Customer proactive training vs customer reactive training in retail store settings: Effects on script proficiency, customer satisfaction, and sales volume

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CUSTOMER PROACTIVE TRAINING VS. CUSTOMER REACTIVE TRAINING IN RETAIL STORE SETTINGS: EFFECTS ON SCRIPT PROFICIENCY, CUSTOMER SATISFACTION, AND SALES VOLUME

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Abstract

Due to the rise of technology and the quest for productivity, retailers continue to expand customer coproduction initiatives and companies therefore need to train customers for their roles during their visit. This research aims to compare the effects of proactive training (before experience and before customer request) vs. reactive training (upon request during the experience) on customers' ability to coproduce (script proficiency), the total sales value per customer, and customer satisfaction. Which is the best solution for training customers? This research proposes three main contributions. First, we define the concepts of proactive and reactive training. Second, this research proposes a new way of measuring coproduction by adopting the company's perspective. Third, with this method, we establish that proactive training is the only type of training that increases script proficiency, which in turn positively influences the total sales value per customer, but not customer satisfaction. However, reactive training is still important to avoid critical situations.

Keywords: coproduction, customer education, script, proactive training, reactive training

INTRODUCTION

In recent years, customer coproduction has risen dramatically in retailing, notably with increasing technological developments in service delivery (Bitner et al. 1997; Larivière et al. 2017). For example, self-checkouts and self-scanning are now commonplace in supermarkets, while smartphone apps have become shoppers' best friends to get more information about products (place, composition, price), to scan them, and to pay for them. This strategy is based on the idea that coproduction boosts company profitability while maintaining or increasing customer satisfaction (Meuter et al. 2000). However, customer coproduction is a double-edged sword for companies (Chan, Yim and Lam 2010). While good coproduction is supposed to improve service outcomes, poor coproduction leads to a decrease in customer satisfaction (Solomon et al. 1985) and to an increase in employees' workloads and stress (Chan, Yim, and Lam 2010; Hsieh, Yen and Chin 2004) when customers do not perform their tasks correctly. With this in mind, retailers should view customers as "human resources" that must be managed to enact their roles well (Bowen 1986). Coproduction relies on scripts containing the actions that customers should enact to produce services (Bateson 2002; Solomon et al. 1985). Consequently, companies should explain to customers how to enact their scripts so that they can become proficient (Goodwin 1988). What are the solutions to training customers and how can one improve their script proficiency?

Customer training is a topic requiring urgent attention (Larivière et al., 2017). However, few articles have focused on customer training and its influence on coproduction (Burton 2002; Goodwin 1988; Hibbert, Winklhofer, and Temerak 2012; Zhao, Mattila, and Tao 2008). Most articles on the subject are theoretical, and empirical studies are rare. This empirical research contributes to this topic by comparing the effects of reactive and proactive training on script proficiency and, consequently, on coproduction outcomes from two standpoints: that of the retailer, by looking at the total sales value per customer, and that of

the customer, by looking at their satisfaction. Reactive training is common in retailing and consists of assisting customers upon request during service processes (Field, Xue, and Hitt 2012). Proactive training aims to explain scripts to customers before their experience and before they ask for it (Retana, Forman, and Wu 2015). While scholars have demonstrated the positive influence of proactive and reactive training on coproduction and service outcomes (Arnold et al., 2005; Nicod and Llosa, 2018; Retana et al., 2015) they have not yet examined which of the two is more effective. Should retailers train their customers reactively or proactively?

This research offers three main contributions. First, in literature on the subject, the conceptual differences between reactive and proactive training have not been established. We propose four distinct characteristics: the purpose of training, the content of training, the initiator of training, and the emotional context of training.

Second, we propose a new method to measure coproduction. We adopt the point of view of the retailers and we observe script proficiency instead of using self-declaration by customers. The retailer perspective reflects the company vision of what effective customer coproduction behavior looks like, whereas the customer perspective reflects customers' notion of effective coproduction behavior. Previous research has often made assumptions about the relationship between coproduction and its influence on various outcomes (satisfaction, purchase intention, trust, commitment) by using coproduction scales. Self-declarations capture the perception of customers but, from the company's perspective, they are often biased because people are not able to assess their own performance objectively (Hunter et Hunter, 1984; Lee et Campbell, 1988; DeNisi, Cafferty, and Meglino,1984).

Third, by adopting this script-based methodology, we are the first to compare empirically the effects of reactive and proactive training on script proficiency and the

influence of script proficiency on customer satisfaction and total sales per customer. We establish that proactive training is the only training that improves script proficiency.

Researchers often consider the assistance of employees upon request (reactive training) as the main way of helping customers. In contrast, our research indicates that proactive training is more effective in increasing script proficiency than reactive training. Reactive training is still important to avoid critical situations. Moreover, our research indicates that script proficiency positively influences the total sales per customer, but not customer satisfaction. These findings are surprising. By adopting self-declared measures of coproduction, literature traditionally assumes that coproduction increases customer satisfaction. These results invite researchers to check the stability of the relationships between coproduction and service outcomes (trust, commitment) with the measure of coproduction from the company's perspective.

CONCEPTUAL FRAMEWORK AND HYPOTHESIS

As this research aims to compare the effects of proactive training and reactive training on coproduction and, by extension, on customer satisfaction and total sales per customer, we first need to define these concepts and justify the relationships between them (Figure 1).

Insert Figure 1 about here

Coproduction

Retail industries comprise activities that deliver physical goods or services to customers across different channels (Peterson and Balasubramanian, 2002). Customers visit supermarkets, not only to buy products (Jones et al., 2006) but also to have a certain experience (Arnold and Reynolds, 2003). So, retail industries can be classified as services

directed at goods and analyzed through service theory (Lovelock, 1983). Considering retailing as a service activity, we may examine customer behavior through a customer coproduction lens (Dong, 2015). Beyond their traditional role of buyers (Lengnick-Hall, Claycomb, and Inks 2000), customers participate in service production as partial employees (Mills and Morris 1986). In retailing, ever since the creation of self-service by Clarence Saunders in a Piggy Wiggly store in 1916, customer participation has become one of the basic elements in the business model (Lusch et al., 2007) and, with the development of self-service technologies, has developed continuously through new customer tasks (Dong et al., 2015; Weijters et al., 2007). During a store visit, customers use trolleys, find and pick up products, self-scan products, check out themselves, use their mobile apps, etc. In the service field, all these tasks refer to coproduction, which defines the set of roles that customers perform to contribute to service production (Solomon et al. 1985). In retailing, coproduction consists more precisely of the customer's production behavior in the product delivery process (Dong, 2015).

Script Proficiency as the Customers' Ability to Perform Their Roles Correctly

Companies come up with service scripts to describe these behaviors and roles (Giebelhausen et al. 2014; Bitner, Booms, and Mohr 1994; Brocato, Voorhees, and Baker 2012; Chan, Yim, and Lam, 2010; Larsson and Bowen 1989; Solomon et al. 1985). Scripts contain the appropriate sequences of behaviors that should be exhibited in a given environment (Schank and Ableson 1977). Firms elaborate customers' scripts for each specific stage of a service encounter (Shostack 1984) and coordinate them with employees' scripts to create appropriate interactions and optimize the customer experience (Giebelhausen et al. 2014; Solomon et al. 1985). Script proficiency is, then, a customer's ability to enact their script correctly from the company's perspective.

Customer Satisfaction as an Outcome of Script Proficiency

Script proficiency increases customer satisfaction (Bateson, 2002; Solomon et al., 1985). Customer satisfaction refers to consumers' overall evaluation of their experience (Cronin et al., 2000). The positive influence of coproduction on satisfaction is well established in available literature (Chan et al., 2010; Dong et al., 2015; Solomon et al., 1985; Yim et al., 2012). According to the expectancy disconfirmation theory (Oliver, 1981), customers compare the experienced situation with the expected one to assess their satisfaction. When the outcome is poorer than the expected one (negative disconfirmation), dissatisfaction ensues. Conversely, when the result is equal or better than expected (positive disconfirmation), satisfaction occurs (Oliver, 1980). Concerning service encounters, Solomon et al. (1985) indicate that "satisfaction with a service encounter is seen as a function of the congruence between perceived behavior and the behavior expected by role players" (p.104). So, customers should know how to contribute to the delivery process (Dong, 2015). Companies should try to explain their roles to customers. Indeed, scripts establish role expectations that become the standard for role behavior (Biddle and Thomas, 1966). Customers have normative expectations of what they should do that are associated with given service encounters (Kelley, Donnelly, and Skinner 1990). For example, they may anticipate that they will have more tasks to do in an IKEA store than in other furniture shops. This anticipation is important to avoid negative surprises and dissatisfaction. Customers compare these normative expectations with what actually happens during the service experience (Parasuraman, Zeithaml, and Berry 1988), and this determines their satisfaction level (Oliver 1980). When there is congruence between expected role and experienced role, customer satisfaction ensues. However, in some cases, better script proficiency can actually reduce satisfaction. Customers may feel trapped by scripts or limited in their behaviors, even if they perform their roles correctly. But even if

at some moment during the service experience following the script might seem painful, generally the customer script has to be appealing if the company wants to gain and retain its customers. Knowing how to enact the script should generate an overall positive experience. Consequently, we assume that script proficiency should influence satisfaction in a positive way:

H1: Script proficiency positively influences customer satisfaction.

Total Sales per Customer as an Outcome of Script Proficiency

On the company side, the creation of economic value depends on customer coproduction (Mustak, Jaakkola, and Halinen 2013). In this research, economic value is captured with total sales per customer. This metric is an objective measure of store "effectiveness" (Page et al., 2019; Sorensen et al., 2017). Current service literature indicates that coproduction has a positive influence on a customer's willingness to pay and purchase intention (Dong and Sivakumar, 2017). Preparing service scripts explains this positive relationship. When companies organize their service delivery process by using tools such as blueprints (Flieb and Kleinaltenkamp, 2004; Shostack, 1984), they optimize customer scripts to reduce costs and increase purchasing volume. In retailing, scripts offer opportunities to develop the total sales per customer through different sales tactics. First, scripts develop routines (Bitner, Booms, and Mohr 1994). By analyzing these routines, retailers organize their layout based on customer traffic to ensure that customers acquire intended products and to develop unplanned purchases (Page et al., 2019; Park et al., 1989). For example, routines generate high traffic areas and retailers consider them when choosing a location for an endcap display. Second, customer scripts may lead to interactions with employees. During these interactions,

employees advise customers, encourage sales, and promote products, which may increase turnover (Puccinelli et al., 2009; Solomon et al., 1985). Third, these scripts may encourage customers to use shopping aids (trolleys, retailer apps, etc.), which are positively correlated with basket size (Sorensen et al., 2017). So, if companies elaborate scripts smartly, the total sales value per customer should increase whenever customers perform their script correctly. Of course, in the case that companies offer suboptimal scripts, script proficiency will reduce sales. For example, when the customer journey is not well designed or when some rules are counterproductive ("on-board shop closes 15 minutes before the ship docks"). However, service processes are globally designed to be fluid and to generate sales. So, we assume that:

H2: Script proficiency positively influences the total sales value per customer.

Satisfaction as an Antecedent of Total Sales per Customer

Scholars agree that satisfaction positively affects willingness to pay (Homburg, Koschate, and Hoyer 2005) and purchase intentions (Palmatier et al. 2006; Szymanski and Henard 2001; Taylor and Baker 1994). When customer satisfaction increases, sales performance rises in retailing (Gómez et al., 2004; Kumar et al., 2017; Mägi, 2003). We therefore assume that satisfaction positively influences the total sales value per customer:

H3: Satisfaction positively influences the total sales value per customer.

Reactive and Proactive Training as Antecedents of Script Proficiency

As customers are considered to be partial employees in services (Mills and Morris, 1986), the company should train them. We adopt organizational socialization as a theoretical framework to justify customer training. Kelley et al. (1990, 1992), drawing on Ward (1974), define socialization as the process by which the customer develops skills, knowledge, and attitudes relevant to the service encounter. Via organizational socialization, customers can make better contributions to service quality via what they do (customer technical quality) and how they do it (customer functional quality) (Kelly, 1992). To socialize customers initially entering a service setting, orientation to that setting is fundamental. This includes "place orientation," which clarifies "where I am" or "how I get from here to there," and "function orientation," which addresses "how this organization works" (Bowen, 1986; Weiner, 1985). Customers should understand this organization and the service delivery process to enact their scripts well, and companies should organize this informational transfer (Hibbert et al., 2012).

So, how does one socialize customers in practice? Kelley et al. (1990) indicate that there are different methods for socializing customers: "formal socialization programs, organizational literature, environmental cues, reinforcement and observation of other customers." Formal socialization programs refer to customer education and training (Hibbert et al., 2012; Kelley et al., 1990; Nicod and Llosa, 2018). Customer training, which is the form of socialization we focus on, can be defined as activities directed at the acquisition of knowledge, skills, and attitudes for which there is an immediate or near-term application for products, services, or customer journeys (Kraiger, Ford, and Salas 1993; Kraiger 2003; Zhao, Mattila, and Tao 2008). While authors often insist on the importance of customer training (Goodwin 1988), empirical studies of customer training are limited. In retailing, they focus on the content and the medium, which are used to train customers (Nicod and Llosa, 2018). Hibbert et al. (2012) suggest instead analyzing the learning situations in which training takes

place. Managerially, retailers train customers in two different situations: before (proactive training) or after (reactive training) they ask for assistance. Which is better?

Reactive training, which consists of training a customer during the visit upon request (Field, Xue, and Hitt 2012), is commonplace. Employees are accustomed to assisting customers when they find themselves in difficulty. For instance, when customers do not know how to use a self-scanning system (such as Walmart's "Scan & Go" app) or where to find products in a store, they ask for employee assistance. Service providers organize and plan recovery strategies in response to such difficulties (Collier, Breazeale, and White 2017). In a service context, Field, Xue, and Hitt (2012) demonstrate that reactive support accelerates customers' coproduction learning rates when they are using self-service technologies. Compared to people who have received no training, customers should have a higher script proficiency after reactive training:

H4(a): Customers who receive reactive training have a higher script proficiency than customers who receive no training.

Proactive training, which consists of training customers before the beginning of the experience and before they ask for assistance (Nicod and Llosa, 2018; Retana, Forman, and Wu, 2015) is uncommon, especially in retail, and is usually dedicated to specific services (Goodwin 1988). For example, in Buzz Lightyear's Space Ranger Spin attraction, Disney explains to visitors how to participate before getting on board. Similarly, in some thalassotherapy hotels, a presentation is organized when guests arrive (what is involved, where to go, at what time, how to dress, etc.). The scarcity of proactive training in managerial situations, then, is surprising when we consider the findings of the literature. In marketing, and especially in retail industries, proactivity is associated with company performance

(Thomas et al., 2010). For instance, proactive behaviors by employees improve customer experience (Raub and Liao, 2012; Söderlund, 2018). Proactive training may occur at different stages and in various circumstances before the service encounter: at home, at work, or at the beginning of the visit, for instance. Proactive training provides guidance on the content of a role (Retana et al., 2015) and how to perform it, which increases role readiness (role clarity and customers' ability) and thereby customer role performance (Larivière et al. 2017). In retailing, Nicod and Llosa (2018) indicate that training customers before starting a visit improves their coproduction.

H4(b): Customers who receive proactive training have a higher script proficiency than customers who receive no training.

While prior studies have defined both proactive and reactive training, the differences between these two concepts have not been clearly established. Based on our literature review, we propose a distinction between reactive and proactive training based on four characteristics: the purpose of training, the content of training, the initiator of training, and the emotional context of training. Proactive training aims at enhancing customers' global skills and knowledge about scripts (Retana, Forman, and Wu 2015), whereas reactive training aims at solving a specific problem in coproduction (Field, Xue, and Hitt 2012). Therefore, the content of proactive training is broad and contains all the necessary information about scripts, while reactive training is focused on a specific point designed to answer customer questions. In the case of proactive training, the providers are the initiators of the training, and they undertake it to prepare customers to coproduce (Challagalla, Venkatesh, and Kohli 2009; Retana, Forman, and Wu 2015). Conversely, customers request reactive training from companies when they do not understand a part of the process (Retana, Forman, and Wu 2015). The emotional context

is different: reactive training occurs when customers encounter difficulties with coproduction, at which point they experience either negative emotions or none at all (Menon and Dubé 2000; Smith and Bolton 2002). Conversely, when companies are proactive and anticipate customers' needs, customers tend to feel positive emotions or none at all, and are more satisfied (Arnold et al. 2005; Bitner, Booms, and Tetreault 1990).

Insert Table 1 about here

Based on these differences between proactive and reactive training, we assume that proactive training should lead to better script proficiency than reactive support. Concerning the purpose and the content, providing more information leads to a better understanding of the role and to more successful coproduction (Bettencourt et al., 2002). So, proactive training, which provides customers' global knowledge and skills, should have a stronger influence than reactive training, which focuses on dealing with a specific problem. As we consider the emotional context, we should obtain the same results. Negative emotions, which appear in reactive training situations, tend to impair learning (Pekrun 1992, 2011), while positive emotions, which are tied to a proactive training context, increase learning (Pekrun 1992, 2011).

H5: Customers who receive proactive training have a higher script proficiency than customers who receive reactive training.

METHOD

Field Experiment

We designed a quasi-experimental study to be carried out in an IKEA store to test H1–H5. IKEA was chosen, first, because of its economic model, which provides an excellent example of the need for adequate customer involvement to generate value by transferring tasks from staff to customers (Johnson and Selnes 2004). In this type of store, customers must master numerous codes to coproduce effectively. IKEA thus offers a suitable context in which to evaluate the influence of two types of training on customer proficiency. Furthermore, the large and heterogeneous clientele (in terms of age, gender, and socio-economic group) reduces any bias related to the type of people shopping at the store.

Sampling Procedure

We created different experimental groups to test the influence of proactive and reactive training. Customers could fall into four categories (Table 2): those who received both types of training (Group 1), those who received only proactive training (Group 2), those who received only reactive training (Group 3), and those with no training (Group 4). The size of the four groups is different because proactive training is manipulated and controlled, whereas reactive training depends on the customer's will and needs. We obtained the following sample (Table 2).

Insert Table 2 about here

Data Collection

Figure 2 describes the protocol. At the store entrance, we administered the first questionnaire to measure the control variables. We measured time pressure, self-perceived knowledge of the store, self-perceived ability to perform a role, the hedonic or utilitarian purpose of the visit,

the type of product that motivated the visit, and the expected total sales value per customer, gender, and age. We controlled the companion effect by having the same proportion of customers (nearly 50%) who were accompanied and alone in each group (reactive training, proactive training, and no training). We collected these data to control that the groups were similar with respect to these variables. After completing this questionnaire, half of the customers received proactive training, during which an employee explained the script that they had to perform (Appendix 1). We chose to provide proactive training in this situation to be able to control the quasi-experimental conditions. The other half (with no proactive training) started their visit immediately. We then surreptitiously followed customers and recorded their behavior using the observation table (Appendix 2) to measure their script proficiency. The measure of script proficiency is developed in the next section. When a customer asked for employee assistance, the observer drew closer and listened in to establish whether the discussion was about the service script or not. If it was, the interaction was considered to be reactive training. At the checkouts, we administered the last questionnaire to measure the customers' satisfaction level and observed the total sales value per customer.

Insert Figure 2 about here

Measures

Satisfaction was measured using a seven-point Likert scale on three items, extracted from Oliver and Bearden (1983), Oliver (1980), and Westbrook and Oliver (1991), respectively: Sat 1: I'm satisfied with my visit, from 1 ("totally dissatisfied") to 7 ("totally satisfied"); Sat 2: Based on your expectations, rate this visit from 1 ("much worse than expected") to 7 ("much better than expected"); Sat 3: Rate this visit from 1 ("terrible") to 7 ("delightful").

The factor loadings are good (Sat 1: 0.899, Sat 2: 0.769, Sat 3: 0.903) as well as the scale reliability (Cronbach's $\alpha = 0.827$, AVE = 0.743, CR = 0.896). Concerning analysis of variance (ANOVA) tests and means calculations, we consider satisfaction as the mean of the three items. The total sales per customer is a numerical variable, which is observed at checkout and then normalized by applying a natural logarithm function ($\ln(x+1)$) (p 159, Field, 2009). The data normalization of the dependent variable is often required for monetary values in data analysis (Kumar and Venkatesan, 2005; Retana et al., 2015) to run ANOVA (p 359. Field, 2009).

Script proficiency is a central variable in customers' ability to perform their coproduction role well from the company's perspective. Yet, no prior studies have adopted script proficiency. The literature available in retailing and services usually uses self-declaration as its sole measure of coproduction performance (Chan, Yim, and Lam 2010). Self-declaration captures the customer's perspective and is a perception. From the retailer's point of view, this measure is often biased, because people are not able to assess their own performance objectively (Hunter et Hunter, 1984; Lee et Campbell, 1988; DeNisi, Cafferty, and Meglino, 1984). To evaluate it more objectively, then, companies should observe customer behavior. We therefore propose an alternative method to measure script proficiency that is based on observation, which is one of our key contributions and lies at the heart of this study's originality. But how does one observe and measure script proficiency?

We developed a methodology in three steps to collect and analyze customer script proficiency. First, as we define scripts as the appropriate sequence of roles and behaviors (Schank and Ableson 1977), we established this sequence for a customer visit to IKEA. Through observation (20 customers), in-depth interviews with IKEA store managers (10), and secondary data, we divided customer behaviors into two categories: appropriate and inappropriate, from the company's perspective (Table 3). More precisely, to identify the

appropriate behaviors, we designed the customer journey at IKEA using the store's "How to shop" website. We then identified the inappropriate behaviors using a qualitative study (20 observations over a complete visit).

We interviewed IKEA managers to check if our list of behaviors was consistent with their managerial experiences. Then, at each moment in the journey, we described a number of different customer behaviors, and managers were asked to sort these into two categories: appropriate and inappropriate. Following this, we brought the managers back together and compared their results to achieve inter-rater agreement. The appropriate behaviors are the ones that IKEA encourages because they lead to a particular added value, such as picking up a sales tool (pen, rule, list, or catalog). For example, an IKEA manager indicated that "when customers ask us questions about yellow label products, they do their job. Without contacting us, they will not be able to buy this product" or "we expect that customers use shopping aids when they visit our store." Inappropriate behaviors are those that IKEA aims to avoid because they decrease value for the business. For example, previous studies enabled the company to ascertain that customers who take the wrong route purchase less. For instance, an IKEA manager explained that "customers who turn right on entering the store are wrong because they cannot see the products correctly." As expected, coproduction scripts are elaborated to increase customer autonomy and purchases. For example, "a customer who uses a self-checkout is a good customer for IKEA." So, these appropriate and inappropriate behaviors are established from the retailer's perspective and may differ from appropriate and inappropriate behaviors from the customer's point of view.

Insert Table 3 about here

We created an observation table to record these behaviors (Appendix 2). Once the customers had been observed, we calculated a script proficiency score. Each appropriate behavior was given a score of +1 and each inappropriate behavior was given a score of -1. We then totaled the scores for each customer of the sample. We also calculated scores over the entire visit for the control group (that had not received any training). We presented this method, the scoring, and the results to the IKEA managers. They found them coherent with their managerial experiences and practices.

RESULTS

First, we analyzed control variables to verify that there are no statistical differences between groups (reactive training, proactive training, and no training) (Appendix 3). To test the hypotheses H1–H5, we excluded customers who received both proactive and reactive training (Group 1) from this comparison. Without excluding them, we could not isolate the effect of proactive training from the effect of reactive training.

We chose to run two different statistical methods to test the hypothesis: ANOVA and multigroup analysis on SmartPLS. Each method presents limitations that the other one can compensate. ANOVA is a robust method to test the differences of script proficiency between training conditions, but it does not evaluate the global model (Figure 3). In contrast, multigroup analysis tests the global model. However, researchers such Voss and Parasuraman (2003) are skeptical of an SEM-based analysis on the overall sample of participants in an experiment in which the manipulation is significant. Therefore, we triangulated the results by conducting two different analyses.

First, we conducted the ANOVA (Tables 4, 5, and 6):

Insert Table 4 about here

Insert Table 5 about here

Insert Table 6 about here

ANOVA indicates that training influences script proficiency. Scheffe's post hoc tests confirm the statistical differences in script proficiency between the three training conditions (no training, reactive training, and proactive training). Concerning reactive training, H4(a) is not supported: Customers who received reactive training have a lower script proficiency than customers who received no training. This result is highly surprising and counter-intuitive. Customers who received proactive training have a higher script proficiency than customers who received no training (H4(b) is supported) and customers who received reactive training (H5 is supported). We found that training has no direct effects on satisfaction and total sales per customer. As Zhao et al. (2010) mentioned, the lack of direct effect of training on the final variables does not indicate no influence at all because this might be a case of indirect-only mediation in which script proficiency totally mediates the relationship between training and the final variables (Zhao et al., 2010).

Indeed, that is why we ran the multigroup analysis on SmartPLS to test the global model (Figure 3) and triangulated the results. We compared two models: one for the influence of proactive training vs. no training (Group 2 vs. Group 4) and one for the influence of reactive training vs. no training (Group 3 vs. Group 4). We obtained the following results (Figure 3).

Insert Figure 3 about here

The fit indices are acceptable for the two models. For proactive training (Group 2) vs. no training (Group 4) model, we obtain SRMR = 0.049 (<0.08), d_{ULS} and d_G are good, equal

to 0.050 and 0.041 (<0.05) respectively. For reactive training (Group 3) vs. no training (Group 4) model, we obtain SRMR = 0.053 (<0.08) (Henseler et al., 2016), d_{ULS} and d_G are acceptable and equal to 0.059 (near 0.05) and 0.042 (<0.05) respectively.

The results concerning training are consistent with ANOVA. When training is reactive, training negatively influences script proficiency (-0.188). When training is proactive, training increases script proficiency (0.159). So, we obtained the same results as with ANOVA concerning H4(a,b). We contrasted the model comparing "no training vs. proactive training" with the model comparing "no training vs. reactive training" to test H5. The objective is to test if there is a significant difference in the regression weight of training on script proficiency between the two models, that is, between 0.159 and -0.188. To compare them, we conducted a multigroup analysis with SmartPLS. The multigroup analysis compares each relationship of the model and establishes whether there is a significant difference. SmartPLS combines different approaches: partial least squares multigroup analysis, parametric test, Welch–Satterthwaite test. All these approaches converged: The only regression weight that was different between the models to a statistically significant degree was the regression weight between the type of training and script proficiency (Table 7). So, these results are consistent with ANOVA results (H5 is supported).

Insert Table 7 about here

As indicated in Table 7, for both models, we obtained the same results for the relationships between script proficiency, customer satisfaction, and total sales per customer. Script proficiency does not influence customer satisfaction (H1 is not supported). Script proficiency leads to a higher total sales value per customer (H2 is supported) with a regression weight of 0.283 for proactive training vs. no training model, and 0.202 for reactive

training vs. no training model. Concerning the relationship between training and total sales per customer, the relationship is totally mediated by script proficiency with no direct effect. We used a bootstrapping method (Zhao and al., 2010) and we obtained a confidence interval (CI) that excluded zero for the indirect effect in both models. This then is a case of an indirect-only mediation (Zhao et al., 2010).

Customer satisfaction increases total sales value per customer (H3 is supported) with a regression weight of 0.229 for proactive training vs. no training model, and 0.235 for reactive training vs. no training model.

DISCUSSION

Theoretical Contributions

This study contributes to the general literature on customer training. Customers should be trained to be efficient during service encounters. Although this is well accepted in the literature and in practice, few empirical articles clarify which of the methods is most effective in positively affecting customer and organizational outcomes. This research extends the existing literature by comparing the influence of proactive training (before customer request) and reactive training (upon request). We clearly define proactive and reactive training and distinguish between them, which is our first theoretical contribution.

Next, this study proposes a new way of measuring coproduction by adopting the company's perspective and by developing a specific method of capturing script proficiency. Most quantitative research on customer participation, coproduction, and cocreation adopts the customer's point of view. From this perspective, customers self-declare their coproduction performance using scales. However, studies in psychology and management (Heneman 1980; Thornton 1980; Zell and Krizan 2014) establish that self-assessed performance is weakly or, at best, only moderately correlated with objective performance, which must be assessed from a company perspective. In marketing, other phenomena such as attribution effects are expected to influence customers' evaluations of their own performance, especially when incidents occur (Bitner 1990; Weiner 1985). Adopting the company's point of view, we propose another way to measure customer coproduction and task performance—one that does not rely on customer self-assessment. Coproduction relies on scripts designed by companies. These scripts contain the customer actions that companies desire, allow, or forbid. We chose to observe these actions rather than to ask customers whether they accomplished them. This method requires more effort from researchers, however observation results are more reliable than self-declared results (Zhang et al., 2014). First, customers have a limited memory and,

when researchers question them at the end of the experience, they cannot remember the experience exactly as it took place (Ashcraft, 2002; Crowder, 1976; Murdock, 1962). They tend to forget shortcuts that they took, for example. Second, customers may be ashamed of their behaviors and a social desirability bias may appear (Zhang et al., 2014). For example, they would not mention that they got lost. Consequently, we observe customers to assess whether customers perform their role correctly; these observations then enable us to compute a score of script proficiency, which refers to customers' performance in coproduction.

With this methodology, our quantitative study compares the influence of proactive and reactive training on script proficiency, which led to four further substantial contributions.

First, proactive training is the only effective training system that increases script proficiency and, thereby, the total sales value per customer. By training customers before service encounters, companies explain the whole service script to them, thus equipping them to deal with each part of the process. In the case of our study, this process is designed so that customers spend more money and IKEA reduces its costs: Customers take the right route around the store and are exposed to all the products, they have a trolley or a bag in which they may put their purchases, and they are independent. At the end of the visit, the total sales value per customer increases if they have performed their role correctly. Proactive training is thus an efficient system by which to enhance script proficiency. These results are consistent with related literature (Nicod and Llosa, 2018; Retana et al., 2015).

Second, our research indicates a negative influence of reactive training on script proficiency by comparing clients receiving reactive training with those receiving none. This result is surprising when we analyze related literature and managerial practices. Indeed, both authors and practitioners consider reactive training as the main way of training customers. A number of factors may explain this negative influence. First, customers are the initiators of reactive training. The customers who ask for assistance are those who are unable to find a

solution by themselves. Unlike proactive training, for which customers are chosen randomly, there is an auto-selection effect for reactive training. To confirm this idea, for Group 3 (reactive training only), we carried out a complementary analysis comparing script proficiency before and after reactive training and then compared these results with Group 4 (no training) (Figure 4).

Insert Figure 4 about here

We compare the means (before reactive training vs. after reactive training vs. no training) and they are significantly different (sig. = 0.000). As we assumed, when script proficiency is very low, customers ask for reactive training. Reactive training improves script proficiency: The score is significantly higher after training than before it (Zhao, Mattila, and Tao 2008). However, it is not efficient enough to match the script proficiency of customers with no training; there is still a significant gap. This training might be a solution that avoids a critical situation.

The first factor that explains these findings is thus the self-selection effect. Reactive training concerns only the customers who do not know their roles. Paradoxically, when the customers with reactive training declared their knowledge of the store and their self-efficacy in performing their roles at the beginning of the visit, their self-evaluations were similar to the customers with proactive training or no training. So, these customers were not able to estimate their ability to coproduce correctly. These results highlight our concerns about the reliability of self-declared measurement in the coproduction context. A second possible explanation is that reactive training appears in a stressful context. Pekrun (1992) demonstrates that negative emotions such as anxiety or stress may reduce the efficiency of the learning process. Third, reactive training only provides an answer to a specific problem. We may assume that

customers who ask for reactive training can be expected to suffer script deficiencies other than the one they declare during reactive training. Thus, the negative emotional context and the partial information about scripts may explain why reactive training is less efficient than proactive training, especially for customers who are really in trouble. Therefore, reactive training should be considered as a recovery solution for customers who have not mastered their roles.

Third, to conclude, and to answer our main research question, our results indicate that proactive training is more effective than reactive training. This difference in efficiency is consistent with research on service recovery and quality. Indeed, Brown, Cowles, and Tuten (1996) indicate that it is better for a service to be reliable than to enjoy good service recovery. Likewise, SERVQUAL research has always indicated that reliability matters more to customers than the other four dimensions (tangibles, empathy, responsiveness, and assurance) (Zeithaml, Parasuraman, and Berry 1990). Proactive training is the best way to increase reliability for customers and to help increase their script proficiency, which is consistent with SERVQUAL and recovery literature. Reactive training is better at helping customers participate more successfully in recovery following a failure on their part. Training customers before the beginning of the encounter should therefore be better than putting them in an uncomfortable position and then providing them with a solution when difficulties arise.

Fourth, some results are different from those obtained with self-declared measures. Script proficiency does not increase customer satisfaction whereas studies based on coproduction scales assume a positive relationship between coproduction and satisfaction (Yim, Chan, and Lam 2012). Customers declaring a good level of coproduction also declare a higher level of satisfaction. Conversely, in this research, when we adopted the company perspective and observed a higher level of script proficiency, customers did not declare themselves to be more satisfied. This difference may have various explanations. First,

coproduction performance is measured from different points of view. From the company's perspective, script proficiency relates more to role clarity. The actions, which contribute to script proficiency, are crucial tasks for the retailer's profitability but may not lead to customer satisfaction. For example, a customer may prefer a checkout with a friendly employee than checking out at a machine. Moreover, in some cases, customers may perceive these instructions negatively at one specific moment of the experience because they suffer a loss of control or freedom (Brehm, 1966). When customers self-declare their coproduction, they assess if they correctly participate from their own point of view. An appropriate behavior from their perspective may differ from an appropriate behavior from that of the company. For example, when customers talk to employees because they are lost, they will consider this to be good coproduction, whereas IKEA prefers customers to be autonomous. This may explain why, in utilitarian services and high-coproduction systems, we may find no relationship between script proficiency and satisfaction. Second, we can explain that there is no relationship methodologically. When attitudes and performance are measured by a questionnaire, a halo effect appears (Beckwith and Lehmann, 2006). This effect is particularly acute in measurement of satisfaction in services (Wirtz, 2003). In this research, we avoid the halo effect, which reduces the relationship between coproduction and satisfaction.

Managerial Implications

Our findings have implications for managers in the field of retailing, especially in the changing context of customer-facing service delivery (Rafaeli et al., 2017). Service encounters have become more complex because "service encounters encompass any customer–company interaction that results from a system that is comprised of interrelated technologies, human actors, physical/digital environments and company/customer processes" (Larivière et al. 2017). Customers have to be more autonomous and develop new skills to

produce services. For instance, they are expected to scan their products in-store using apps, or use scanners or augmented reality with their smartphones in grocery shops. If these results are important for in-store shopping, they become crucial for online experiences in which human support is reduced and customer autonomy is required. In this context, customer support often relies on information architecture (IA) and chatboxes. When customers log in to the website for the first time, companies may imagine proactive training provided by IA. In the same way, if customers spend a long time on a web page or hesitate in their browsing, retailers may automatically provide reactive training. Consequently, we invite managers to go against the consensus on customer training and consider the issue differently. Most firms rely on training customers reactively. They should focus instead on training them upstream of their visit rather than waiting for customers to call upon them when they have problems. To achieve this goal, companies should design proactive training systems that are attractive to and relevant for customers. For instance, some retailers such as Leroy Merlin position so-called “welcomers” at the store entrance to orient customers and explain the process at the beginning of their visit. Developing proactive training does not mean that it should be compulsory (experts need not be bored with things they already know), nor does it mean that all reactive training should cease: We strongly advise combining both. For example, for two weeks before its launch, Crédit Agricole bank sent short videos to customers explaining how its new website works. When connecting for the first time, these tutorials appeared again on the home page and, for the whole visit, a chatbox was available for clients who needed reactive training.

Reactive training remains a critical aspect in the customer journey, particularly in the extended customer journey comprising the overall customer experience (Lemon and Verhoef, 2016). Customers have to perform roles at each stage of the customer journey (prepurchase, purchase, postpurchase). Customers have a portfolio of scripts to learn and a critical situation may occur at any time. Companies should consider reactive training as a point of recovery

between employees and customers. Front-line employees should follow four steps: (1) Create a relaxing setting so that the customer is in a positive or neutral emotional state by using language such as “I’m here to help you; everything will be okay” or “Don’t worry, I will explain everything to you; it will be really easy.” Such simple words have a positive influence on customers’ learning processes (Nicod and Llosa, 2018). (2) Identify which part of the process led to a request for assistance. (3) Check that the customer masters the other parts of the process that they have not mentioned. (4) To end the discussion, describe other channels through which customers can obtain information independently (mobile application, website, signage).

Companies should develop systems to measure and track customer script proficiency. Firms spend a great deal of resources on monitoring customer satisfaction (e.g., questionnaires and net promoter scores). Customers are the beneficiaries of service encounters, but they are also coproducers. We therefore encourage companies to develop tools to capture customer performance as partial employees. Service providers should be able to identify and help customers who are not contributing correctly. There are many such customers, because populations in Western countries are aging and the prevalence of IT technologies can make service encounters more complex. The digital gap is increasing and whether customers are able to coproduce is a hot topic.

Limitations and Future Research

Our paper exhibits a number of limitations. The first of these is our field of experimentation. In an IKEA store, customers are deeply involved in producing services. They are called upon to perform many cognitive and physical tasks that may prove difficult for some of them. We should replicate this study in a hedonic context or a less difficult coproduction system. In the same way, this research took place in a physical store. We should consider the effect of

proactive and reactive training in online shopping contexts. When can one train customers online? Customer orientation and customer coproduction are really different in cyberspace. Technological readiness appears as an important factor in performance (Parasuraman and Colby 2007). Reactive training may be more instantaneous with chatbox technology.

Next, we developed a methodology to measure script proficiency by observation. This method involves four stages: identifying the expected script, establishing indicators, observing these indicators, and calculating the script score. The company validates the process and the results. Though this methodology can be generalized, the measure itself is context-related: It reflects the coproduction system of a single company. In this research, observations require much effort and time because researchers physically follow each customer. Technologies (camera, for example) could lead to automated observations, even if this method raises serious questions about customer privacy.

Meanwhile, we should consider these relationships from a temporally dynamic perspective. In this research, we focus on training and its influence on script proficiency; this impact should be considered over time. Proactive training may only influence script proficiency the first time a customer receives it, for its impact may then disappear or become negative.

Finally, our research focuses on a very specific type of proactive training, one in which customers were trained at the beginning of their visit. First, this pre-entrance attention before customers start shopping may have an influence that confounds the effects of proactive training. Is it the proactive training or the attention at the beginning of the visit that influences script proficiency? Then, customers may receive this proactive training at home, at work, or even wherever they want with mobile phones. Do we obtain the same results if the proactive training type varies? In the same way, we just tested two opposite situations: proactive training before the visit and reactive training upon request. We can imagine intermediary

solutions in which employees detect customers in trouble and proactively propose their assistance. Which of these methods of administration is most effective? Are some combinations of medium and/or context better than others? Similarly, companies may adopt a range of these solutions. New technologies are helping to develop the nature, range, and intensity of customers' coproduction roles; they are also injecting greater diversity into the available methods used to train them to master these new roles. Robots, mobile apps, drones, and smart trolleys are offering new innovative solutions to help customers and change their in-store experience.

CONCLUSION

Our research contributes to the study of customer training by comparing the influence of reactive training with the influence of proactive training on retail service outcomes. We conceptually distinguish these two types of training, and test their influence on script proficiency, measured by observations of customer script, from the company point of view. Our empirical study indicates that when customers are trained proactively, their script proficiency increases. Conversely, customers who receive reactive training are customers with a very low script proficiency, and in the end, a lower total sales per customer. Yet, reactive training remains important to avoid critical situations.

When script proficiency increases, customers spend more money; when it decreases, they spend less money. However, they are not more or less satisfied. Developing proactive training is an opportunity for a company to increase the amount of sales per customer without (at least) decreasing customer satisfaction. These findings lay the emphasis upon the main issue regarding coproduction and customer training. If customers are considered to be a partial employee, they are also the beneficiary of the store experience. They should not be limited to someone who simply receives instructions, like a soldier in boot camp. So,

companies should look for a balanced situation. They should question their desired script and include a customer perspective in its design. How can one increase the value for both customers and retailers? Under which conditions may training create satisfaction and sales at the same time?

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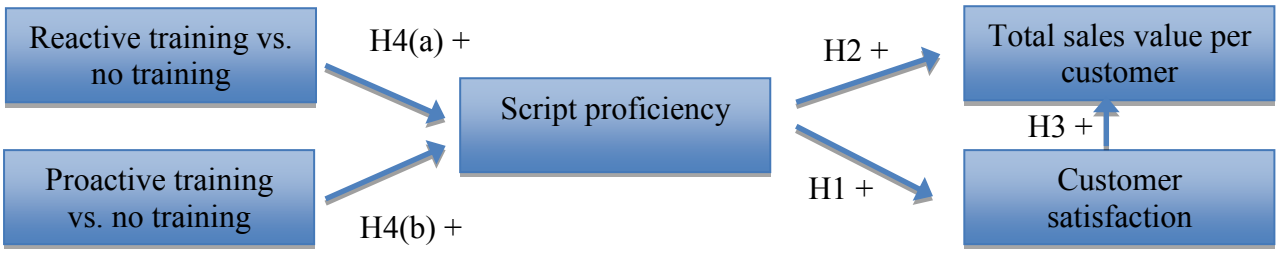
Figure 1: A proposed model comparing proactive and reactive training



H5: Proactive training – Reactive training on script proficiency

Figure 2: Study protocol

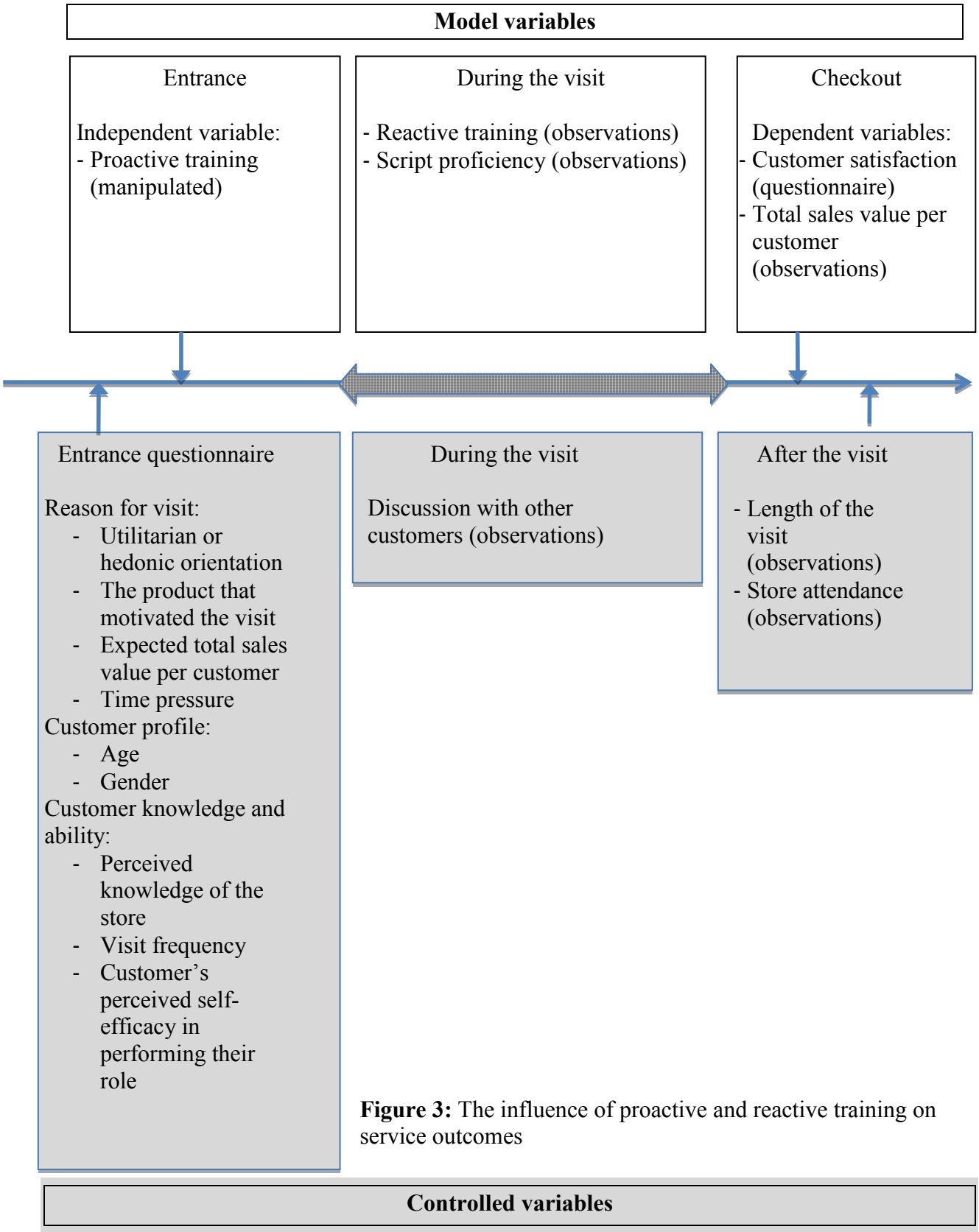


Figure 3: The influence of proactive and reactive training on service outcomes

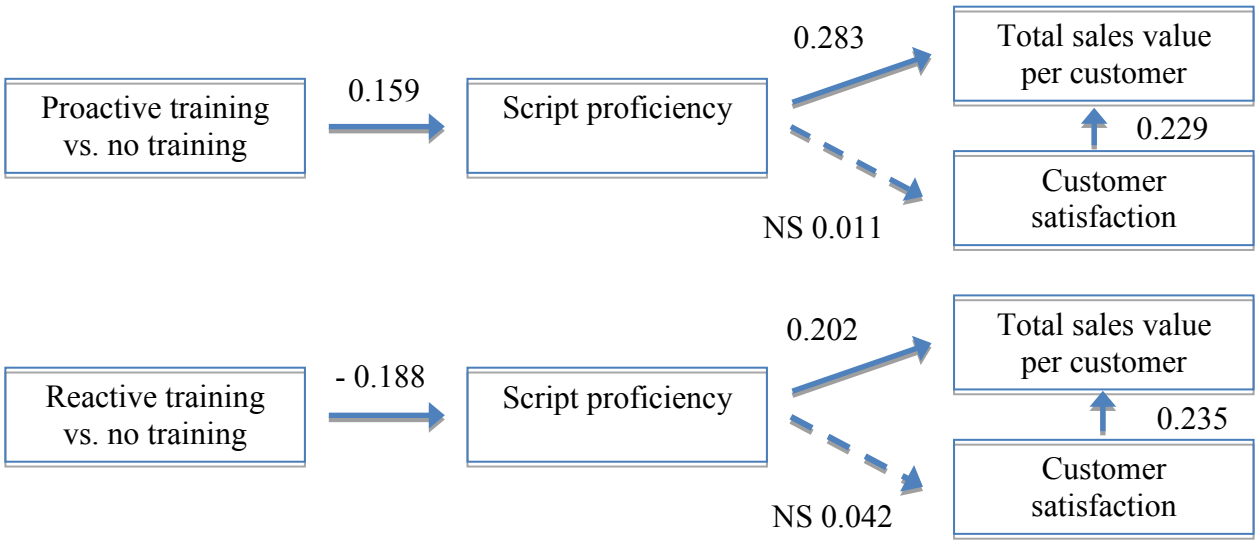

Proactive training vs. no training
0.159
Script proficiency
0.283
Total sales value per customer
0.229
Customer satisfaction
NS 0.011
Reactive training vs. no training
- 0.188
Script proficiency
0.202
Total sales value per customer
0.235
Customer satisfaction
NS 0.042

Figure 4: The evolution of script proficiency before and after reactive training compared to customers without training

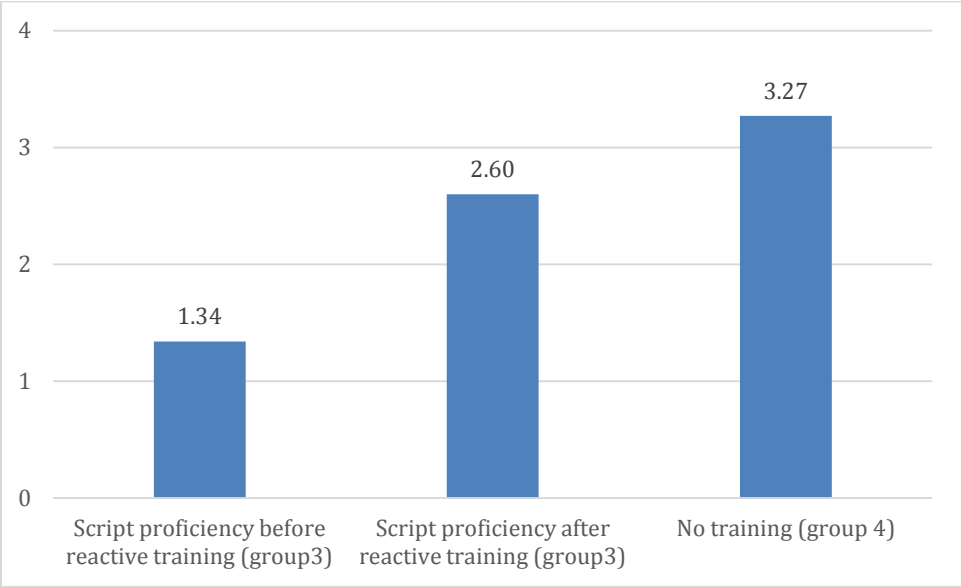


Table 1: Differences between proactive and reactive training

	Proactive training	**Reactive training**
Purpose	Increasing customers' global knowledge and skills	Solving a specific problem in customer coproduction
Content	Wide-ranging and exhaustive	Focused and partial
Initiator	Service provider	Customer
Emotional context	Positive or neutral	Neutral or negative

Table 2: Sample structure

		Proactive training	
		Yes	No
Reactive training	Yes	N = 16 (Group 1) Reactive + proactive group	N = 61 (Group 3) Reactive training group
	No	N = 248 (Group 2) Proactive training group	N = 162 (Group 4) Group without training

Table 3: Appropriate and inappropriate behaviors in IKEA script

Appropriate behaviors	**Inappropriate behaviors**
Go left on entering the store. Use shortcut without losing way. Take a yellow bag or a trolley. Pick up a sales tool (pen, rule, list, catalog). Contact employees for yellow label pickup or product information. Use self-checkout.	Go right and proceed in reverse. Get lost on first floor. Get lost on second floor.

Table 4: The results per training group

		N	Mean	Std. deviation
Script proficiency	No training	162	3.27	1.58
	Reactive training	61	2.60	1.67
	Proactive training	248	3.90	2.01
	Total	471	3.51	1.88
Customer satisfaction	No training	162	4.98	1.49
	Reactive training	61	5.11	1.51
	Proactive training	248	5.18	1.24
	Total	471	5.10	1.37
Total sales per customer	No training	162	2.78	1.77
	Reactive training	61	3.34	1.88
	Proactive training	248	2.89	1.70
	Total	471	2.91	1.75

Table 5: The results with ANOVA

		Sum of squares	Df	Mean square	F	Sig.
Total sales per customer	Between groups	13.861	2	6.931	2.253	0.106
	Within groups	1,439.473	468	3.076		
	Total	1,453.335	470			
Customer satisfaction	Between groups	3.787	2	1.893	1.002	0.368
	Within groups	883.874	468	1.889		
	Total	887.661	470			
Script proficiency	Between groups	97.475	2	48.738	14.464	0.000
	Within groups	1,576.931	468	3.370		
	Total	1,674.406	470			

Table 6: Scheffe's post hoc tests on script proficiency means

(I) Training	(J) Training	The mean difference of script proficiency (I-J)	Std. error	Sig.
No training	Reactive training	0.67285	0.27575	0.05
	Proactive training	-0.62792	0.18544	0.003
Reactive training	No training	-0.67285	0.27575	0.05
	Proactive training	-1.30077	0.26234	0.000
Proactive training	No training	0.62792	0.18544	0.003
	Reactive training	1.30077	0.26234	0.000

Table 7: Comparison of the model comparing proactive training vs. no training and the model comparing reactive training vs. no training

		PLS-MGA	Parametric test	Welch–Satterthwaite test
	Path weight differences	P-value	P-value	P-value
Training – Script proficiency	**0.348**	**0.000**	**0.000**	**0.000**
Satisfaction – Total sales per customer	0.006	0.542	0.939	0.941
Script proficiency – Total sales per customer	0.076	0.171	0.347	0.341
Script proficiency – Satisfaction	0.033	0.662	0.673	0.681

Appendix 1: Proactive training script

Good morning, and welcome to our IKEA store!

I will take 2–3 minutes to introduce the store to you so that you have the best possible experience with us.

1) Organization of the store

Our La Valentine IKEA store is organized on two floors (display a map of the store).

Upstairs, you should go to the left, where you will take in the exhibition area. You can experience different ambiances there and draw inspiration for your future projects (such as living room, kitchen, office, dining room). The coffee bar and the restaurant await you if you're hungry when you're done. There are no trolleys in this area; it is a journey for the imagination! If you really need to pick anything up, yellow bags will be at your disposal (show a yellow bag and a trolley).

On the first floor, you will find all the accessories you need to decorate and furnish your home (decoration, kitchenware, curtains, wall hangings, lighting, etc.). Trolleys will be available on your right as soon as you reach the bottom of the stairs.

Just before the cash desks, you will find the pickup point for larger items and a self-service area where you can collect your purchases. We will come to that later.

If you want to save time, IKEA also offers you a number of shortcuts around the store.

2) The concept of self-service.

At our IKEA store, we want you to save money; our furniture is cheaper thanks to you. During your visit, we will ask you to contribute to this. If you are interested in a piece of furniture, look at the label. If it is yellow, please contact a salesperson, who will be happy to help you. A member of the IKEA team will then help you with this product just before the cash desks, where your order will be prepared quickly.

If the label is red, note the references (aisle, shelf) using a pencil and paper. You will be able to find your product in the self-service area at the end of the route using this reference. Just before the self-service area, you will have suitable trolleys where you can take your products on your own.

Everything has been designed to make your experience as simple, enjoyable, and efficient as possible.

IKEA

Appendix 2: Observation table

Date: Login name:

The visit begins at:

The visit ends at:

Observed behaviors		Score
Once upstairs, the customer goes:	To the left	1
	To the right	-1
	Downstairs	0
She/he contacts employees to improve her/his script, e.g., to locate in the store (different areas…) and the processes linked with tags, use of trolleys, etc.	Yes	Reactive training
	No	0
She/he contacts employees for yellow label pickup	Yes	1
	No	0
She/he takes a bag or a trolley	Yes	1
	No	0
She/he takes sales tools	Yes	1
	No	0
She/he takes shortcuts correctly	Yes	1
	No	0
She/he makes mistakes in her/his route around the first floor	Yes	-1
	No	0
She/he makes mistakes in her/his route around the second floor	Yes	-1
	No	0
She/he uses the self-checkout	Yes	1
	No	0

Appendix 3: Tables of control variables

- **Metrics control variables (means tests)**

	Means			PT vs. WT	RT vs. WT
	Proactive training (PT)	Reactive training (RT)	Without training (WT)	P-value	P-value
Time pressure	61.83	68.08	55.99	0.307	0.213
Self-perceived knowledge of the store 1	1.66	2.05	1.84	0.063	0.166
Self-perceived knowledge of the store 2	5.65	5.48	5.37	0.066	0.564
Self-perceived knowledge of the store 3	5.25	5.35	5.42	0.255	0.574
Utilitarian dimension 1	5.3	5.83	5.84	0.030	0.954
Utilitarian dimension 2	5.5	5.94	5.87	0.055	0.727
Utilitarian dimension 3	5.42	6.02	5.66	0.240	0.082
Hedonic dimension 1	2.9	2.56	2.65	0.273	0.649
Hedonic dimension 2	3.08	2.6	2.71	0.077	0.634
Hedonic dimension 3	2.83	2.33	2.59	0.093	0.207
Customer's perceived self-efficacy in performing their role 1	6.12	6.03	6.11	0.970	0.621
Customer's perceived self-efficacy in performing their role 2	5.84	5.49	5.65	0.205	0.298
Customer's perceived self-efficacy in performing their role 3	5.89	5.51	5.7	0.175	0.164
Expected total sales value per customer	49.03	65.2	59.8	0.531	0.768
Frequency of visits	12.01	11.92	11.5	0.772	0.836
Store crowdedness	2,892	2,802	2,792	0.733	0.818

- **Nominal control variables (chi-square test)**

	Proactive training vs. without training	Reactive training vs. without training
	P-value	P-value
Gender	0.255	0.519
Age	0.339	0.236
Product that motivates the visit	0.470	0.250

There are no significant differences for any of the control variables between groups.