her initial purchase choice, hence reinforcing purchase involvement with the chosen product. Indeed, product involvement is closely related to a consumer's interest and dedication towards a given purchase. As discussed in the literature review, purchase involvement reflects the level of assertive decision making, whereby the consumer is self-aware of the choice being made before confirming a purchase. Hence, this study

implies that each time a consumer uses the Dash button; he/she is confirming their conviction of doing the right product choice. Remarkably, wherever the tool is placed in the house and every time the consumer interacts with the button, more will ensue.

## **7. Limitations and future research**

Although it provides a detailed view of the factors ensuring the continuous interaction with a technological tool introduced by an online retailer, this study is not without limitations. First, the study focused on a U.S. sample and researched specifically one tech tool, namely the Amazon Dash button. Second, the research did not study any particular product category, which might have differing effects on shoppers' involvement. Thirdly, as the majority of the users studied in this research are new adopters who started using the Dash button less than 6 months ago, the results are valid only for the short-term period (i.e. less than one year from the date of adoption). Accordingly, future research could tackle different geographical customer markets alongside different technological devices or could study distinctive products sold through the Dash button and their ensuing effects on consumers. Furthermore, future research could tackle how continued usage differently affects involvement over time.

## **8. Conclusion**

The Amazon Dash button has revolutionized the way retailers look for new competitive advantages. Typically, physical stores have always had an advantage over online retailers given the physical experience that the shopper can enjoy and which is usually difficult to imitate on the online platform (Sunil, 2015). Nevertheless, through the Dash button, Amazon has replicated in its own way the physical retail experience by emulating a store environment. Indeed, this new "home-store" environment, whereby the customer is surrounded by a tangible representation of his/her preferred brands, allowed Amazon to counter one of the major disadvantages related to operating purely online.

The findings of this study demonstrate how the continuous interaction with a technological tool, specifically the Amazon Dash button fixed in one's own home, enhance the consumer purchase decision involvement. The findings also reflect how a consumer trust and affective feeling towards the retailer act as a barrier to entry to other retailers who might consider launching a similar device. Therefore, competing online retailers should aim to build strong relationships

with their shoppers before considering to replicate the Amazon Dash button's case, especially since this device is a new technological breakthrough in the world of retail. Furthermore, as retailers start integrating such new technological innovations, offline retailers will need to take quick actions to join this new competition.

## References

1. Agrawal, A.J. (2017), "5 ways technology is changing Ecommerce", available at: [www.entrepreneur.com](http://www.entrepreneur.com)
2. Arnott, D.C., (2007), "Trust—current thinking and future research", *European Journal of Marketing*, Vol. 41 No. 9/10, pp. 981-987.
3. Bagdare, S. and Jain, R. (2013), "Measuring retail customer experience", *International Journal of Retail & Distribution Management*, Vol. 41 No. 10, pp. 790-804.
4. Bagozzi, R.P. (1981), "Attitudes, intentions, and behavior: A test of some key hypotheses", *Journal of Personality and Social Psychology*, Vol. 41 No.4, pp. 607-627.
5. Bagozzi, R.P. (1991), "Structural equation models in marketing research: Advanced research techniques", American Marketing Association: Chicago, pp. 335-379.
6. Bian, X. and Moutinho, L. (2011), "The role of brand image, product involvement, and knowledge in explaining consumer purchase behaviour of counterfeits: Direct and indirect effects", *European Journal of Marketing*, Vol. 45 No. 1/2, pp. 191-216.
7. Blazevic, V., Hammedi, W., Garnefeld, I., Rust, R.T., Keiningham, T., Andreassen, T.W., Donthu, N. and Carl, W. (2013), "Beyond traditional word-of-mouth: An expanded model of customer-driven influence", *Journal of Service Management*, Vol. 24 No. 3, pp. 294-313.
8. Browne, M.W. and Cudeck, R. (1993), "Alternative ways of assessing model fit", in Bollen, K. A. and Long, J.S. (Ed.), *Testing structural equation models*, Beverly Hills, CA, pp. 136-162.
9. Brun, I., Durif, F. and Ricard, L. (2014), "E-relationship marketing: A cognitive mapping introspection in the banking sector", *European Journal of Marketing*, Vol. 48 No. 3/4, pp. 572-594.
10. Brynjolfsson, E., Hu, Y.J. and Rahman, M.S. (2013), "Competing in the age of omnichannel retailing", *MIT Sloan Management Review*, Vol. 54 No. 4, pp. 23.
11. Burke, R.R. (2002), "Technology and the customer interface: What consumers want in the physical and virtual store", *Journal of the Academy of Marketing Science*, Vol. 30 No. 4, pp. 411-432.
12. Business Insider intelligence (Oct. 26, 2016), "Amazon Dash button orders are through the roof", available at: [www.businessinsider.com/amazon-dash-button-orders-rise-400-2016-10](http://www.businessinsider.com/amazon-dash-button-orders-rise-400-2016-10)
13. Butler, S. (2016), "As Amazon takes on the UK grocery market, can it deliver a profit?", available at: [www.theguardian.com](http://www.theguardian.com)
14. Carmines, E. G. and Zeller, R. A. (1982), *Reliability and Validity Assessment*, Beverly Hills, CA.



15. Castro, D., Atkinson, R.D. and Ezell, S.J. (2010), "Embracing the self-service economy", Social Science Research Network. Rochester, Rochester.
16. Chen, J. and Dibb, S. (2010), "Consumer trust in the online retail context: Exploring the antecedents and consequences", *Psychology & Marketing*, Vol. 27 No. 4, pp. 323-346.
17. Chen, S.C., Chen, H.H. and Chen, M.F. (2009), "Determinants of satisfaction and continuance intention towards self-service technologies", *Industrial Management & Data Systems*, Vol. 109 No. 9, pp. 1248-1263.
18. Cheung, M.F. and To, W.M. (2011), "Customer involvement and perceptions: The moderating role of customer co-production", *Journal of Retailing and Consumer Services*, Vol. 18 No. 4, pp. 271-277.
19. Choi, B. and Choi, B.J. (2014). "The effects of perceived service recovery justice on customer affection, loyalty, and word-of-mouth", *European Journal of Marketing*, Vol. 48 No. 1/2, pp. 108-131.
20. 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.
21. Curtis, S. (2013), "The innovations that took amazon from online bookseller to dominant global marketplace", available at: [www.businessinsider.com](http://www.businessinsider.com)
22. 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.
23. Dagger, T.S. and David, M.E. (2012), "Uncovering the real effect of switching costs on the satisfaction-loyalty association: The critical role of involvement and relationship benefits", *European Journal of Marketing*, Vol. 46 No. 3/4, pp. 447-468
24. Edward, M. and Sahadev, S. (2011), "Role of switching costs in the service quality, perceived value, customer satisfaction and customer retention linkage", *Asia Pacific Journal of Marketing and Logistics*, Vol. 23 No. 3, pp. 327-345
25. 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, pp. 54-61
26. Fornell, C., and Larcker, D.F. (1981), "Evaluating structural equation models with unobservable variables and measurement error", *Journal of Marketing Research*, Vol. 18 No. 1, pp. 39-50.
27. Fournier, S. (1998), "Consumers and their brands: Developing relationship theory in consumer research", *Journal of Consumer Research*, Vol. 24, pp. 343-73.
28. Gerpott, T.J., May, S. (2016), "Integration of Internet of Things components into a firm's offering portfolio – a business development framework", *Business Process Management*, Vol. 18 No. 2, pp. 53-63.
29. Hockett, M., 2015. No joke: Amazon's Dash button enables one-push ordering. In: Industrial Distribution, Madison. Advantage Business Media.
30. Jöreskog, K. and Sörbom, D. (1993), *LISREL 8: Structural Equation Modeling with the SIMPLIS Command Language*, Chicago, IL.
31. Kantor, J. and Streitfeld, D. (2015), "Inside Amazon: Wrestling big ideas in a bruising workplace", *New York Times*, August 15, pp. 74-80.
32. Kim, H.Y., Kim, Y.K., Jolly, L. and Fairhurst, A. (2010), "The role of love in satisfied customers' relationships with retailers", *The International Review of Retail, Distribution and Consumer Research*, Vol. 20 No. 3, pp. 285-296.

33. Kim, J. and Sung, Y. (2009), "Dimensions of purchase-decision involvement: Affective and cognitive involvement in product and brand", *Brand Management*, Vol. 16 No. 8, pp. 504-519.
34. Lacey, R. (2007). "Relationship drivers of customer commitment", *Journal of Marketing Theory and Practice*, Vol. 15 No. 4, pp. 315-333.
35. Larivière, B., Bowen, D., Andreassen, T.W., Kunz, W., Sirianni, N.J., Voss C., Wunderlich, N.V. and Keyser A.D. (2017), "Service Encounter 2.0: An investigation into the roles of technology, employees and customers", *Journal of Business Research*, Vol. 79, pp. 238-246.
36. Larzelere, R. and Huston, T.L. (1980), "The dyadic trust scale: Toward understanding interpersonal trust in close relationships", *Journal of Marriage and the Family*, Vol. 42.
37. Lee, H.J. (2015), "Consumer-to-store employee and consumer-to-self-service technology (SST) interactions in a retail setting", *International Journal of Retail & Distribution Management*, Vol. 43 No. 8, pp. 676-692.
38. Leo, C., Bennett, R., and Hartel, C.E.J. (2005), "Cross-cultural differences in consumer decision-making styles", *Cross Cultural Management*, Vol. 12 No. 3, pp. 32–63.
39. Liu R.L., Sprott D.E., Spangenberg E.R., Czellar S. (2018), "Engaging with brands: The influence of dispositional and situational brand engagement on customer advocacy. In: Palmatier R., Kumar V., Harmeling C. (Eds). *Customer Engagement Marketing*. Palgrave Macmillan, Cham.
40. Malhotra, N.K., Kim, S.S., and Patil, A. (2006), "Common method variance in IS research: A comparison of alternative approaches and a reanalysis of past research", *Management science*, Vol. 52 No. 12, pp. 1865-1883.
41. Martin, J.K., Martin, L.G., Stumbo, N.J. and Morrill, J.H. (2011), "The impact of consumer involvement on satisfaction with and use of assistive technology", *Disability and Rehabilitation: Assistive Technology*, Vol. 6 No. 3, pp. 225-242.
42. Mittal, B. (1989), "A theoretical analysis of two recent measures of involvement", *Advances in Consumer Research*, Vol. 16, pp. 697-702.
43. Mittal, B. (1995), "A comparative analysis of four scales of consumer involvement", *Psychology & Marketing*, Vol. 12 No. 7, pp. 663-682.
44. Morgan, R. and Hunt, S. (1994), "The commitment-trust theory of relationship marketing", *Journal of Marketing*, Vol. 58, pp. 20-38.
45. Moussa, S. and Touzani, M. (2013), "Customer-service firm attachment: What it is and what causes it", *International Journal of Quality and Service Sciences*, Vol. 5 No. 3, pp. 337-359.
46. Mukherjee, A. and Nath, P. (2007), "Role of electronic trust in online retailing", *European Journal of Marketing*, Vol. 41 No. 9/10, pp. 1173-1202.
47. Nunnally, J. C. (1978). *Psychometric Theory*, McGraw-Hill, New York, NY.
48. O'Cass, A. and Choy, E. (2008), "Studying Chinese generation Y consumers' involvement in fashion clothing and perceived brand status", *Journal of Product & Brand Management*, Vol. 17 No. 5, pp. 341-352.
49. Orel, F.D. and Kara, A. (2014), "Supermarket self-checkout service quality, customer satisfaction, and loyalty: Empirical evidence from an emerging market", *Journal of Retailing and Consumer Services*, Vol. 21 No. 2, pp. 118-129.
50. Oxford, J. (2013), "6 things online retailers can learn from Amazon", available at: [www.forbes.com](http://www.forbes.com)

51. Park, C.H. and Kim, Y.G. (2003), "Identifying key factors affecting consumer purchase behavior in an online shopping context", *International Journal of Retail & Distribution Management*, Vol. 31 No. 1, pp. 16-29.
52. 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.
53. Ramadan, Z.B., and Farah, M.F. (2017), "The Pokémonisation of the first moment of truth", *International Journal of Web Based Communities*, Vol 13 No. 2, pp. 262-277.
54. Ramadan, Z.B., Farah, M.F. and Mrad, M. (2017), "An adapted TPB approach to consumers' acceptance of service-delivery drones", *Technology Analysis & Strategic Management*, Vol 29 No.7, pp. 817-828.
55. Ramadan, Z., Farah, M. F., & Dukenjian, A. (2018), "Typology of social media followers: the case of luxury brands", *Marketing Intelligence & Planning*, Vol 36 No.5, pp. 558-571
56. Ramaseshan, B., Kingshott, R.P. and Stein, A. (2015), "Firm self-service technology readiness", *Journal of Service Management*, Vol. 26 No. 5, pp. 751-776.
57. Rao, Leena (April 25, 2017), "Two Years after Launching, Amazon Dash Shows Promise" *Fortune*, available at: <http://fortune.com/2017/04/25/amazon-dash-button-growth/>
58. Roy, S.K, Lassar, W.M, and Butaney, G.T. (2014), "The mediating impact of stickiness and loyalty on word-of-mouth promotion of retail websites: A consumer perspective", *European Journal of Marketing*, Vol. 48 No. 9/10, pp. 1828-1849.
59. Sarkar, A. (2011), "Romancing with a brand: a conceptual analysis of romantic consumer-brand relationship", *Management & Marketing*, Vol. 6 No. 1, pp. 79-94.
60. Sashi, C.M. (2012), "Customer engagement, buyer-seller relationships, and social media", *Management decision*, Vol. 50 No. 2, pp. 253-272.
61. 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. 117-38.
62. Slama, M.E. and Tashchian, A. (1985), "Selected socioeconomic and demographic characteristics associated with purchasing involvement", *The Journal of Marketing*, pp. 72-82.
63. Smith, J.W. (2016), "The uber-all economy of the future", *The Independent Review*, Vol. 20 No.3, p. 383.
64. 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. 2-3, pp. 195–202.
65. Sunil, (2015). "Trends and practices of consumers buying online and offline: An analysis of factors influencing consumer's buying". *International Journal of Commerce and Management*, Vol. 25 No.4, pp. 442-455.
66. Thorbjørnsen, H., Supphellen, M., Nysveen, H. and Pedersen, P.E. (2002), "Building brand relationships online: A comparison of two interactive applications", *Journal of interactive marketing*, Vol. 16 No. 3, pp. 17-34.
67. Vesel, P. and Zabkar, V. (2010), "Relationship quality evaluation in retailers' relationships with consumers", *European Journal of Marketing*, Vol. 44 No. 9/10, pp. 1334-1365.
68. Viktoria Rampl, L., Eberhardt, T., Schütte, R. and Kenning, P. (2012), "Consumer trust in food retailers: Conceptual framework and empirical evidence", *International Journal of Retail & Distribution Management*, Vol. 40 No. 4, pp. 254-272.

69. Wu, H.C., Li, M.Y., and Li, T. (2014), “A study of experiential quality, experiential value, experiential satisfaction, theme park image, and revisit intention”, *Journal of Hospitality & Tourism Research*, pp. 1-48.