AN EMPIRICAL INVESTIGATION OF THE ORGANIZATIONAL IMPACTS OF A SALES SUPPORT APP

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ABSTRACT

This study empirically explores and documents the organizational impact of implementing a sales support app that complements face-to-face interaction of a salesperson with a customer in the process of purchasing a new car. Two consecutive periods were investigated. Compared to the first period of conventional car buying, the study's results confirm that the sales support app in the second period added business value to the implementing organization via increased visits and car purchases.

KEYWORDS

Mobile Application, Conventional Buying Process, Showroom Visit, Innovative Buying Process, Sales Support App, App Visit

1. INTRODUCTION

App implementation within organizations is increasing since apps serve as enablers of information sharing, communication, and automation (Turban et al., 2017) which, in turn, help generate business value (Zhang et al., 2016) and facilitate innovative services and processes beyond those enabled by a computer (Singh et al., 2017). Despite their considerable potential, only a few studies have explored the business value of apps that support (rather than substitute) face-to-face interaction (Knoesen and Seymour, 2016). To meet the study's goal, the following research question is empirically explored in a case study of a large-scale car importer that implemented a new sales support app: Can implementation of a sales support app add business value via increased visits and purchases?

After the implementation of the sales support app, a customer could fill in personal details and the scan driver's license to trigger an innovative buying process. A customer can then choose a location and schedule a time for face-to-face interaction with the salesperson. Finally, if the customer decides to purchase a car, it is ordered and the sales support app can be used for signing the required documents. Toward exploring this question, data from the organizational database by the organization studied were collected and analyzed.

The results of the empirical analysis confirm that the sales support app added business value compared to conventional car purchasing via increased car purchases and visits in the innovative buying process. This study contributes to the literature on information systems (IS) by referring to the hardly-explored before implementation of apps (Heinze and Matt, 2018) that complement rather than substitute face-to-face interaction of the employee and the customer.

2. THEORETICAL BACKGROUND

This study is about an app that supports a business process where face-to-face interaction is necessary rather than apps that can substitute a human agent completely. Such apps, with a substitution role, are prevalent in banking, navigation, healthcare, ticketing, shopping, hospitality, marketing, appointment scheduling, and insurance (Chhonker et al., 2017; Turban et al., 2017).

Of the scarce research about apps that support face-to-face business processes, Taylor and Levin (2014) and Heinze and Matt (2018) identified a lack of research in this unique fields, with previous research studies shedding light neither on the supportive role of a sales support apps, nor on how these apps affect business value in contemporary organizations.

In response to this gap in previous research, the present research explores the business process of purchasing a new car via sales support app that complements face-to-face interaction between a salesperson and a customer rather than presumes complete substitution. The secondary-data analysis is used as a basis for testing the hypotheses formulated next.

In a sales process, substitution of face-to-face interaction by a mobile app is more likely for a simple retail product that does not demand significant search efforts as the case, with grocery store customers who have all the information they need about the product and a strong intention to buy (Moe, 2003). The search process is more demanding for banking, taking a mortgage, and buying houses (Yu and Chantatub, 2015), insurance policies (Heinze and Matt, 2018; Knoesen and Seymour, 2016), or cars (Moe, 2003). Customers using mobile technologies to visit a digital store have lower transportation costs than customers visiting a regular store (Turban et al., 2017). Most customers presently prefer to search online for information via mobile technologies (Chaffey, 2017; Taylor, 2015). App visits thus can help trigger the selling process by facilitating showroom visits and/or test drives. Hence, the next hypothesis is proposed.

H1: Customers make more app visits for information search than showroom visits.

A car salesperson can use the sales support app in response to app visits of a customer in two possible ways. One way is via face-to-face interaction, either in the showroom or during a test drive at the customer's location. Another way is by collaborating via the app with a customer remotely, within seconds after a customer's app visit, to provide specific details such as quotes, design information, or technical answers to customer questions. By reducing search costs, by triggering face-to-face interaction between customer and salesperson, perhaps even close to a customer's home, without decreasing her intention to buy, app visits by a customer can thus accelerate sales opportunities compared to showroom visits. It is therefore reasonable to expect an increase in the number of customers who eventually purchase a car due the feasibility, accessibility, ease of use, and ubiquity of app visits (Turban et al., 2017). Hence, the next hypothesis is proposed.

H2: Compared to showroom visits, customers make more purchases following app visits.

3. METHODOLOGY

A large-scale importer of over 30 car models provided access to data records collected during two periods. In the first period, from January 2018 until April 2018, cars were sold via showroom visits under a conventional buying process. In the second period, from April 2018 to August 2018, the importer implemented a sales support app and, for a single car model that was taken out of all showrooms, conducted a pilot of an innovative car buying process. Data records collected from the organizational databases included for each customer activity, like a visit, a purchase or a cancellation, the fields: date, week, day of the week, and current order status. Other customer demographics, as age and gender, were omitted from the activity records collected in the 3149 activity logs in 207 days. The visits recorded in the organizational databases were period-dependent. To test Hypotheses H1 and H2, Poisson regression was used with two numeric dependent variables- Visits and Purchases. App Usage was recorded as a period-dependent binary variable that assumed the value of 1 in the second period and of 0 in the first period. Week was recorded as an ordinal variable that represented the week in which visits/purchases occurred, denoting the first week as Week 1, the second week as Week 2, etc. Day of the Week was recorded as a categorical variable (Sunday = 1... Saturday =7) and used as a control variable.

4. RESULTS

Providing support for H1 and H2, App Usage was found to have a significant positive effect on Visits and Purchases. To better understand the nature of these significant results, t-tests indicate that the slope for Visits

(slope_H1 =3.723, $t=-15.625$, $p<0.001$) and the slop for Purchases (slope_H2 =1.035, $t=-11.024$, $p<0.001$) were significantly different from zero. The averages for Visits are 5.166 and 168.842 and for Purchases are 3.91 and 19.947 respectively via the conventional buying process in the first period (from Week 1 to Week 12) and via the innovative buying process in the second period (from Week 13 to Week 31). Between Week 14 and Week 16 Visits increased, at the beginning of the innovative buying process, possibly as a result of aggressive advertisement. It decreased later on, but stayed higher than under the conventional buying process in the first period. Almost the same result is found for Purchases.

5. CONCLUSION

The innovative buying process investigated in this work not only shortens the search time, but also cuts down on hassle of physically visiting a showroom. This study is among the first to report that using a sales support app increased purchases by triggering an innovative mobile buying process and, thus, adding business value.

The first limitation of this study refers to external validity. The app was studied based on data provided by a single organization about one car model over a limited time period without any other external validation. The second limitation refers to causality since app use was not randomly manipulated.

The theoretical contribution of this research is to the IS literature, with regard to the influence of a mobile sales support app on purchasing decisions. This research has empirically confirmed the importance of exploring the impacts of a specific mobile app. It shows how such a technology, which complements rather than substitutes face-to-face interaction, can generate business value.

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