# Effective digital loyalty strategies in services during COVID-19 pandemic: does digital adoption matter?

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**Abstract**

E-consumer Behaviour is a shifting fast as more and more consumers migrate from physical to digital stores to limit physical interaction. This research explores the effectiveness of digital loyalty strategies in services' industry under the light of the ongoing pandemic and the respective increase in terms of Digital Adoption (DA) within the industry. In addition, this study investigates the direct effects of perceived in-store infection threat (SIT). To collect data, online self-administered survey was utilized in Greece, where 235 adult consumers participated. Findings revealed that SIT benefits Repurchase Intentions (RI) of digital services, since it exerted positive direct effects in using digital channels. Moreover, DA moderates the effectiveness of loyalty strategies. As a result, marketing strategies and practices are proposed sensitive to digital adoption or frequency of use.

## Introduction

Services are facing a tremendous challenge, since the ongoing pandemic has caused significant changes in terms of consumers' perceptions, attitudes, activities, interests and in general, this crisis has brought various shifts on Consumer Behaviour (Pollak and Konecny, 2021; Svajdova, 2021). The problem, which this study illustrates, is to address the basic variables that can be used to segment online consumers that are characterized by different incentives and means of approachability in terms of marketing practices and loyalty strategies. This study explores the effectiveness of Customer Equity Drivers (CEDs) or loyalty strategies in terms of e-channel's Repurchase Intentions (RI) during the turbulent era of the ongoing pandemic in the services' industry. It's the first research to examine the moderating effects of Digital Adoption (DA) on the relationship between loyalty strategies and RI for a digital platform in services. Frequency of use and Digital Adoption (DA) are used interchangeably in this study. Last, but not least, this paper unveils the direct effects of perceived store infection threat (SIT) on a digital platform's PI. The structure of this paper is the following: authors solidify the conceptual framework and the validity of the research method in literature review and methodology. In the findings' section, we provide evidence using regression and moderation analysis. Conclusion and limitations are the last sections to follow.

## 2. Literature Review

### 2.1 Customer Equity Drivers

Customer Equity suggests the total sum of discounted net cash flows deriving from the firm's customers throughout their relationship with the company and the brand (Rust et al., 2004). In general, this total value is known in marketing literature as Customer Lifetime Value whereas it depends on repurchasing the company's branded offerings (Vogel et al., 2008). The higher the repurchase intentions, the higher the customer equity. Value Equity (VE), Brand Equity (VE), and Relationship Equity (RE) are the main antecedents of Customer Equity, also known as Loyalty Strategies or Customer Equity Drivers (CEDs).

As for Value equity, it mainly depends on the perceived sacrifice comparing to the value received (Vogel et al., 2008). Research has indicated that the ratio of the utility received to what is given by customers is

essential for them to feel content and justify a purchase (Rust et al., 2004). Especially for rational purchase buying process this is of great importance and as soon as customer's involvement with the specific service is high (Abadi et al., 2013). Thus, it's important for services' marketers to provide the desired characteristics, ease of access when ordering, supplementary services (i.e., customer service and warranties) and other augmenting services (Razzaq et al., 2017).

Brand Equity on the other hand, represents the power of the brand mainly sourced by intangible and augmented product (Aaker et al, 2004). BE itself transmits signals value as well as quality cues to customers, especially to those that cannot assess it prior to consumption (Erdem et al., 2006). BE is the price premium between a branded offering and a no-name brand (Aaker et al, 2004). Thus, a service brand of similar VE is more desirable comparing to a value offering of a less strong brand hypothesizing a similar price. According to the literature review, BE is a function of brand awareness, brand associations such as brand personality and brand image and it also depends on perceived quality (Aaker et al, 2004). This is particularly important for services, since it is evidenced that limited service providers in Europe apply organized branding practices. However, this me-too practice leads to minimum differentiation and intense price competition that is hard for a smaller firm to follow. Thus, BE is an imperative loyalty strategy for every firm, regardless its size.

As far as Relationship Equity is concerned, it represents a subjunctive criterion in consumer's decision making (Vogel et al., 2008). RE suggests the quality and quantity of relationship established between the seller and the consumer. Relationship Management and the respective campaigns such as Corporate Social Responsibility programs (CSR campaigns), communication on sustainability and green production aim to forge trust and positive emotions towards the firm and its products (Vogel et al., 2008). Especially in food services that are of high-intense competition, the quality of relationship is imperative ingredient of loyalty (Nawaz et al., 2017). Summarizing, RE can be a winning strategy for branded offerings of similar levels of BE and VE.

### 2.2. Effects of CEDs on Consumer Behaviour

CEDs or Loyalty Strategies drive future revenues, thus customer lifetime value and consequently, business profitability (Vogel et al., 2008). On a marketing perspective, loyalty strategies are critical in terms of favorable consumer behaviour such as customer loyalty, positive word of mouth, frequency, and amount of orders (Rust et al., 2004). According to the theory of the planned behavior, intentions precede sales and observed customer decision-making. To forecast sales and thus, effectiveness of loyalty strategies and CEDs, marketers and practitioners are required to measure repurchase intentions (Vogel et al., 2008).

As far as consumer behaviour is concerned, this is a complex phenomenon as there is a plethora of phases both prior and post purchase (Niros et al., 2018). Purchase intention is a prominent predictor of consumer's decision-making. In practice, both researchers and managers rely on purchase intentions scale to figure out favorable or not favorable behaviour (Ho and Chung, 2020). Thus, purchase intention concern self-guided actions to purchase a product. In services, the formulation of purchase intention is rather complex incorporating attitudes, perceptions and decisions and intervention strategies should be carefully planned by managers. Future sales suggest an outcome of brand-related attitudes and perceptions, since previous research illustrated purchase intention at the long-term outcomes favorable decision making (Vogel et al., 2008). Repurchase Intention (RI) on the other hand, reflects intentions to buy the same brand more than once (Chaudhuri and Holbrook, 2001). In general, two types of repurchase behaviours can be found; intention to repurchase is the first one whereas word-of-mouth, negative or positive is the second. This research focuses on RI related to digital distribution channels such as eCommerce websites, mobile apps, and online marketplaces.

### 2.3. Proposed Moderators of e-consumer behaviour

Past research has indicated e-customer behaviour to be sensitive to the adoption of ecommerce as well as the frequency of using digital platforms. Consumers indicating higher frequency of using ecommerce and digital platforms for the purchase of a service indicate differences in terms of criteria to reuse a digital brand (Molinillo et al., 2021). Highly involved consumers in general demonstrated not only better use of digital technologies, but they were also more receptive to digital campaigns such as newsletters, banners, gamification, and communication via emails and chatbots (Aldas-Manzano et al., 2011). Thus, it is expected that the frequency of using a digital place or digital adoption will moderate the positive effects of loyalty strategies on RI.

Furthermore, the pandemic has caused panic related to physical stores that brings turbulence and change in consumer behaviour (Svajdova, 2021). It is obvious that consumers started using digital sales channel more intensively comparing to the pre-pandemic era to eliminate infection risk. According to the study of Szymkowiak et al. (2021), perceived in-store infection threat (SIT) along with social distancing has made a necessity for the retailers to adjust marketing practices including the expansion of digital sales. Thus, we expect that the effectiveness of digital loyalty strategies in terms of RI will be moderated by digital adoption (DA) and furthermore, perceived SIT is expected to be positively related to RI.

Hence, we formulate the 4 hypotheses below:

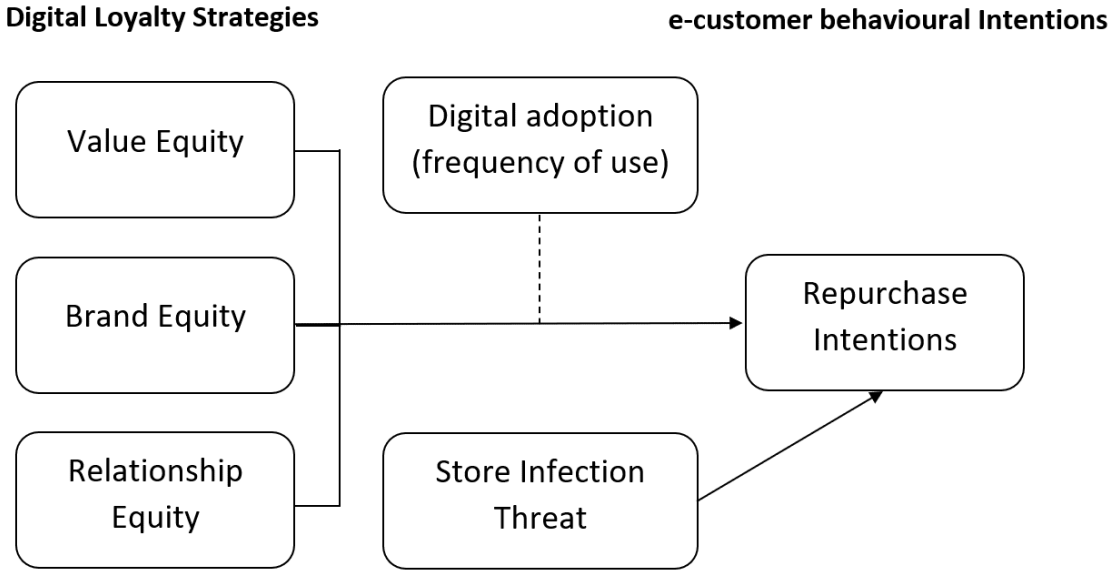
$H_1$: SIT exerts positive direct effect on RI for services' digital platforms

$H_2$: DA moderates the effectiveness of VE for services' digital platforms

$H_3$: DA moderates the effectiveness of BE for services' digital platforms

$H_4$: DA moderates the effectiveness of RE for services' digital platforms

**Figure 1: Conceptual Framework**




## 3. Methodology

A computer-based self-administered survey was utilized to collect data, using a positivism approach. This method is widely used in social and business sciences, especially during the pandemic which has caused social distancing. 5-point Likert-based constructs were used to minimize error of measurement, since in self-administered surveys the completion of the questionnaire needs to be quick and to be well-understood. More specifically 467 consumers of services brands were approached in Greece between February and April 2021 via email and social media. These consumers were asked to recall their latest experience with a digital service provider. In case there was no recent experience, the process was stopped. 262 out of 467 consumers both participated and had a recent experience on services purchased on digital channels. The basic construct utilized was developed by Rust et al. (2000) and Vogel et al. (2008) and adjusted to measure BE, VE and RE of digital sales channels. As for RI, measurement was facilitated by using the adjusted scale of Chaudhuri and Holbrook (2001). Frequency of use was also measured through a 5-point likert scale (1: Never, 5: Always). Concerning the analysis, SPSS V.21 helped researchers to analyze data using factor analysis, Cronbach's alpha, multiple regression analysis as well as moderation analysis. Regarding the evaluation of measurement model, we used exploratory factor analysis and Cronbach's alpha. Reliability and validity of constructs as Table 1 illustrates, were measured at satisfactory levels since most of standardized factor loadings were well above 0.70. In addition, to check internal validity of research constructs we used Cronbach's Alpha (α) test.

**Table 1** Reliability and validity of constructs

| Constructs | Original Items | Standardized regression weight | Cronbach 's alpha |
|---|---|---|---|
| **Brand equity** Rust *et al.* (2000) Vogel et al. (2008) | *BEQ1*. I recognize this digital platform is a leading brand | 0.694 | **0.775** |
| | *BEQ2*. This digital platform is attractive | 0.875 | |
| | *BEQ3.* This digital platform is unique | 0.689 | |
| | *BEQ4.* I like this digital platform | 0.863 | |
| **Value equity** Rust *et al.* (2000) | *VE1.* This digital platform allows me to increase my knowledge about particular products or usage of the products | 0.748 | **0.810** |
| | *VE2.* This digital platform helps me solve problems associated with product use | 0.758 | |
| | *VE3*. This digital platform helps increase my understanding of particular products and services by providing personalized solutions | 0.781 | |
| | *VE4.* The contents of this digital platform give me product/ service information that is relevant to my needs | 0.747 | |
| | *VE5.* The contents of this digital platform help me make good purchase decisions | 0.742 | |
| **Relationship equity** Rust *et al.* (2000) | *RE1*. I have trust in this digital platform for purchasing products and services | 0.697 | **0.827** |
| | *RE2.* Through this digital platform, I feel this business is close to me | 0.856 | |
| | *RE3.* I think this business, through this digital platform, makes several investments to improve our relationship | 0.822 | |
| | *RE4.* I think in this digital platform, this firm tries to improve our relationship | 0.863 | |
| **Frequency of Using Digital Platforms** | *FREQ1.* Frequency of use: social media | 0.578 | **0.779** |
| | *FREQ2.* Frequency of use: e-shop | 0.855 | |
| | *FREQ3.* Frequency of use: Website | 0.936 | |
| | *FREQ4.* Frequency of use: App | 0.689 | |
| **Repurchase intention** Chaudhuri and Holbrook (2001) | *RI1.* I intend to continue using this digital platform in the future | 0.830 | **0.853** |
| | *RI2.* I would recommend this digital platform to friends and relatives, even if they are existing customers | 0.865 | |
| | *RI3.* I look forward to purchasing more products and services from this digital platform | 0.857 | |
| | *RI4.* I would like to have the first-hand information about new products and services provided by this digital platform | 0.794 | |

## 4. Findings

To support or reject hypotheses, multiple regression analysis was utilized by using RI as dependent variable. CEDs and SIT were imported as independent variables. ANOVA of the afore-mentioned model indicated a great deal of significance ($p<0.01$). This research model explained the 59.4% of the total variance of Repurchase Intentions. Regarding the direct effects of CEDs on the dependent variable, RE, BE, and VE exerted positive influence on RI in descending order. Thus, it seems that digital service providers may use every available possible loyalty strategy to boost RI. On the other hand, RE is the most effective loyalty strategy for it is positively related to PI ($\beta=0.339$, $p<0.001$) and it is followed by BE ($\beta=0.256$, $p<0.001$) and VE ($\beta=0.234$, $p<0.001$). Using perceived SIT as a control variable, we stressed that the pandemic and the resulting SIT has benefited digital service providers to attract new

customers or users ordering service offerings via their platform and increasing consumers' RI (β=0.188, p<0.01). Thus, $H_1$ is supported a fact that illustrates the opportunity of service providers to expand their digital sales. Concerning the indirect effects of Digital Adoption (DA) or frequency of using digital platforms in services, we utilized a moderation analysis of DA in the relationship between CEDs and RI. Interaction analysis presented on Table 2 reveals that DA suggests an important moderator of e-customer behaviour. More specifically, DA in services strengthens the positive effects of value equity on RI (β=0.340, p<0.05). Thus, $H_2$ is supported, which is a fact indicating that digital adopters are experiencing higher levels of RI comparing to consumers with lower levels of DA. On the other hand, DA attenuates the relationship between BE and RI (β=-0.540, p<0.01). Thus, $H_3$ "DA moderates the effectiveness of BE for services' digital platforms" needs to be accepted. Regarding $H_4$ "DA moderates the effectiveness of RE for services' digital platforms", moderation analysis indicates insignificant positive effect on the relationship between RE and RI. Hence, $H_4$ needs to be rejected. Table 2 that follows illustrates multiple regression results, along with interaction analysis.

**Table 2** Results of interaction analysis

| | | ***Services*** | | |
|---|---|---|---|---|
| | **Regression Results** | **Standardized coefficient** | **t-value** | **Hypothesis support** |
| | BE ---> RI | 0.256*** | 3.194 | - |
| | VE ---> RI | 0.234*** | 3.551 | - |
| | RE ---> RI | 0.339*** | 4.142 | - |
| ***H1*** | SIT ---> RI | **0.188***** | 2.155 | **Supported** |
| ***H2*** | VE x DA ---> RI | **0.340**** | 2.549 | **Supported** |
| ***H3*** | BE x DA ---> RI | **-0.540***** | -2.945 | **Supported** |
| ***H4*** | RE x DA ---> RI | **0.150** | 0.834 | **Rejected** |

**Notes:** **p < 0.05; ***p < 0.001, Model significance < 0.001, Adjusted $R^2$ = 0.594

## 5. Conclusions & Discussion

The basic conclusions of this analysis concern the impact of the ongoing pandemic on the e-customer behavior in the service sector. The first conclusion is that service providers encounter a great deal of threat related to risks associated with perceived-instore threat. Customers fear of being infected, so they migrate to digital sales channels for their order. Hence, there is an opportunity window for service providers to grow their business in digital means. These results are aligned to the findings of Pollak and Konecny (2021) and Svajdova (2021). One further conclusion is the fact that DA and more specifically, the frequency of using digital distribution channels impacts the effectiveness of digital loyalty strategies. For instance, the effectiveness of VE is stronger for consumers with high DA, comparing to consumers with low DA. This can be attributed by the fact that customers with higher levels of DA are more receptive to value for money offerings and ease of access. In addition, customers with high levels of DA were less influenced by BE. Hence, these customers were less interested on the brand itself comparing to customers with lower levels of DA. Hence, it's imperative for digital service providers to segment their users and customers according to frequency of using digital platforms. These findings are in accordance with the research of Aldas-Manzano et al. (2011) and Jamal et al. (2012). This is an important aspect of this paper, since digital retailers may develop customized practices according to customers' DA. Last, but not least, this research illustrated the importance of trust and relationship in digital service markets. This is evidenced by the strong direct effects of RE on PI. The formation of strong and enduring relationships is evidenced regardless consumer's DA. Thus, managers need to conduct CRM campaigns that are personalized to the characteristics of their customers.

## 6. Limitations and Future Research

Product category choice is limited on service providers and more specifically on telecommunications, food orders, insurance, and energy. Customer involvement on these products is considered to range from moderate to high and hedonic aspects are limited to most of them. In addition, Greece was the market where the survey was conducted, and hence the research is limited to the specific characteristics of the Greek culture. Therefore, this research can be replicated to countries with different aspects of culture and perceptions. As future research, we propose the investigation of digital adoption on Business-to-Business Settings, or even expand to luxury product category experiencing greater levels of customer involvement.

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