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Lionel Nicod, Sylvie Llosa

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Nicod Lionel, Llosa Sylvie (2018)

Comment former le client son rôle de coproducteur?

Etude de l'influence de la formation et de ses caractéristiques sur les bénéfices de la coproduction. Recherche et Applications en Marketing Volume: 33 issue: 4, page(s): 50-77

How should customers be trained in their role as coproducers? The influence of training and its characteristics on the benefits of coproduction

Abstract

This research examines the effect of customer training on the customer's role during service encounters. We examine its influence on coproduction outcomes from the standpoint of both the company (productivity) and the customer (customer satisfaction). The analysis of the influence of customer training is implemented in two stages. First, we establish that customer training improves the company's productivity without decreasing customer satisfaction. With this verified, we consider the content of training (cognitive vs. cognitive and affective) and the medium deployed (employees vs. digital). We then establish that training increases productivity more when its content is both cognitive and affective, whereas the medium has no effect. Conversely, when training is undertaken by employees, customer satisfaction is higher, while training content has no effect on this variable. Results provide guidelines for enhancing the benefits for both companies and customers.

Keywords

Customer training, coproduction, productivity, satisfaction.

How should customers be trained in their role as coproducers?

The influence of training and its characteristics on the benefits of coproduction

Introduction

In 1916, Clarence Saunders came up with the idea of self-service at his Piggy Wiggly grocery store. It was a concept that eventually become one of the economic foundations of mass retail. Self-service is a striking illustration of customer coproduction in relation to services and its influence on the company's productivity. Coproduction is defined as the set of tasks that the customer must perform to produce the service. Today, new technologies are increasing and multiplying the possibilities for coproduction. Companies now enable customers to be more active in the production of the service: they can scan items in supermarkets, check their bank accounts or download boarding passes on their mobile phones. This proliferation of customer tasks is aimed at significantly reducing business operating costs by reducing the time customers' spend with company employees (Meuter et al., 2005). To encourage customers to participate, companies emphasize the greater customer satisfaction thereby derived. By participating they can save time and money and increase their feeling of control.

However, increased participation does not always result in higher productivity for the company or satisfaction for the customer (Solomon et al., 1985; Bateson, 2002). Customers need to become proficient in their new tasks (Bateson, 2002), and service providers need to explain to customers what to do when they make use of the service. This transfer of information is an indispensable prerequisite for the success of coproduction. Training is one possible way of organizing this sharing of knowledge and of teaching customers about their role as coproducer (Payne et al., 2007). How then should customers be trained?

This question remains unexplored (Larivière et al, 2017). Among the avenues of research envisaged, Hibbert et al. (2012) suggest analyzing the performance of different types of learning and training. The first contribution of the present paper is thus to examine, for the first time, the influence of training provided prior to the service encounter, along with some of its characteristics, on the outcome of coproduction. Such training seeks to socialize customers prior to the service provision. It is characterized by its transmission medium (human or digital) and its content (cognitive or cognitive + emotional). The second contribution of the research is to look at the results of coproduction from two standpoints: on the one hand, that of the company through the productivity of frontline employees and, on the other, that of customers through their satisfaction. Can the training simultaneously increase these two benefits or at least increase one without diminishing the other? This question is all the more

important because it is controversial. Anderson et al. (1997) argue that the company's productivity and customer satisfaction evolve in opposite directions. Conversely, Ben Mimoun et al. (2017) propose that in this digital era they are mutually compatible.

To answer these different questions, the paper adopts a traditional approach. The concepts are first clarified by means of a literature review. Coproduction is defined on the basis of the literature on services and training through the theoretical framework of socialization. Once the concepts are specified, a quantitative methodology involving 557 respondents, alternating questionnaires and observations, was adopted. The data is analyzed in two stages. First, an overall comparison is made between customers who have undergone training and untrained customers. The results show that training increases frontline employee productivity without decreasing customer satisfaction. Secondly, a more detailed study of the effect of the characteristics of the training (content and medium) was carried out. The results show that when the company implements customer training, cognitive and emotional content together is more effective than cognitive content alone for improving productivity. The medium (human versus digital) does not make any difference to productivity. Conversely, the medium does impact satisfaction: training given by an individual person generates a higher level of satisfaction than training through a digital medium. The type of content, however, has no effect on satisfaction. The paper concludes with a discussion of the implications of the research, along with its limitations and possible future development.

The influence of coproduction on the benefits is dependent on the customer's ability to produce the service

In 1977, in his paper "Breaking Free from Product Marketing", Shostack emphasized that service is a process from which "the customer cannot be excluded". Customers are therefore considered to be a production factor of the service as partial employees of the organization (Mills et al., 1983; Mills and Morris, 1986; Vargo and Lusch, 2004). Their work, termed coproduction, is defined as the roles they must take on for the service to be produced (Solomon et al., 1985). These roles cover a set of standardized behaviors that customers must adopt as actors in the service encounter. The company defines these roles through scripts (Orsingher, 2006) and incorporates them into a standardized process (Shostack, 1984). By learning their roles, customers enable the service to be produced (Kelley et al., 1990). But customers are not only a factor of production, they are also the recipients of the service. The

company must therefore respect this status when developing the customer's tasks, which are incorporated into a more complete experience for the consumer.

Coproduction by the customer: a source of benefits for the company and the customer

Coproduction brings advantages to both parties in the arrangement (Grönroos et Voima, 2012). If the customer carries out his or her role properly, the transfer of tasks from employees to the consumer is likely to be beneficial for both the customer and the company (Bitner et al., 1997; Solomon et al., 1985). For the company, these benefits can take various forms, such as improving the chances of success for innovations (Leclerq et al., 2016) and reducing production costs (Eiglier et al., 2010; Lovelock and Young, 1978). In the present study, we limit ourselves to this second aspect. In the context of digitization, the transfer of tasks, usually devolved from employees to consumers, is a strong trend (Bitner et al., 2000; Bitner et al., 2002; Dabholkar, 1996; Meuter et al., 2005; Reinders et al., 2008). Furthermore, this type of transfer concerns many more customers than those involved in the development of new products and services. Thus, the more work the customer takes on, the more the front-line staff are relieved of certain tasks. In principle, employees can then serve more customers in less time, or even carry out other related tasks, thereby increasing productivity. Productivity is defined as the capacity with which the inputs to the service (resources) are transformed into outputs (Anderson et al., 1997; Ben Mimoun et al., 2017). This increase in frontline employee productivity, through the transfer of tasks to the customer, then increases the profitability of the company: either fewer employees are able to generate the same turnover, or the same number of employees can achieve a higher turnover.

On the customer side, we choose satisfaction as a measure of the benefit of the coproduction. Research has shown that coproduction has significant influence on other concepts, such as trust (Morgan and Hunt, 1994) or customer engagement (Palmatier et al., 2009). But customer satisfaction is the benefit most frequently found in the literature on coproduction. It is considered to be a pivotal variable, and an antecedent of trust (Johnson and Grayson, 2005) and engagement (Oliver, 1999). It is a direct measure, both transactional and relational, of the benefit created for the customer. It thus perfectly reflects frontline employee productivity, which is a measure of the immediate benefit to the company. Better c-production for the customer results in greater satisfaction (Yim et al., 2012), and good coproduction increases the probability that the customer will achieve his objectives (Bitner et al., 1997).

The effects of coproduction thus stem from a balanced sharing between the company and the customer. The company seeks to increase both its own productivity through the productivity of its front-line staff and customer satisfaction. Anderson et al. (1997) find that these two variables move in the opposite direction: an increase in the company's productivity goes hand in hand with decreased satisfaction in terms of services. But what about the digital era? Ben Mimoun et al. (2017) find a positive relationship between these two concepts in the specific context of the use of a virtual agent. This open question suggests that the benefits to the company and to the customer should not be evaluated independently but together. Thus, coproduction that increases customer satisfaction but lowers the company's productivity, or the reverse, would not result in a higher overall level of performance. For our purposes, coproduction will be deemed better when it (1) simultaneously increases both productivity and satisfaction, or at least (2) results in unchanged satisfaction and increased productivity, or in (3) constant productivity and increased customer satisfaction.

The ability of the customer to produce the service is a necessary condition for the growth of the frontline employee productivity and of customer satisfaction

The positive influence of coproduction on the company's productivity and customer satisfaction strongly depends on a prerequisite, namely that the customer is able to carry out his role (Dong et al., 2014). The customer's mastery of his role is an antecedent of coproduction underlined by most authors (Bateson, 1985; Bitner et al., 1997; Bitner et al., 2002; Larsson and Bowen, 1989; Lovelock and Young, 1979; Meuter, 2003; Meuter et al., 2005; Mills and Morris, 1986; Payne et al, 2007; Yi and Gong, 2013). Thus a high-level coproduction system in which the customer does not understand or master the role would be counterproductive for the company (Bateson, 2002), for it would lower the productivity of frontline employee engaged in compensating for customers' shortcomings (Hsieh et al., 2004). It would also create dissatisfaction for customers (Solomon et al., 1985). The company needs therefore to help customers, and make them competent and capable of adequate mastery of the service script (Payne et al., 2007), defined as "the set of objects and actions that constitute the service encounter, the order in which the actions take place, the actors who carry out the actions and their typical role, the environment in which the encounter is produced, and the desired result" (Orsingher, 2006).

Customer training: a way to socialize customers and improve their coproduction

Customer training: definition and relation to similar concepts (learning, socialization and education)

Various authors are in agreement that the service provider must train customers so that they are able to play their role correctly. In 1987, Eiglier and Langeard (p. 46), followed later by other authors (Bateson, 1985; Mills and Morris, 1986; Payne et al., 2007) insist that “participation cannot succeed unless customers are trained.” Successive authors use a variety of terms interchangeably – learning (Hibbert et al., 2012), socialization (Goudarzi and Eiglier, 2006), training (Goodwin, 1988) and education (Vargo and Lusch, 2007) – to describe these skills. These concepts, however, need to be differentiated.

Learning is an individual process. It may be defined in psychology as “an enduring change in behavior, or in the capacity to behave in a given fashion, which results from practice or other forms of experience” (Schunk, 2012). Change and its lastingness, stemming from experience, thus constitute three criteria for defining the learning process. In the area of services, Hibbert et al. (2012) conceptualize learning as an individual process controlled by the customer. Through this process, he becomes able to be an effective resource integrator. Customers progressively understand how to use the resources available to them. By improving the actions, they perform they create benefits both for themselves and for the company. In psychology, various approaches have been used to analyze the learning process. Behaviorism (Pavlov, 1927; Skinner, 1969) addresses it through the stimulus-response model that leads to the conditioning of the subject. In contrast to behaviorism, constructivism (Piaget, 1952) takes a cognitivist approach to learning, which is accomplished through the active construction of the individual. People learn by absorbing the situations they have experienced and by adapting in accordance with how they assimilate information. Complementary to this approach, authors such as Lev Vygotski (1934) or Bandura (1971) take account of the social dimension of learning, thus giving rise to socio-constructivism. According to this theory, learning is based on a personal process of construction, but is carried out in a social context. The individual constructs his knowledge in relation to others. Management sciences have thus favored the socio-constructivist approach, since it is more appropriate for explaining learning within companies, which are essentially social entities.

Within this perspective, the literature on services uses the concept of socialization to understand how customers appropriate their roles. Kelley et al. (1990), drawing on Ward (1974), define socialization as the process by which the customer develops skills, knowledge

and attitudes relevant to the service encounter. Although, in marketing, this concept has often been used for studying parent-child relationships, Gourdarzi and Eiglier (2006) point out that its scope is not limited to this particular relationship. Socialization may be envisioned at an organizational level on the basis of the relationship between an individual (the customer) and an organization (the service provider). Guo et al. (2013) identify three dimensions of the concept: clarity of role, mastery of tasks, and congruence between the objectives of the customer and of the company. Socialization can thus occur simply through the customer unobtrusively and informally observing other customers (Evans et al., 2008). It can also form part of a deliberate strategy implemented by the company, which these authors characterize as education. In the field of sociology, Durkheim (1922) defines education as a methodical and explicit form of socialization, the purpose of which is to transmit codes and values. When the company sets up a system to socialize customers, it is thus educating them. Such education is then based on training, that is, activities directly related to the acquisition of the appropriate knowledge, skills and attitudes for immediate or short-term application (Kraiger et al., 1993; Zhao et al., 2008). Education, in contrast to training, is broader and more encompassing (Burton, 2002). Customer training is therefore defined here as a deliberate and targeted process carried out by the company with a view to socializing customers so that they are able to act appropriately in the short term.

Please insert **Table 1: The interlinking of the concepts of learning, socialization, education and training**

Customer training can take place at different times: variously before, during or after the service encounter. In this paper we focus on training for socializing customers received prior to the service provision. It aims to make them aware of the role they will play (clarification of the role), help them carry out the tasks to be performed (mastery of tasks) and show them the compatibility between their objectives and those of the company (congruence of objectives). This training before the service encounter can be done in various ways (web site, advertising, in situ). For better control of the experimental conditions, the present study is concerned solely with the training delivered when the customer arrives at the service location.

Characteristics of the training

The influence of the characteristics of training on the customer's learning process is an unexplored field of study that needs to be further developed (Larivière et al., 2017; Hibbert et al., 2012). With regard to these characteristics, the literature emphasizes the importance of comparing the influence of training according to its content and its source (employees, electronic information system, etc.) (Burton, 2002).

Customer training is characterized firstly by its content. Although it can be characterized in various ways (such as the amount of information provided, its quality, or its duration), in the present study content is examined according to the cognitive and/or emotional elements comprising it. These characteristics directly echo the levers identified in the literature for developing customer coproduction, namely role clarity, risk and motivation. The cognitive aspects of content are intended to explain to customers the tasks they will need to perform during the service encounter and to clarify their role (Larsson and Bowen, 1989). Such clarification is a major concern for companies, because lack of clarity as to their role is one of the most important obstacles to quality coproduction (Lovelock and Young, 1979; Meuter et al., 2003 Mills and Morris, 1986). The first level of training therefore consists in providing customers with complete and easily assimilable information about their role (Goodwin, 1988). In addition to this "cognitive" content, the company can add affective elements such as messages of encouragement ("it's easy, you'll manage fine") or of customer valorization ("a customer like you will have no problem"). According to the theory of social support this type of communication motivates the customer, increases the sense of personal control, facilitates stress management and enhances the feeling of being valued by the service provider (Adelman and Ahuvia, 1995; Albrecht and Adelman, 1987). Affective content thus has a twofold purpose. First, it aims to encourage the customer and reduce the risk of perceived failure (Beck and Crié, 2015). And second, it facilitates the emergence of positive emotions (Beck and Crié, 2015). In the present study, the content of training can be either purely cognitive or cognitive and affective.

Training is also characterized by the methods it uses. Hibbert et al. (2012) define learning resources as the set of human and material resources available to customers and which provide a medium for their training. In the literature on services, these methods echo the system through which the service is constructed – sometimes called *servuction* – and the elements that comprise it (Eiglier and Langeard, 1987). The customer interacts with the physical medium (hardware resources), front-line staff, and other customers who are present at the time of the service. These three factors therefore seem particularly relevant to the aims

of our research. More generally, two groups of learning methods may be distinguished. The first is social, in that involves front-line staff and other customers (Albrecht and Adelman, 1987; Beck and Crié, 2015). The second, also termed the physical medium, is environmental, and is based on the “servicescape” (signage, digital media, etc.) (Beck and Crié, 2015; Bitner, 1992). While the physical medium, front-line staff and other customers are all means of learning, other customers do not constitute a training method, since they are not controlled by the company. They therefore cannot be viewed as a medium provided by the company. Front-line staff are seen as the key resource for helping customers understand their role and for enhancing their performance (Auh et al., 2007; Bateson, 2002; Bitner et al., 1997; Larsson and Bowen, 1989; Mills and Morris, 1986). The physical medium is also a means of training (Bateson, 2002; Bitner, 1992; Bitner et al., 1997). The literature usually views the physical medium in terms of customer orientation and as a source of behavioral learning, in which the customer is conditioned by signage (Liu et al., 2010; Titus and Everett, 1996). However, the development of digital tools (Beck and Crié, 2015) makes it possible to conceive of new applications (Houliez, 2010) in terms of training. We will therefore consider two training mediums, one human, the other digital.

The influence the characteristics of training on the frontline employee productivity

The effect of the existence of training compared to its absence

The use of customer training when the service begins should increase customers’ capacity to coproduce the service on their own (Groth, 2005; Payne et al., 2007; Retana et al., 2015). For an equivalent turnover, as customers’ skills improve, there should less reliance on staff. Hence frontline employee productivity, defined as the capacity to transform an input (time spent with the employee) into output (turnover), improves. Conversely, without any training, customers are less effective in their role and their coproduction leads to a perceived higher workload for employees (Chan et al., 2010; Hsieh et al., 2004). We can hypothesize that, whatever the type of training used, it increases customers’ productivity compared to a situation in which they have received no training.

H1: Customer training positively influences frontline employee productivity.

Training should also lead to greater customer satisfaction. Solomon et al. (1985) argue that the level of satisfaction is influenced by customers’ ability to carry out the script they are

given. When customers have been socialized, the quality of their coproduction improves (Dellande et al., 2004). Their satisfaction, defined as a varying psychological state resulting from the service experience (Vanhamme, 2002), therefore increases (Kelley et al., 1990). We thus put forward the following hypothesis:

H2: Customer training positively influences customer satisfaction.

The effect of the training characteristics

If customer training improves the overall benefits as we expect, then we need to compare the effect of different content and training methods on frontline employee productivity and customer satisfaction. The content of the training can be either cognitive (the customer's role is explained) or cognitive and affective (the customer's role is explained and the customer is reassured and/or encouraged). The literature shows that cognitive training makes the customer's role clearer (Goodwin, 1988). The affective components emphasize the value of the customer, encourage and reassure him with regard to his ability to participate. They thereby reduce perceived risk (Lovelock and Young, 1979; Meuter, 2003; Zhao et al., 2008). The customer is consequently is less doubtful about his own skills (Meuter et al., 2005), and becomes more autonomous and increases frontline employee productivity. The affective components also contribute to the emergence of positive emotions (Adelman and Ahuvia, 1995), which are antecedents of the customer's effectiveness in producing the service (Nicod and Llosa, 2016). We thus hypothesize:

H3(a): Cognitive and affective training content results in a higher frontline employee productivity than cognitive content alone.

In addition to their influence on productivity, affective elements should, through the positive emotions generated, also improve satisfaction (Lichtlé and Plichon, 2005). Conversely, the decrease in perceived risk linked to affective elements also limits negative emotions (Adelman and Ahuvia, 1995), which contribute to dissatisfaction. We therefore hypothesize that:

H3(b): Cognitive and affective training content results in a higher level of customer satisfaction than cognitive content alone.

Whether they involve employees or a physical medium, these two methods are presented as factors influencing customers' coproduction. The literature emphasizes that certain elements

of the physical medium (e.g. films giving safety instructions in aircraft) influence the customer's coproduction by transmitting the information necessary for the performance of his tasks (Bitner 1992; Hooper et al., 2013). At the same time, the central role of front-line staff in the service encounter is a recurring element in the customer training literature (Mills and Morris, 1986). This influence of training the personnel on frontline employee productivity may at first glance seem incongruous. But it should be remembered that such training takes place within a dynamic temporal framework; a customer trained at the beginning of the visit will have less need, or no need, for information during that visit and any subsequent visits. The social learning school of thought (Bandura, 1997; Howardson and Behrend, 2015) emphasizes the importance of the influence of human verbal input in convincing people that they are capable of performing a task and therefore for actually accomplishing it. In the literature on services, front-line staff are considered to be more convincing than physical methods. Hence our hypothesis:

H4(a): Training by an employee results in a higher level of frontline employee productivity than training through a digital medium.

The literature on services also highlights the influence of the front-line staff (Arnold et al., 2005 Keh et al., 2013) and of the physical medium (El Adly and Eid, 2016; Turley and Milliman, 2000) on customer satisfaction. Nevertheless, some studies hierarchize these effects. Arnold et al. (2005) show, by means of the critical incident method, that the level of staff support is the primary factor for creating very positive and very negative service experiences. They thus confirm the findings of Bitner et al. (1990). Staff are viewed as more influential than the physical medium. In the digital era, the findings from comparisons between employee-customer and digital technology-customer interactions in stores tend to confirm the overriding importance of the front-line staff. In a point-of-sale study, Keeling et al. (2013) show that relationships involving digital technology are perceived as less pleasant and more hostile than human relationships. We therefore hypothesize that:

H4(b): Training by an employee leads to a higher level of customer satisfaction than training through a digital medium.

Research methodology

To test these hypotheses, we used a two-step experimental design. First, we first measured the effect of training, as opposed to no training, on productivity (H1) and satisfaction (H2). We

then tested the effects of content (cognitive vs. cognitive and affective) and the training medium (human vs. digital) on trained customers (H3a, b and H4a, b).

Please insert **Table 2: Research questions, experimental design and controlled variables**

Study terrain

The study was carried out in an IKEA store. This terrain was chosen firstly because of company's economic model, which provides an excellent example of the need for adequate customer involvement to generate value by transferring tasks from the staff to customers (Johnson and Selnes, 2004). In this type of store, customers need to master numerous codes to coproduce effectively. It thus offers a favorable terrain for evaluating the influence of training at the outset of the visit on the customer's coproduction. Furthermore, the large and heterogeneous clientele (age, gender, socio-professional category) reduces any bias related to the type of people shopping at the store.

Control variables

The methodology requires controlling for variables that may skew the results. Interaction with other customers, which is a potential source of learning (Rosenbaum and Massiah, 2007), was controlled for. Similarly, the time spent interacting with strangers was observed and measured. The distribution of the sample between unaccompanied and accompanied customers was comparable in each scenario. We also controlled for customers' degree of expertise at the entrance to the store, since this is a factor that can change the amount of time spent with staff (Bateson, 2002). Other factors that may influence customers were also controlled for: the utilitarian or hedonic orientation of the visit (Babin et al., 1994), the type of purchase motivating the visit, the planned purchase amount, the frequency of visits, time pressure, gender, age, and the crowdedness of the store. The store management checked that our findings were representative of their usual clientele. Our analysis revealed that these variables do not have a problematic link with the manipulated variables.

Measures chosen

In order to increase the objectivity of the results and the validity of the data, most of our variables were measured by observation. Declarative methods (questionnaires) were used only for unobservable information. Following this logic and in accordance with the recommendations of Grönroos and Ojasalo (2004), frontline employee productivity was based on an objective, non-observed measure. An objective measure eliminates many biases even if it is more difficult to operationalize, for it requires measuring real inputs and outputs. Grönroos and Ojasalo (2004) identify two types of objective inputs and outputs: physical and financial. Combining these two types of input/output, they distinguish three families of possible productivity measures of service activities: a physical measure (physical input/output), a financial measure (financial input/output), and a mixed measure (financial input/physical output, or the reverse). The productivity of front-line staff is calculated in a mixed way as the ratio of the turnover generated and the time spent by customers with front-line staff.¹ The authors recommend having at least one financial element (income generated) in the output. Time spent with front-line staff is measurable by observation. Customer satisfaction is measured on a three-item 7-point Likert scale derived from the literature (Oliver 1980; Oliver and Bearden 1983; Westbrook and Oliver 1980). This scale captures both the affective and cognitive dimensions of the concept. The control variable “visit orientation” is measured on the basis of the Babin et al. (1994) scale. This last scale was the only one altered, with the items being adapted to the context and reduced from 15 to 10 following the questionnaire pre-test. Expertise is measured on a three-item ad-hoc scale to assess customer knowledge of the IKEA system and the specific store. The other control variables are evaluated on the basis of traditional closed-ended questions or data supplied by the store, such as the number of entries to the store as a measure of crowdedness.

A protocol favoring observation

The methodology alternates stages based on observation and stages using questionnaires and involves three main stages. In the first stage, the customer enters the store and is given an initial questionnaire to measure the control variables. Customers were selected at the entrance of the store, in accordance with a condition on accompanying persons, in order to neutralize their impact. Half of the customers surveyed were alone, the other half accompanied. In order

¹Since the time spent with the staff is the denominator and since this cannot be zero, the calculation is made as follows: $\text{purchase amount} / (\text{time spent with the staff} + 1)$. Thus productivity for a customer who has not approached any members of staff will be equal to the purchase amount. Time is measured in minutes.

to avoid self-selection bias, when the customer is given the first questionnaire, he does not know whether or not he will receive training. Following the initial questionnaire, half of the customers surveyed were randomly assigned to one of the training scenarios. These were constructed by varying the characteristics of the training (content and medium). The training script aims to socialize the customer through the three dimensions mentioned above. The scenario is developed on the basis of a literature review and interviews with experts from the store. Through the script (Appendix 1), the customer learns (1) his role, depending on the stage of the process (“walking around”, “taking a product”, etc.), (2) how to perform this role correctly (looking at the color of the product label so as to take the product in the right way, for example) and (3) that the objectives of the company and customer are congruent (“At IKEA we save you money and our furniture is cheaper thanks to you. We invite you to participate during your visit”). The training medium is either a person or a film shown on an iPad with the same training script. When it involves a person, the employee recites a previously learned script, together with photos of the store concerned. The same employee was always used so as to ensure stability in the experimental condition. His [her ?] voice was also used for the film shown on the iPad. When the medium is a digital tablet, the customer watches a film in which the same text is read out in voice-over and the same photos are used. The content of the training varies according to the script. There is a cognitive script and a cognitive + affective script. The cognitive script simply clarifies the customer’s role, explaining how to carry out the tasks effectively and that the objectives of the customer and the company are congruent. In the cognitive + affective script there is additional wording, the purpose of which is twofold. The first of these is to reassure and encourage the customer (“it’s child’s play”, “You’ll see, an IKEA visit, nothing easier.”). The second purpose is to make the customer anticipate having a positive experience (“You’ll really enjoy yourself”). The different scenarios were subject to conclusive manipulation checks carried out on 66 people (Appendix 2). Training at the beginning of the route through the store lasts on average two to three minutes. The other half of the sample is not trained and goes straight into the store. The second stage then begins. After being given the training scenario (or not, as the case may be), the customer is followed incognito throughout the visit. The time spent with front-line staff is timed and recorded on an observation grid. In the final stage, on arrival at checkout, customer satisfaction is measured. The purchase amount is noted. Customer visits lasted on average 45 minutes, with nearly 500 hours of observations being made overall. Some 80 individuals were involved in the study. Every customer was followed by a student using a very simple and precise observation grid (Appendix 3). The students themselves were trained prior to the

study. They first underwent a two-hour session explaining the observation protocol and were assessed on their theoretical grasp of it. They then underwent an hour-long in-store training session in small groups. Observations were made on a half-day basis, with the students in groups of 10-12. Ten competent individuals (teacher-researchers and PhD students) were in turn used to supervise them. Figure 1 summarizes the research protocol.

Please insert **Figure 1: a summary of the study protocol**

The sample

The sample comprised 557 observed customers.² Customers with young children and those who had come to purchase kitchens were discarded because of their specific characteristics. The customers observed were divided equally with regard to the two scenarios (trained customer/untrained customer). Each scenario has a similar proportion of accompanied and unaccompanied customers, which functioned as a control, as shown in Table 3.

Please insert **Table 3: Distribution of the sample according to training (yes or no) and the presence or absence of an accompanying person**

After measuring the overall effect of training on the benefits, the influence of the type of training was then investigated. The sample was constructed in such a way that the training varied according to its content and medium.

Please insert **Table 4: Distribution of the sample according to the training content and medium**

Results of the quantitative stage

Validation of scales

The scales were validated by the test and retest method. The sample was randomly divided into two subsamples of comparable size. An exploratory factor analysis (EFA) was conducted

² The initial sample consisted of 600 individuals, 43 of whom were lost track of by the observers and excluded from the study.

on the first subsample and a confirmatory factor analysis (CFA) on the second subsample (Parasuraman et al., 2005). The steps follow the scale validation carried out by Lichtlé and Plichon (2014): dimensionality of the scale (KMO test, Kaiser criterion, Cattell's test, Horn's parallel test) and verification of the quality of the scale (Cronbach's alpha, Jöreskog's ρ , convergent validity criterion). The same analyses were repeated on the second half of the sample in the CFA (retest phase). In these analyses, four items (two relating to the utilitarian dimension and two to the hedonistic dimension of the scale developed by Babin et al. (1994)) had to be removed from the 10 items selected following the pretest. The dimensions of the scales were then extracted by means of a principal components analysis and used in the rest of the study. The results are presented in Appendix 4.

Results of the study of the effect of training on overall benefits

ANCOVA tests were implemented to examine the influence of the manipulated variables (training, then the training characteristics: medium and content) on frontline employee productivity and customer satisfaction. We chose this procedure because of the nature of the variables (metric for the dependent variables and nominal for the independent variables) and in order to isolate the effect of certain variables (reason for the visit and expertise) positioned as covariables. The analysis was carried out in two stages. First, the effect of training on benefits was examined globally. Once the advantage of training customers was established, the analysis focused solely on trained customers in order to study the effect of the content and the medium on the dependent variables. Comparison between trained and untrained customers gives the following results.

Please insert Table 5: Influence of training on frontline employee productivity and customer satisfaction

Training before the start of the visit increases the productivity of front-line employee. The untrained group corresponded to an average productivity of 4.2 as opposed 5.02 for the group that received training ($p < 0.05$) (H1a confirmed). Training given to customers at the start of the visit increases their autonomy while leaving unchanged the amount they spend. It thus benefits the company. As regards customers, training has little or no impact, either positive or negative, on the level of satisfaction at the end of the visit ($p > 0.05$) (H1b disconfirmed). Untrained and trained customers have satisfaction levels of 5.09 and 5.13 respectively.

Training, taken as a whole, does not simultaneously improve both productivity and satisfaction. However, there is a definite advantage in training customers since overall it improves the benefits of the service encounter, in that it increases frontline employee productivity without reducing customer satisfaction.

Findings from the study of the influence of training characteristics on benefits

Hence if it is in the interest of the company to train its customers, what form should this training take? To answer this question, the second stage of analysis focuses solely on trained customers. It compares the influence on the dependent variables of cognitive training alone versus cognitive and affective training combined and of training given by employees versus training through a digital medium. Untrained customers are thus excluded from the analysis. The results are shown in Table 6.

Please insert Table 6: Influence of training content and medium on frontline employee productivity and customer satisfaction

For trained customers, combined cognitive and affective training increases productivity significantly more than cognitive training alone. Average productivity is 4.62 when the content is purely cognitive and 5.41 when it incorporates affective elements ($p < 0.05$) (H2a confirmed). The method adopted, however, has no influence on productivity. Average productivity is 5.12 for training by employees as opposed to 4.91 for digital training ($p > 0.05$) (H3a disconfirmed). As regards customer satisfaction, the findings are reversed. The training content has no effect on customer satisfaction, with averages of 5.06 for the cognitive group and 5.2 for the cognitive and affective group ($p > 0.05$) (H2b disconfirmed). Conversely, training by employees leads to increased customer satisfaction compared to a digital training. The average score is 4.96 for digital training and 5.32 for training provided by an employee ($p < 0.05$) (H3b is confirmed).

Please insert Figure 2: Graphical summary of findings

Theoretical and managerial contributions

Theoretical contributions

This research aims first of all to understand the advantages of coproduction from the standpoint of both the provider (productivity) and the customer (satisfaction). It shows how training early in the visit influences these benefits. By analyzing productivity on the one hand and satisfaction on the other, and explaining the overall effects of training, then of its characteristics (content and medium), our study clarifies the relationships, in complement to the existing literature (Hibbert et al, 2012).

Firstly, just one situation simultaneously increases productivity and satisfaction. This occurs when training is provided by the front-line staff. Apart from that, the analysis is rather more complex. In line with the conclusions in the services literature, we show that training customers raises the company's productivity. When the company explains the tasks to customers, they perform them better (Bitner et al., 2002; Meuter et al., 2005; Mills and Morris, 1986). This greater mastery of the tasks leads to greater customer autonomy and thus reduces the company's operational costs (Bateson 2002; Grönroos and Ojasalo, 2004). The productivity of frontline employees is increased and, as a result, the overall productivity of the service provided also increases (Grönroos and Ojasalo, 2004). Our study shows the increase in productivity derived from training customers does not detract from their satisfaction. This finding runs counters to the conclusions of some previous studies. For instance, Anderson et al. (1997) find that "the association between changes in customer satisfaction and changes in productivity is [...] negative for services". This first theoretical contribution, in line with the more recent and specific results of Ben Mimoun et al. (2017), is therefore particularly interesting. It underlines the compatibility of seeking simultaneously to increase these two variables, which are presented as irreconcilable by most authors.

While satisfaction does not diminish, neither does it increase with regard to customer training viewed as a whole. It is only by refining the analysis and distinguishing the medium and content of the training that certain effects become apparent. Thus, satisfaction increases significantly only in the specific case where the customer is trained by an individual person. Content, however, has no impact on satisfaction, contrary to what is suggested in the literature (Plichon, 1999). This counterintuitive result led us to carry out a qualitative ex-post study based on semi-structured interviews (interview guide in Appendix 6) with 12 IKEA customers, in order to better comprehend this phenomenon.³ In the interviews, customers

³ *Profile of respondents: 10 women, 2 men, aged between 18 and 57, students, office workers, senior managers and heads of companies. Since the question was specific, the saturation threshold was quickly reached (8 respondents), but we interviewed another four people as a precautionary measure.*

explained that they anticipated going through the store unassisted and receiving training only when they requested it: “At IKEA you have to manage on your own”, “The staff don’t approach you, and if I need help, I go and ask for it.” At the entrance of the store, the respondents expect to receive basic help in the form of “information panels, arrows on the floor, possibly TV screens or terminals”. They think a map of the store could be useful, along with written information about the procedure. In line with expectation disconfirmation theory (Oliver, 1980), the absence of training coupled with the information provided by the physical medium corresponds to customers’ expectations. This level of service, in conformity with their expectations, does not necessarily lead to a strong emotional response. It therefore has little impact on the level of satisfaction (see Ngobo (1998) for a full review). On the other hand, they do not expect to be trained by a member of staff at the beginning of the visit. Should such training occur it would exceed their expectations and would be viewed as ideal. Some customers say that such a practice “doesn’t go with IKEA, it’s not how they work.” They say that being welcomed by “a person who would explain the store” would be a very pleasant surprise that “they would certainly remember”. Such an unexpected experience would certainly add to their satisfaction at the end of the visit. But for them it would be “a dream that at IKEA is impossible”. One of the customers interviewed told us about the welcomers at Leroy Merlin, which would be “a wonderful idea but not consistent with the ambience of IKEA, where you basically go to get rock-bottom prices.” Receiving training by an employee would therefore be a pleasant surprise, which Vanhamme (2001) has shown has a positive impact on satisfaction. Training of this kind would qualify as a “plus” in Llosa’s (1997) tetraclass model. Its presence would increase satisfaction, but its absence does not diminish it. Our qualitative study is thus able to account for the results obtained in the experiment, but also to qualify them, since the positive effect of the training method on satisfaction can be partly linked to the context of IKEA.

A second theoretical contribution is that the findings reveal that the influence of front-line staff as a training medium is less pronounced than expected. Most authors view front-line staff as the supreme training medium (Bateson, 2002; Bitner et al., 1990; Bitner et al., 1997; Eiglier and Langeard, 1987; Larsson and Bowen, 1989) and consider that their impact is always greater than that of the physical medium. Our results confirm the influence of human contact for customer satisfaction. Training provided by staff also influences productivity, but its influence is not significantly greater than that of a digital medium. It is therefore necessary to qualify the unconditional superiority of front-line staff to the physical medium when considering productivity alone.

Our third theoretical contribution concerns the influence of the content of the training. Combined cognitive and affective training can achieve higher levels of productivity than cognitive training alone. Up until now, the literature has focused on explanations to be given to the customer so that he understands his role (Bitner et al., 2002, Meuter et al., 2005, Mills and Morris, 1986), but has paid little attention to the affective aspects of training. However, the introduction of psychological and affective elements into the content of the training – simple phrases of encouragement such as “You’ll have a good time”, “You’ll see it’s not difficult” or “It’s child’s play” – reassures the customer and reduces his perception of risk (Meuter, 2003, Zhao et al., 2008). Such elements thus increase productivity. On the other hand, surprisingly and contrary to what the literature suggests, the use of affective elements at the beginning of the visit does not increase customer satisfaction (Lichtlé and Plichon, 2005). Words of encouragement and reassurance at the outset of the route through the store do not seem to generate sufficiently strong emotions to persist until checkout and increase satisfaction. This result is nonetheless consistent with recent research on satisfaction. If overall satisfaction is measured when it occurs at the end of the experiment, the evaluation of time spent on training at the beginning has less influence than that of time spent on training at the end of visit (Chase and Dasu 2008; Verhoef et al., 2004; Vo Thi and Llosa, 2015). This difference is due to the recency effect (Ashcraft 2002; Murdock 1962), whereby individuals are particularly affected by events that have just happened. It is only when the training is given by humans that this pleasant feeling is salient and powerful enough to impact satisfaction at the end of the visit. In conclusion, the present study shows that the content of the training affects productivity and that its form – the medium used – affects satisfaction. These results can be explained by the very nature of the concepts. Productivity refers to a rational notion, reinforced here by observation-based and therefore objective measurement. Satisfaction, on the other hand, is more affective, experiential and subjective, and is probably more closely allied to the form of the training.

Managerial implications

The results of this research suggest that the training given to customers as a performance tool should to be adapted according to the company’s strategy. The impact on productivity of these few minutes of customer training at the outset of the visit is remarkable. We find that training customers in their role as coproducers increases their autonomy and reduces operational costs. The average time spent with staff decreases by 30% and the level of staff solicitation by 55%. Impressive though these numbers are, they are not surprising after

discussion with the store staff. They feel strongly that they are often asked the same questions (orientation, explanation of the color of the labels, etc.). If this information is given initially, the customer gains autonomy. Many service activities could identify the questions most frequently by customers with regard to their coproduction and could provide information on their roles in advance. Doing this would be possible in other contexts too. For example, a restaurant waiter could discreetly point out the location of the toilets when greeting customers, a DIY store or sports shop could provide a plan of the store layout at the entrance, a leisure park could welcome its customers with an information film on the service process, and so on. Depending on its strategy, the company will choose a suitable type of training. If its priority is cost control and a short-term transactional outlook, it will be in its interest to develop cognitive and emotional content delivered through a digital medium. Productivity will be increased without compromising satisfaction. If the company is looking for a deep and balanced customer relationship, it will focus on cognitive and emotional content imparted by an employee so as to increase customer satisfaction. The initial outlay will be an investment in the customer relationship, as Leroy Merlin did with the creation of Welcomers. Over and beyond its strategy (market domination through reduced costs, differentiation through the customer relationship, etc.), the company's positioning and image determine the tone that the training should take to motivate customers to follow it. For example, a brand like IKEA, with its advertising drawing on Swedish humor, could offer customers the experience of a "Swedish moment" at the entrance to the store. The more exclusive and elegant Nespresso brand might suggest becoming "an expert member of the club". This type of action, whatever the medium used (human or digital), could arouse customers' curiosity and induce them to undertake the training themselves. Once they are familiar with the role, customers will then only need reminders of the complex script elements or further training in the event of major changes to the service process. Such training should be made available to customers but not imposed on them, so as to avoid a saturation effect on those frequently visiting the point of sale.

Furthermore, these results lead to rethinking the role of front-line staff with a view to generating benefits for customers and the company. This issue is currently of capital importance, since digitization and customer autonomy are threatening many jobs (cashiers in supermarkets, for example). Customer contact with the employees is becoming less frequent. Yet such contacts are vital for creating a relationship with the company. The role of front-line staff therefore needs to be redefined in order to develop a greater relational connection with customers (Rafaeli et al., 2017). Many stores have employees who "wait" for customer

requests upon entry. Their role could be conceived more proactively. For instance, in the IKEA store where this research took place, the reception staff, instead of sitting behind a counter, could establish a connection with customers by going forward to meet them. They could: (1) orient customers according to their needs, (2) inform them of new features in the service process (changes in the store layout, new digital aids, etc.) or (3) remind them how to handle the more complicated stages in the process. During the visit, the role of the staff would also change. In the context of digitization, the reduced time spent explaining the service process, as a result of customer training, should not necessarily lead to an impoverishment of the relationship. On the contrary, this time freed up could be used to create additional value for customers, which could not be done by means of digital tools. For example, IKEA staff could use the time freed up to give advice to customers on furnishing their homes, thereby generating additional sales. Thus, basic actions or straightforward stages of the itinerary could be handled through interaction with digital tools. Key stages or cognitively or emotionally complex actions, on the other hand, would be devolved to front-line staff. The argument put forward in this research, therefore, is not to limit interaction with front-line staff in absolute terms, but only with those who create little value for the company and the customer. The company could then develop the points of contact with higher added value. In this respect, the staff would need to be recruited and trained to better respond to this reorientation in their role. Lastly, we recommend companies wanting a high level of customer coproduction to include encouraging messages into the training script, in addition to practical explanations. As well as understanding the service process, customers need to be reassured and look forward to a positive experience. A few words of encouragement take up little time and have a real impact.

Limitations and future research

This paper has a number of limitations related variously to the terrain, the simplicity of the model (the direct relationship between training and the dependent variables) and the characteristics of the training. These limitations could open up possibilities for future research.

As regard the terrain, while IKEA is an appropriate context for studying customer coproduction, this choice may influence the results obtained in several ways. IKEA's strategy involves delegating a large number of tasks to customers (delivery, assembly of furniture, etc.). Hence IKEA customers are in principle more receptive to the idea of participating. Their prior expectations of the quality of the services offered may be lower than for other service

providers. Thus, training by employees, which runs counter IKEA culture, seems to have surprised some customers in a positive way, possibly making them feel privileged compared to others. This surprise effect, which emerged from the qualitative ex-post study, would need to be deepened. It could also partly account for the findings regarding the training medium on satisfaction. Next, our choice of IKEA also affected how we measured the productivity of the frontline employees, which reflects a system based on customer autonomy. Although this system is widely used (mass retail, fast-food outlets, low-end hotels), it is not the only one. Sometimes personalization, total attention to the customer or a turnkey solution is the source of value (luxury hotels, high-end concierge service, etc.). In such cases the aim of training is no longer to make customers autonomous. Rather than doing things for themselves, it involves teaching them to “let themselves be taken care of” and to have no hesitation in making demands. This “cocooning” of the customer then provides opportunities for generating additional sales. Staff in contact with customers no longer have to generate the maximum turnover in the minimum time. They must try to best identify the customers’ expectations so as to offer them solutions that are most appropriate for them and most remunerative for the company. In such contexts, measurement of productivity would need to be rethought to reflect this system of value creation. For these reasons, it would be desirable to replicate the study on other terrains in order to increase the external validity of the findings. Next, this study uses a fairly simple model in which training and its characteristics (medium and content) have a direct influence on frontline employee productivity and customer satisfaction. The model could be completed by integrating mediating and moderating variables and other dependent variables. With regard to mediating variables, it would be worthwhile introducing the psychological mechanisms that underlie the relationships between training and the dependent variables. Training probably affects the clarity of the role, motivation, perceived risk, and emotions, none of which we were able to study in the real-life situation. These mediating variables would in turn affect frontline employee productivity and customer satisfaction. Some effects might thereby be better explained. For example, our study postulates that training decreases customers’ solicitation level by making them more autonomous. Paradoxically, it is also possible that trained customers experience negative emotions (shame, embarrassment) at the idea of asking for help. This effect may be all the stronger if the client has received both cognitive and emotional training content. It would therefore be interesting to test models that incorporate these mediating variables in experimental protocols under laboratory conditions. Similarly, the relationship between training and coproduction outcomes may be tempered by the customer profile and the novelty

of the service process. Several profile variables (age, purpose of the visit, expertise, etc.) were measured. but none of them moderates these relations in accordance with Hayes's (2013) procedure. However, other variables not incorporated in the research protocol, such as the type of functional or relational benefits sought by customers (Bendapudi and Berry, 1997; Gwinner et al., 1998), their familiarity with and feelings about technology, or their ability to participate (disability, illiteracy, etc.) could moderate this relationship. A significant moderating effect could have many managerial implications. Similarly, in the present study we consider the influence of training on an already existing service. The degree of novelty of the service process would be an interesting moderating variable that would give rise to a number of research questions. Does training by employees have a greater impact on productivity than digital training when the service is new? And then become less or not at all significant when customers have become familiar with the process? At what point should the training cease? Customer training could then be an important factor for the success of such innovations, but whose characteristics would be modulated at some later point. Finally, the dependent variables of our model are limited and could be supplemented. The impact of training on the input (time spent with staff) and the output (purchase amount) of productivity could be analyzed differently. Other variables such as trust, engagement, employee satisfaction, customer productivity or purely financial data might also be affected by training and could additionally be incorporated into the protocol.

In conclusion, it would be relevant to supplement our results by looking at other characteristics of training (its timing, location, duration and quality) and by deepening the analysis of the training content and medium. In our study, the location, timing, quality and duration of training were the same for all customers, who were trained for three minutes at the entrance of the store. However, it is possible to envisage different contexts (at home, at work, inside the store), different times (before coming to the store, when entering the store, during the visit), different quality levels (low or high) and different durations (short or long). These characteristics could have an effect on customer learning. Is it better to offer training to everyone at the entrance of the store or to respond to requests during the visit, especially for visits of long duration or when the customer is there for utilitarian purposes? Do customers learn better at home or in the store? What happens when the training is poorly designed? What is the effect of long training (10 minutes) as opposed to short training (3 minutes)? All these questions could open up interesting lines of future research. Concerning the training content and medium, it would be necessary first to deepen the relationships that may exist between these two variables. In the present study, they were considered independently. Care

was taken to check the absence of links (by means of manipulation checks) and no significant interaction effect was found. It is nevertheless legitimate to ask whether a human medium does not necessarily introduce affective elements into the content. Again, certain customers were excluded from the study because they were not totally controllable by the company. The service provider can, however, create an environment favorable to learning by such customers. Thus, firms like Ubisoft provide virtual spaces for the “superfans” of certain games to guide novice players. It would be interesting to study these phenomena. Lastly, the digital medium was limited to showing a film that explained the script. The diversity of digital tools available (applications, web sites, avatars, digital walls, robots) and digital tools made available to employees suggest other solutions with varying degrees of interactivity, including half-digital and half-human hybrid solutions. In the future, will training transmitted by a robot have a different impact than training by iPad or a human being?

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Figure 1: Summary of the study protocol for allocating scenarios

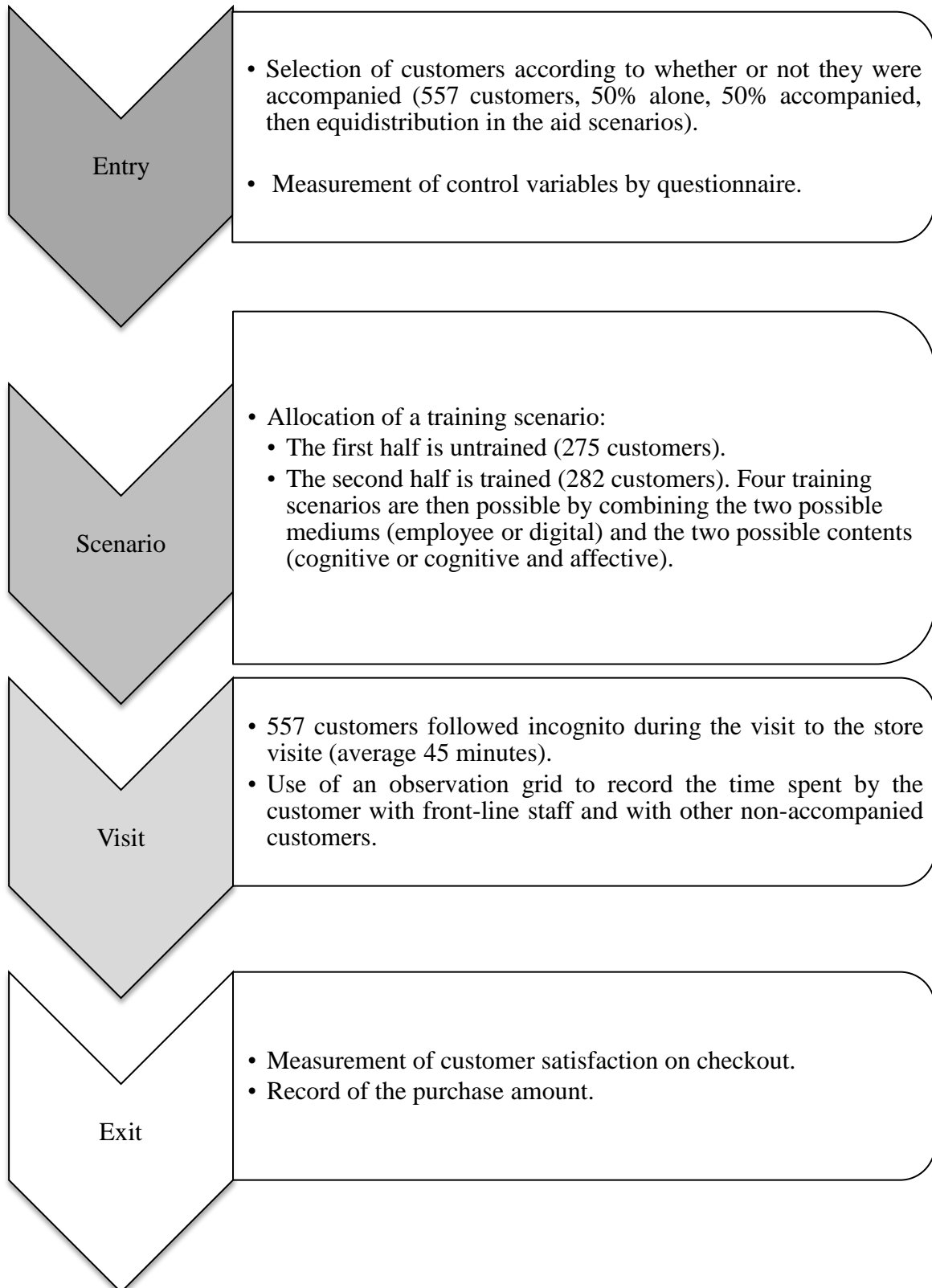
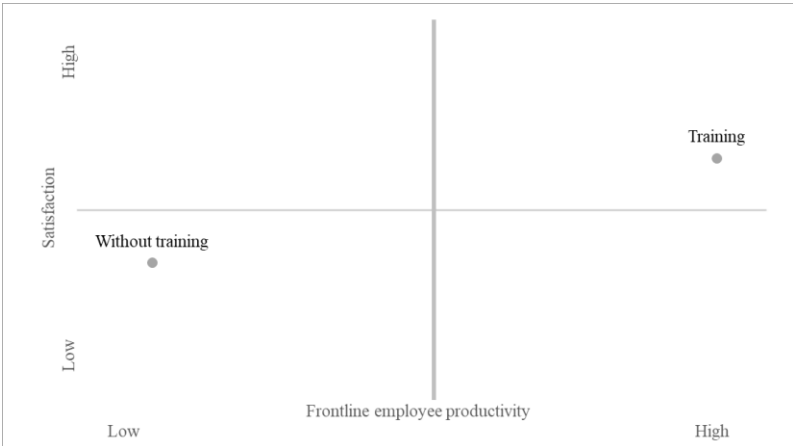
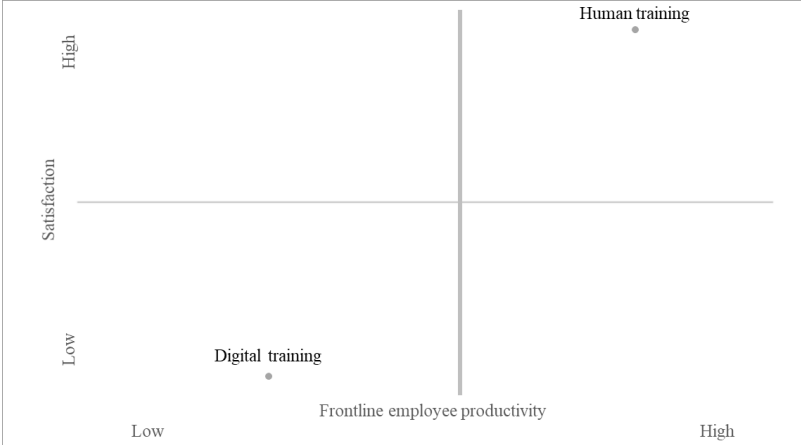


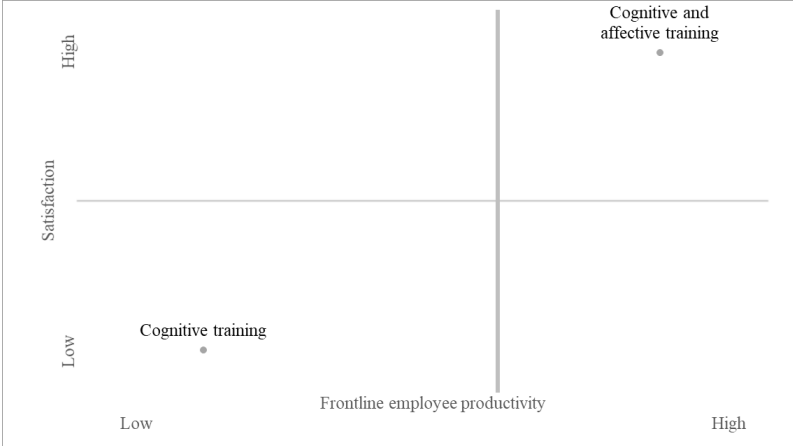
Figure 2: Graphical summary of findings⁴



Comparison of means of frontline employee productivity and customer satisfaction according to the presence or absence of training.



Comparison of means of frontline employee productivity and customer satisfaction according to the training medium.



Comparison of means of frontline employee productivity and customer satisfaction according to the training content.

⁴ The axes correspond to the means of frontline employee productivity and customer satisfaction for the study sample.

Table 1: Overlapping of the concepts of learning, socialization, education and training.

Learning is an enduring change in behavior, or in the capacity to behave in a given fashion, which results from practice or other forms of experience (Schunk, 2012).

Learning may take place through various processes. In management, one of the most commonly used processes are:

Socialization: This is a learning process in which an individual adapts to and appreciates the values, norms and behaviors of an organization (Schein, 1968).

This process can be either tacit and informal or organized. In the latter case, it is a deliberate strategy on the part of the organization with the aim of socializing its members, and is termed:

Education: This is a methodical and explicit form of socialization whose purpose is to transfer codes and values (Durkheim, 1922). This long-term, all-encompassing process (Burton, 2002) is partly based on:

Training: This consists of activities directly related to the acquisition of knowledge, skills and attitudes targeted for immediate or short-term application (Kraiger 2003, Zhao et al., 2008).

Table 2: Research questions, experimental design and controlled variables

Research questions	Hypotheses	Independent variables	Dependent variables	Control variables
			Similar for all research questions and analyses	
Does customer training enable simultaneous improvement of frontline employee productivity and customer satisfaction, or at least one without diminishing the other?	H1: Customer training positively influences the frontline employee productivity. H2: Customer training positively influences customer satisfaction.	Presence vs. absence of training	- Frontline employee productivity (Objective measurement through observation): Purchase amount/ time spent with staff	Variables controlling for potential training by other customers: - presence of an accompanying person (manipulated, same number of customers alone and accompanied in each instance) - Objective measurement of time spent interacting with unaccompanied customers. Sociodemographic variables: age of customer and accompanying person, type of customer and accompanying person. Variables related to the reason for the visit: utilitarian and hedonistic motivation for the visit (Babin et al. scale, 1994), planned expenditure budget and type of products looked for during this visit. Variables related to the conditions of the visit: time pressure and store crowdedness (objective measure: the number of entries to the store). Variables related to knowledge of the store: frequency of visits and expertise (scale).
If it is advantageous to train customers: What training content most improves satisfaction and productivity ? Which training medium most enhances satisfaction and productivity?	H3 (a,b): Cognitive and affective training content results in a higher level of (a) frontline employee productivity and (b) customer satisfaction than solely cognitive content. H4(a,b): Training by an employee results in a higher level of (a) frontline employee productivity and (b) customer satisfaction than training through a digital medium.	Cognitive content vs. cognitive and affective content Human medium vs. digital medium	- Customer satisfaction (Perceived measurement, collected through a questionnaire): Three-item scale taken from Oliver (1980), Oliver and Bearden (1983) and Westbrook (1980)	

Table 3: Distribution of the sample according to training (yes or no) and the presence or absence of an accompanying person

		Presence of an accompanying person		Total
		Yes	No	
Training	Yes	139	143	282
	No	141	134	275
Total		280	277	557

Table 4: Distribution of the sample according to the training content and medium

		Content		Total
		Cognitive + affective	Cognitive	
Medium	Human	68	72	140
	Digital	73	69	142
Total		141	141	282

Table 5: Influence of training on frontline employee productivity and customer satisfaction

Source	Frontline employee productivity					Satisfaction				
	<i>Sum of type III squares</i>	<i>DOF</i>	<i>Mean of squares</i>	<i>F</i>	<i>Sig.</i>	<i>Sum of type III squares</i>	<i>DOF</i>	<i>Mean of squares</i>	<i>F</i>	<i>Sig.</i>
Corrected model	473.884	5	94.777	6.269	0	31.957 ^a	7	4.565	4.767	0
Intercept	11773.795	1	11773.795	778.792	0	4.379	1	4.379	4.573	0.033
Hedonic orientation	82.66	1	82.66	5.468	0.02	7.798	1	7.798	8.142	0.005
Utilitarian orientation	64.838	1	64.838	4.289	0.039	9.891	1	9.891	10.328	0.001
Frequency of visits	<u>NS</u> ⁵	NS	NS	NS	NS	4.129	1	4.129	4.311	0.038
Expertise	<u>NS</u>	NS	NS	NS	NS	4.182	1	4.182	4.367	0.037
Training	117.932	1	117.932	7.801	0.005	0.033	1	0.033	0.034	0.853
Accompanying person	226.22	1	226.22	14.964	0	1.199	1	1.199	1.251	0.264
Training * accompanying person	7.212	1	7.212	0.477	0.49	0.007	1	0.007	0.007	0.933
Error	8284.673	548	15.118			467.359	488	0.958		
Total	20607.723	554				499.505	496			
Corrected total	8758.557	553				499.315	495			

⁵ NS means that the covariate is not significantly related to the dependent variable when verifying the conditions of application, so it is not included in the ANCOVA.

Table 6: Influence of training content and medium on frontline employee productivity and customer satisfaction

Source	Frontline employee productivity					Satisfaction				
	<i>Sum of type III squares</i>	<i>DOF</i>	<i>Mean of squares</i>	<i>F</i>	<i>Sig.</i>	<i>Sum of type III squares</i>	<i>DOF</i>	<i>Mean of squares</i>	<i>F</i>	<i>Sig.</i>
Corrected model	116.935	5	23.387	2.379	0.039	30.419 ^a	7	4.346	5.366	.000
Intercept	5545.785	1	5545.785	564.197	0	3.061	1	3.061	3.780	.053
Hedonic orientation	45.482	1	45.482	4.627	0.032	8.489	1	8.489	10.483	.001
Utilitarian orientation	5.823	1	5.823	0.592	0.442	11.032	1	11.032	13.623	.000
Frequency of visits	NS	NS	NS	NS	NS	3.493	1	3.493	4.313	.039
Expertise	NS	NS	NS	NS	NS	.567	1	.567	.701	.403
Medium	3.261	1	3.261	0.332	0.565	3.316	1	3.316	4.094	.044
Content	48.406	1	48.406	4.925	0.027	.747	1	.747	.922	.338
Medium*Content	1.014	1	1.014	0.103	0.748	.375	1	.375	.463	.497
Error	2624.48	267	9.83			211.352	261	.810		
Total	8228.292	273				241.812	269			
Corrected total	2741.415	272				241.771	268			

Appendix 1: The training script.

Plain text: Solely cognitive training **Bold underlined: Further elements for affective training**

Hello and welcome to our IKEA store!

I'm going to take a couple of minutes telling you about the store, so that you can get the most out of the time you spend here. **We're introducing this system to optimize your IKEA visit. As you'll see, it couldn't be simpler.**

La Valentine IKEA store is organized in two stages. **It's very easy to find your way around and you'll have a great time.**

At the top of the stairs, turn left and have a look at the exhibition area. Wander around and from the various styles get ideas for your future projects. Bedroom, kitchen, office, dining area. **If you need more information, just ask a member of staff. They'll be happy to help.** After this, if you're feeling a bit peckish, there's the coffee bar and the restaurant. No shopping carts in this section. **Just relax, have a good time, and enjoy yourself!** If you really need to carry products, use one of our yellow bags. Then on the ground floor, you'll find everything you need for decorating and equipping your home – décor, tableware, kitchen equipment, curtains, paintings, lighting and so on. You'll find shopping carts on the right at the bottom of the stairs. **You can't miss them!** At the end of your visit, before the checkouts, there's the goods collection and self-service area where you can pick up your larger purchases. We'll talk about that later, **but it's very simple.**

If you want to save time, IKEA provides you with shortcuts. **It's practical, and easy to find what you are looking for!**

At IKEA we save you money. And our furniture is cheaper, thanks to you. During the visit, we'll ask you to participate. **Don't worry. It's not complicated!**

When a piece of furniture interests you, take a good look at the label. **It's very easy.** If has a yellow label, contact a member of staff, who'll assist you. You won't carry the product yourself, and you'll need to contact a member of the IKEA team at the goods collection point just before the checkouts. He or she will quickly prepare your order. **Child's play!** If the product has a red label, note its reference (aisle, place) using the pencil and list provided. Use this reference to find your product in the self-service area at the end of the course. **Nothing's easier!** Just before you reach the self-service area, you'll find specially designed carts on which you can then place these items yourselves.

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

We wish you all the best for really “njut” visit!
IKEA

Appendix 2: Manipulation checks

In order to test whether customers perceive the difference between cognitive training and cognitive + affective training, we carried out a test on 63 randomly assigned individuals in two groups. Group 1, with 33 people, was exposed only to the cognitive content, half of which was given by an employee and half by means of an iPad. Group 2, with 30 people, was exposed to cognitive + emotional content, half given by an employee and half by iPad. Following this training, they were given a questionnaire containing six statements, three of which concerned the cognitive aspects (C1, C2, C3) and three the affective aspects (A1, A2, A3).

Questions	Wording
Cognitive 1	The training explains how IKEA is organized
Cognitive 2	It explains the procedure (yellow and red labels for example)
Cognitive 3	It explains my role during the visit
Affective 1	It reassures me about the ease of finding my way around IKEA.
Affective 2	It encourages me.
Affective 3	It reassures me that the procedure is straightforward.

We then asked the respondents for their degree of agreement on a 1-5 Likert scale. We then carried out means tests between the two groups on each item.

Group	Cognitive dimension	Affective dimension
Film 1	4.66	<i>1.36</i>
Film 2	4.38	4.48
TOTAL	4.52	2.85

Significant average deviations by higher value are shown in bold and significant deviations by value less than 1% margin of error in italics. Thus film 1 was perceived only cognitively, with the scores on the affective dimension being significantly lower. Film 2 was perceived cognitively and emotionally (with the scores on the affective dimension being significantly higher).

Appendix 3: The observations grid

Student:

Observations grid

Date:

Respondent ID:

Start time of visit:

End time of visit:

At the top of the stairs, the customer:

- Turns left
- Turn right
- Goes downstairs

	Respondent	Accompanying person 1	Accompanying person 2	Accompanying person 3
Gender	Male Female	Male Female	Male Female	Male Female

Department	Time spent with staff (in minutes)	Time spent interacting with other customers (in minutes)

Appendix 4: Validation of scales by the test and retest method and associated items
(Maximum likelihood adjustment method)

	Reliability		Loadings			Convergent validity	
	EFA	CFA	Manifest variables	EFA	CFA	EFA	CFA
Expertise	$\alpha=0.781$ $\rho=0.843$	$\alpha=0.838$ $\rho=0.843$	Ex1 Ex2 Ex3	0.721 0.900 0.774	0.721 0.900 0.774	0.643	0.643
Visit orientation: utilitarian	$\alpha=0.854^6$ $\rho=0.862$	$\alpha=0.843$ $\rho=0.840$	U1 U2	0.951 0.784	0.862 0.839	0.760	0.672
Visit orientation: hedonic	$\alpha=0.918$ $\rho=0.920$	$\alpha=0.901$ $\rho=0.905$	H1 H2 H3 H4	0.911 0.765 0.931 0.829	0.910 0.744 0.933 0.755	0.742	0.706
Satisfaction	$\alpha=0.747$ $\rho=0.778$	$\alpha=0.762$ $\rho=0.787$	Sat1 Sat2 Sat3	0.617 0.540 1.000	0.665 0.617 0.927	0.557	0.561

Variables	Manifest variables	Items (on a 1-7 Likert scale: 1 strongly disagree, 7 strongly agree)
Expertise	Ex1 Ex2 Ex3	I'm a newcomer to IKEA (item reversed) I'm very familiar with IKEA I'm an expert on IKEA
Visit orientation: utilitarian	U1 U2	I'll be very disappointed if I can't find the product I came for. If I leave IKEA and have to go to another store to find the product I'm looking for, I'll be very disappointed.
Visit orientation: hedonic	H1 H2 H3 H4	I didn't come here to buy a specific product but because I like wandering. The purpose of this visit is to get away from my daily routine and necessarily to acquire a product. I come to the store for the pleasure of strolling around and not for a particular purchase. I come here to stroll around
Satisfaction regarding the experience	Sat1 Sat2 Sat3	How satisfied are you? From 1 Very dissatisfied to 7 Very satisfied. Compared to what you were expecting, how do you rate your visit? From 1 Much worse than I expected to 7 Much better than I expected. What are your feelings about it? From 1 Very disappointed /annoyed to 7 Delighted

⁶ Calculating Cronbach's alpha on two items is a limit on this control variable.

	<i>CFA</i>				
	<i>RMSEA</i>	<i>PClose</i>	<i>SRMR</i>	<i>CFI</i>	<i>TLI</i>
<i>Criteria</i>	<0.08	>0.05	<0.08	>0.9	>0.95
<i>Expertise</i>	0.083	0.088	0.014	0.980	0.974
<i>Visit orientation</i>	0.068	0.220	0.0256	0.991	0.984
<i>Satisfaction</i>	0.076	0.111	0.0179	0.978	0.980

Appendix 5: Table of correlations

		Correlations												
		Utilitarian 1	Utilitarian 2	Hedonic 1	Hedonic 2	Hedonic 3	Hedonic 4	Expertise 1	Expertise 2	Expertise 3	Satisfaction 1	Satisfaction 2	Satisfaction 3	Productivity
Utilitarian 1	Pearson's correlation	1	.707**	-.207**	-.163**	-.222**	.270**	-0.063	0.07	.148**	.089*	0.053	.090*	.112**
	Sig.		0	0	0	0	0	0.153	0.111	0.001	0.039	0.218	0.036	0.009
Utilitarian 2	Pearson's correlation	.707**	1	-.205**	-.131**	-.214**	.243**	-0.036	0.006	.107*	.106*	.090*	0.083	0.057
	Sig.	0		0	0.002	0	0	0.413	0.895	0.016	0.013	0.036	0.054	0.183
Hedonic 1	Pearson's correlation	-.207**	-.205**	1	.699**	.844**	-.674**	-0.029	0.017	0.056	.144**	0.08	.118**	-.091*
	Sig.	0	0		0	0	0	0.52	0.693	0.208	0.001	0.064	0.006	0.032
Hedonic 2	Pearson's correlation	-.163**	-.131**	.699**	1	.698**	-.585**	0.048	-0.006	0.011	0.07	0.074	.107*	-0.045
	Sig.	0	0.002	0		0	0	0.281	0.887	0.8	0.103	0.085	0.012	0.295
Hedonic 3	Pearson's correlation	-.222**	-.214**	.844**	.698**	1	-.730**	-0.026	0.013	0.064	.103*	0.056	.090*	-.088*
	Sig.	0	0	0	0		0	0.559	0.766	0.151	0.017	0.196	0.036	0.037
Hedonic 4	Pearson's correlation	.270**	.243**	-.674**	-.585**	-.730**	1	0.031	-0.013	-0.027	-0.077	-0.059	-0.082	.119**
	Sig.	0	0	0	0	0		0.48	0.763	0.543	0.074	0.167	0.056	0.005
Expertise 1 (item reversed)	Pearson's correlation	-0.063	-0.036	-0.029	0.048	-0.026	0.031	1	-.549**	-.506**	-.119**	-0.085	-0.042	-0.076
	Sig.	0.153	0.413	0.52	0.281	0.559	0.48		0	0	0.008	0.058	0.348	0.085
Expertise 2	Pearson's correlation	0.07	0.006	0.017	-0.006	0.013	-0.013	-.549**	1	.668**	.118**	0.06	0.081	.088*
	Sig.	0.111	0.895	0.693	0.887	0.766	0.763	0		0	0.008	0.181	0.071	0.046
Expertise 3	Pearson's r	.148**	.107*	0.056	0.011	0.064	-0.027	-.506**	.668**	1	.106*	0.081	0.031	0.074
	Sig.	0.001	0.016	0.208	0.8	0.151	0.543	0	0		0.018	0.069	0.483	0.093
Satisfaction 1	Pearson's r	.089*	.106*	.144**	0.07	.103*	-0.077	-.119**	.118**	.106*	1	.526**	.700**	.232**
	Sig. (bilateral)	0.039	0.013	0.001	0.103	0.017	0.074	0.008	0.008	0.018		0	0	0
Satisfaction 2	Pearson's r	0.053	.090*	0.08	0.074	0.056	-0.059	-0.085	0.06	0.081	.526**	1	.608**	.093*
	Sig.	0.218	0.036	0.064	0.085	0.196	0.167	0.058	0.181	0.069	0		0	0.03
Satisfaction 3	Pearson's r	.090*	0.083	.118**	.107*	.090*	-0.082	-0.042	0.081	0.031	.700**	.608**	1	.246**
	Sig.	0.036	0.054	0.006	0.012	0.036	0.056	0.348	0.071	0.483	0	0		0
Productivity	Pearson's r	.112**	0.057	-.091*	-0.045	-.088*	.119**	-0.076	.088*	0.074	.232**	.093*	.246**	1
	Sig.	0.009	0.183	0.032	0.295	0.037	0.005	0.085	0.046	0.093	0	0.03	0	

** . The correlation is significant at the 0.01 level (bilateral).

* . The correlation is significant at the 0.05 level (bilateral).

Appendix 6: Interview guide

Hello, my name is XXXX, I am a teacher-researcher at XXX. I am doing a study on the IKEA customer experience. So I'm asking IKEA customers to talk to me about their visit to the store. Are you willing to tell me something about your experience with IKEA? This interview is completely anonymous and is simply to help me collect information. If you're agreeable, I would like to record our conversation. This will save me taking lots of notes and will allow me to listen better. I will erase the recording as soon as I've processed the data. If at any point you want me to stop this recording, please let me know. It's not a problem. So, could you tell me your most recent experience at IKEA.

Topics addressed:

1. Context of your experience at IKEA (*reason for the visit, route taken through the store*)

- What is the reason for your visit?
- What route did you take through the store?
- Was there anyone accompanying you?

2. Evaluation of the experience

1. Overall evaluation (*satisfaction, positive feelings, negative feelings*)

- Did the visit go well?
- What were the best parts?
- What were the worst parts?

2. Expectations regarding the store's service provision (*features that the customer expected to find and how he/she rates them*)

- What services did you expect to find during this visit?
- What expectations did you have regarding these services?

3. Expectations about interaction with staff (*interactions the customer had and how he/she assesses them, if there was any interaction*)

- What did you talk about during your exchanges with staff members?
- What expectations did you have regarding these exchanges?

3. Customer training at the outset of the visit.

Now imagine that IKEA wants to tell you about your role as a customer in the store (how the store is organized, how to collect a product, where to find pens, bags, carts, etc.).

- Do you think it's possible that IKEA would introduce a system of this kind?
- What form do you imagine such training would take at IKEA?