

Chapter 3

Designing Service Systems to Enhance Perceived Decision Control



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Abstract The primary purpose of many service encounters is to make decisions. This is particularly true in professional services such as financial services, healthcare, and real estate. In each encounter, many decisions have to be made. Some are trivial while others are highly consequential. The role of the customer in these decisions has a bearing on the outcome, customer's overall assessment of the service encounter, and the cost and complexity of delivering the service. Thus to design service encounters it is important to understand when customers seek decision control and how this control is influenced by the actions of the service provider. In this article, we explore behavioral science literature to identify factors that influence customer's desired role in decision making. It is well known, that trust influences the desire for decision control. This article identifies different dimensions of trust and how trust is influenced by the actions of the service provider.

Keywords Decision control · Service interactions · Trust · Service design

3.1 Introduction

In professional services such as healthcare, financial services, and real estate, customers seek the help of service providers to make decisions. For example, a couple buying their first home is likely to depend on their real estate agent to assess the relative merits of different neighborhoods, financial advisors help clients approaching retirement develop investment strategies, and pediatricians help parents

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choose treatment plans for their children. In most service encounters, many decisions have to be made. Here we are concerned with the allocation of decision rights between the customer and the provider. Allocation of decision rights has consequences for the service provider and the customer. For the service provider offering choice can be financially expensive. For the customer, in addition to financial costs, there can be psychological consequences. In this article, we explore the psychological dimensions of decision control.

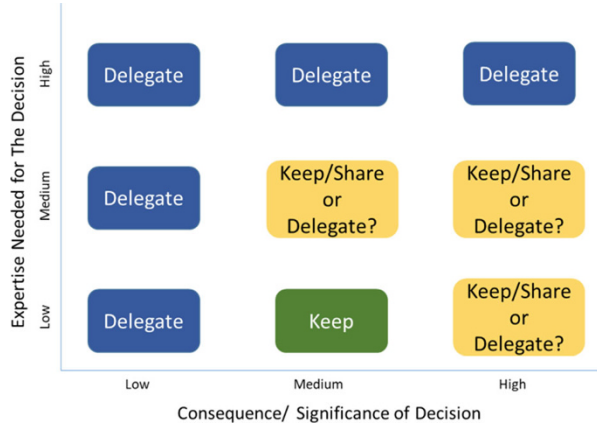
There is substantial research that shows when we choose we are more likely to appreciate an outcome even if it does not match our preferences. In contrast when we do not choose we are less generous in our assessment of the outcomes even when they match our preferences (Averill 1973; Gilovich et al. 1995; Mellers 2000; Lefcourt 1973). A naïve inference might be that customers prefer more choice to less and the service provider should maximize decision rights allocated to a customer while accounting for any economic constraints. The problem clearly is more complex. Customer's desire to make decisions depends on the characteristics of the decision. Further, a customer's willingness to delegate a decision in any situation is influenced by the level of trust in the provider. Thus to optimally allocate decision rights we need to understand factors that influence a customer's desire to make decisions and how trust is developed. Accordingly, in this article we explore the following questions.

1. What decisions would customers like to delegate?
2. What are the dimensions of trust that influence a customer's willingness to delegate?
3. How is trust formed?

3.2 Preference for Decision Control

It is well known that behavioral and cognitive control shape our perceptions of service experiences (Surprenant and Solomon 1987; Leotti et al. 2010). An important aspect of control is decision control. Although in general, we seek control yet there are many situations in which we do not want to make decisions. Clearly, patients will not want to make decisions that require deep technical skills. For instance, patients do not want to determine the specific steps a surgical oncologist should employ during a surgery. Even if expertise is not an issue, customers may delegate decisions to the service provider. Examples include tasting menus at restaurants, storylines of television series, and package tours. In addition, there are many trivial decisions that we prefer not to make. Former President Obama is quoted in a *Vanity Fair* article (Lewis 2012) as saying "I don't want to make decisions about what I'm eating or wearing. Because I have too many other decisions to make." Even when customers want to choose, too much choice can detract from a service experience (Schwartz 2004). Hence, good service design requires judicious allocation of decision control. Decision allocations should be such that the customers feel a sense of control without feeling overwhelmed or creating excessive costs for the service provider.

Fig. 3.1 Customer preference for decision-making



Dasu and Chase (2013) propose two dimensions that drive customers' preference for decision-making. These are (1) the significance of the decision and (2) the depth of knowledge needed to make the decision. A figure based on these two dimensions is below.

Dasu and Chase (2013) conjecture that a customer's preference for delegation increases if the consequences become more significant or the expertise needed to make a decision increases. On the one hand, when we choose or make the decision we are more positively disposed to the choice and any outcomes stemming from that choice. On the other hand, if outcomes are negative and highly consequential, then the psychological burden of choosing and coping with negative outcomes can be overwhelming (Botti and Iyengar 2004). Decision-making creates a cognitive load, internal conflicts, and can cause regret. When consequences are trivial we may prefer to delegate decisions and avoid the burden of choosing. As consequences and expertise needed change there are complex trade-offs among desire for control, a potential for regret, decision conflict, cognitive load and ability to cope with poor outcomes. These trade-offs provide a basis for Fig. 3.1. Interestingly, healthcare is an industry in which decisions span all the cells in Fig. 3.1. There is a vast body of literature on patient decision-making (Edwards and Elwyn 2009; Degner et al. 1997; Botti et al. 2009; Zeliadt et al. 2006). Findings in this literature are largely consistent with Fig. 3.1.

In addition to expertise and consequences, we conjecture that there are at least three other situational factors that influence a customer's desire to make or delegate decisions. The first is the size of the choice set and the second is the desire for surprise in consumption experiences. The third factor is trust. Trust moderates our willingness to delegate.

The literature on choice and decision-making (Hastie and Dawes 2010) suggests that the psychological burden of choice also depends on the choice set. Even when deep expertise is not needed, customers may find decisions difficult and elect to defer decision-making. This occurs when there are many alternatives and there are no clear criteria for making a choice (Beattie et al. 1994; Chernev 2003; Dhar 1997; Iyengar and Lepper 2000). Decision-making frequently creates internal conflict and regret.

As the size of the choice set increases, these unpleasant feelings are likely to grow. The nature and strength of the feelings will depend on whether (a) choices are in the negative domain or in the positive domain and (b) the significance of the consequences. Decision difficulty also depends on the alignment between the attributes of the alternatives (Shafir et al. 1993; Cho et al. 2013). Choosing between two televisions is easier than choosing between a television and a microwave oven. In short, we can expect the size of the choice set and the alignment of the alternatives to have a bearing on the dissonance associated with decision-making. What we know is that in these types of situations the customer may prefer not to choose (Dhar 1997). What is not known is whether they would be comfortable delegating these decisions.

Services have utilitarian and hedonic components (Chitturi et al. 2008). In hedonic services such as sports, movies, and dramas, the primary attraction is our inability to control the flow of events. We call these vicarious experiences. In vicarious experiences, customers value emotional reactions, even when they are very negative (Dunbar et al. 2016). Here customers want to cede decision control.

Thus far, we have focused on the characteristics of the decision—consequences of the decision, hedonic or utilitarian, and level of expertise needed—and the nature of the choice set as a determinant of customer's desire for decision control. Two other factors that matter are individual characteristics of the customer and the level of trust between the customer and the service provider. Clearly, it is important to consider individual differences in need for decision control (Degner et al. 1997). We believe that there is great opportunity for service system designers to develop methods for identifying customer decision control needs and personalizing the service interaction. However, in this article, we do not focus on individual differences.

Trust influences a customer's willingness to cede decision control. Therefore, a deeper understanding of different dimensions of trust, how trust is formed, and how trust influences a customer's disposition towards a service provider is used for service design. Fortunately, we can draw upon a huge body of research on trust (Gambetta 1988; Rousseau et al. 1998). The relationship between trust and decision control has been studied in the context of interpersonal relationships and in organizational dynamics. Both these literatures find that the need for decision control declines with increased trust. In the next section, we discuss different dimensions of trust.

3.3 Dimensions of Trust and Decision Delegation

There appears to be broad consensus that trust in a service provider is equivalent to the expectations held by the customer that the provider will perform a set of actions and can be relied on to deliver on promises even though the customer cannot control or monitor the actions of the provider (Rousseau et al. 1998; Mayer et al. 1995; Sirdeshmukh et al. 2002). There is also wide agreement that trust is a multidimensional construct and three key factors that lead to trust are perceived benevolence, competence, and integrity (Mayer et al. 1995). Trust, however, is a complex phenomenon and the specific elements that matter depend on the context, nature, and duration of the relationship (Rousseau et al. 1998; Rotter 1980; Kramer

1999; Roter and Hall 2006). Trust is known to have an affective and a cognitive dimension.

The need for competence trust arises due to differences in expertise, and these differences make it difficult for the customer to evaluate objectively the provider's competence. Benevolence trust is needed when the interests of the provider and customer are not aligned and contractual enforcement is costly. Competence trust is directly related to depth of expertise. According to Fig. 3.1, as the depth of expertise increases the customers prefer to delegate decisions.

We have seen in the previous section that customers also struggle when they have to choose among alternatives that require comparing two different things, such as apples to oranges (Cho et al. 2013). Shafir et al. (1993) find that in these types of situations customers use simple rules. They rank order the attributes and compare only the top few attributes (Zeliadt et al. 2006). This suggests that when customers have to choose between apples and oranges they will delegate only if they believe the service provider understands their preferences.

We conducted a focus group study with ten wealth managers. Each of them stated that customers would not let them manage their portfolio unless the customer believed that they truly understood the customer's preferences. All the managers strongly believed that understanding preferences was essential for acquiring and retaining customers.

We propose preference understanding as another dimension of trust and call it preference trust. This dimension is different from competence trust. We conducted another preliminary study to explore the difference between competence and preference trusts. We conducted a between-subjects study with four conditions. In each of the conditions, subjects were asked if they would allow a hotel concierge to make a decision for them. We also asked the subjects if the concierge was knowledgeable—a measure of competence. In the first condition the choice set consisted of two beaches; in the second set was three beaches; the third set consisted of a beach and museum; and the final set consisted of a beach, museum, and hike. There was no statistical difference in the perceived competence of the concierge across the four conditions. However, subjects were significantly more likely to delegate decision making in the first two conditions. In the first two conditions, preference was not a major issue while in the third and fourth conditions preference mattered.

Prior research tells us that service designers can influence customer's inclination to delegate decision by enhancing competence, benevolence, and preference trusts. In the next section, we discuss how trust is shaped by a service encounter.

3.4 Building Trust

Much of the prior work in behavioral sciences has viewed trust as a static concept (Rousseau et al. 1998; Lewicki et al. 2006). Service operations designers, however, have to worry about how trust develops or is modified by customer interactions. In many services the entire experience may consist of only one or two encounters. Thus there is a need to understand how trust develops during a single interaction.

There are two different traditions in trust research—behavioral and psychological. The behavioral tradition is based on observed choice, while the psychological tradition focuses on perceived expectations. Under the behavioral tradition, trust develops as a consequence of outcomes (Axelrod 1984). The influence of the delivery process or the service interaction itself on trust building is not considered.

Under the psychological tradition, trust is based on expectations of how the trusted party will act. According to that, the interaction is very important. Lewicki and Bunker (1996) propose that during the first few interactions trust is developed through calculations, where the trustor evaluates a trustee and determines the costs and benefits of an engagement. They call this calculation based trust. As the number of interactions increases, each party has greater knowledge about the other party's behavior and this knowledge forms the basis for changes in the level of trust. Lewicki and Bunker (1996) refer to this as knowledge-based trust. Finally, the two entities develop a relationship that creates a joint identity. Lewicki and Bunker (1996) term this type of trust identity-based trust. Although this stream of work lays out a broad framework, it is not concerned with the behaviors and actions in an encounter that influence judgments of trust. For this, we turn to research work that is concerned with personal perceptions.

3.4.1 Agency and Communion Traits in Person Perception

In recent years, many research traditions in social sciences have converged to the view that there are two fundamental dimensions to how we judge others (Bakan 1966; Wiggins 1991; Judd et al. 2005; Fiske et al. 2007; Abele and Wojciszke 2007). Abele and Wojciszke (2007) show that many of the interpersonal evaluation models can be explained in terms of communion and agency. Agency deals primarily with “manifestation of skills, competencies, and status” (Abele et al. 2008), while communion deals primarily with concerns of integrating into a larger social unit through “focus on others and their well-being, cooperation, and emotional expressivity” (Abele and Wojciszke 2007). Agency is also conceptualized as concern about self while communion is about the others and the group. Communal and agency concepts, therefore, correspond closely to benevolence and competence. Given our interest in identifying behaviors of the provider that shape the perceptions of the customer, we use communal and agency traits.

3.4.1.1 Judgments of Benevolence

In the trust literature, Mayer et al. (1995) define benevolence as “the extent to which a trustee is believed to want to do well by the trustor, aside from an egocentric profit motive.” A benevolent trustee is unlikely to act opportunistically and thereby mitigates one of the sources of risk for the customer. Combining the definition of benevolence with the classification of person traits proposed by agency and

communal theories, we infer that a trustee whose behaviors are consistent with communal traits will be perceived to be benevolent.

Trait words that are associated with communion are caring, helpful, loyal, polite, sensitive, sympathetic, and understanding. Trait words that demonstrate lack of communion are conceited, dominant, egotistic, and hardhearted (Abele and Wojciszke 2007). Therefore we conjecture that perceptions of benevolence will increase with behaviors that communicate caring, helpfulness, loyalty, politeness, sensitivity, sympathy, and understanding. Behaviors that convey conceit, egotism, and insensitivity will decrease perceptions of benevolence.

3.4.1.2 Judgments of Competence

Agency refers to an individual striving to differentiate through self-expansion, deliberation, dominance, goal attainment, and competence. Prior work has found a positive relationship between agency traits and competence perception (Judd et al. 2005). Traits words that are associated with agency include able, active, assertive, creative, independent, intelligent, rational and self-reliant (Abele et al. 2008). Trait words that demonstrate lack of agency include: insecure, shy, lazy, and vulnerable. Although communion corresponds closely to benevolence, a similar mapping between agency and competence is not forthcoming for a few reasons. First, only a subset of these traits is relevant for judging competence. Perceptions of competence will depend on perceived creativity, intelligence, and rationality. Insecurity and shyness may suggest a lack of competence. The link between self-reliance and perceived competence is not relevant in the context of service interaction. Second, there are several other factors that are known to influence judgment of competence that are not agency traits. These include qualifications, experience (Mayer and Davis 1999), and role norms (Kramer 1999). Thus we need to eliminate some of the variables associated with agency such as self-reliance and vulnerability and include some others such as experience and professional norms (Meyerson et al. 1996). In summary, perceptions of competence will increase with an increase in experience, adherence to norms, and behaviors that demonstrate creativity, energy, and intelligence. Shyness, insecurity, and lack of confidence will decrease perceptions of competence.

3.4.1.3 Behaviors that Convey Benevolence

A large body of research shows that behaviors in service encounters consist of spoken words and non-verbal cues (Argyle et al. 1970; Bonoma and Felder 1977; Rasmussen 1984). Verbal interactions need the support of nonverbal gestures in order to be unambiguously decodable by receivers (Argyle 1973).

Spoken words not only include objective information but also emotional inflections of the speaker that can convey empathy, caring, sensitivity, and understanding (Goodwin and Frame 1989; Surprenant and Solomon 1987). People frequently rely

on verbal communication cues in order to make judgments about other persons. Even if these cues enhance stereotyping (Thagard and Kunda 1998; Kunda 1999), they seem to be a valuable source on which people rely when making inferences about other people (Anderson et al. 1999) in initial encounters.

Non-verbal cues include a range of behaviors such as hand gestures, body posture, smiles, touch, eye contact and gaze, intonations of the voice, and pitch (Cesario and Higgins 2008; Driskell et al. 1993; Carli et al. 1995; Fennis and Stel 2001; Gabbott and Hogg 2001; Friedman et al. 1980).

Spoken words that convey communal orientation consist of addressing the customer by name (Goodwin and Frame 1989), acknowledging the customer's emotional and physical state (Wu et al. 2006), sharing personal observations and emotional response to a customer (Surprenant and Solomon 1987), providing references, softening voice tone when responding to emotional statements (Carli et al. 1995; Scherer and Oshinsky 1977), pausing and allowing time for emotional processing (Wilson and McNamara 1982).

Gestures, that are some of the most obvious body language signals, consistent with communal disposition include eye contact to convey caring (Carli et al. 1995; Surprenant and Solomon 1987), warm smile and gentle touch (Imada and Hakel 1977; Burgoon et al. 1984), and hand movements used to illustrate actions, objects movements, or to point to people and things (Argyle 1973).

Table 3.1 summarizes the sets of behaviors that shape perceptions of benevolence. The high and low conditions result in higher and lower perceived benevolence.

3.4.1.4 Behaviors that Convey Competence

As we did with benevolence, we need to identify verbal and non-verbal behaviors that induce a sense of competence. We label them as task orientation and Information disclosure (TI) behaviors. High TI behaviors require the provider to be active, energetic, confident, and creative. The bigger challenge is identifying behaviors that convey knowledge, intelligence, and technical skills.

Elsbach and Eloffson (2000) have shown that managers who explain their decisions are perceived to be more knowledgeable. Use of understandable explanations is seen as a symbol of intelligence and ability (Pfeffer and Salancik 1978; Dellande et al. 2004). From these findings, we conjecture that clear and detailed explanation will influence perceptions of competence.

Speech modulation also impacts perception of ability. People who speak fluently and with a confident and well-modulated voice tone are often judged to be more knowledgeable and capable, while those who give hesitant talks are not (Ridgeway 1987). Gestures to convey high ability consist of eye contact during explanations as well as fluid gestures and pointing (Driskell et al. 1993). Moreover, calm hand gestures as opposed to nervous actions cause service providers to be judged as more able (Taute et al. 2011).

Table 3.1 Communal behaviors (CB)

Classes of behaviors	High condition	Low condition
Verbal Communication Content—spoken words	<ul style="list-style-type: none"> • Addresses by name (Goodwin and Frame 1989) • Acknowledges customer’s emotional and physical state (Ryan et al. 2005) • Shares personal observations and emotions (Surprenant and Solomon 1987) • Provides references 	<ul style="list-style-type: none"> • No reference to name (Goodwin and Frame 1989) • Oblivious to emotional and physical state (Wu et al. 2006) • Stays on task-related information (Surprenant and Solomon 1987) • Does not volunteer references
Speech Modulation	<ul style="list-style-type: none"> • Softens voice tone (Carli et al. 1995; Scherer and Oshinsky 1977) • Pauses and allows time for emotional processing (Wilson and McNamara 1982) 	<ul style="list-style-type: none"> • Flat voice unreactive (Scherer and Oshinsky 1977) • No pauses (Wilson and McNamara 1982)
Gestures, Eye Contact, and Posture	<ul style="list-style-type: none"> • Eye contact (Surprenant and Solomon 1987; Carli et al. 1995) • Warm smile (Burgoon et al. 1984) • Direct body orientation (Imada and Hakel 1977; Burgoon et al. 1984) • Hand movements used to illustrate actions (Argyle 1973) 	<ul style="list-style-type: none"> • Minimal eye contact (Surprenant and Solomon 1987) • Minimal affective response (Burgoon et al. 1984) • No contact (Burgoon et al. 1984) • No hand movements

Table 3.2 summarizes the sets of behaviors that we conjecture shape perceptions of competence. The high and low conditions should result in higher and lower perceived competence, respectively.

Brunner-Sperdin and Dasu (2015) conducted a set of experiments to test whether the behaviors in Tables 3.1 and 3.2 shape perceptions of benevolence and competence. They developed a set of vignettes based in healthcare. Their study finds that task orientation and information disclosure does result in higher competence trust and communal behaviors impact benevolence.

Researchers who study person judgment (Fiske et al. 2007; Rosenberg et al. 1968; Judd et al. 2005) have found that communion and agency judgments are often correlated. Rosenberg et al. (1968) reveal that interpersonal judgments about individuals who are seen as possessing more positive and social qualities are also seen as possessing more positive intellectual qualities and vice versa. The correlation may be due to a halo effect or because of likeability. Judd et al. (2005) also suggest that individuals who are judged to be competent are also perceived to be warm.

Abele and Wojciszke (2007) find that agentic traits of the provider are at times perceived as warm or benevolent. This happens when these traits benefit a customer. Elsbach and Eloffson (2000) find that managers who provide explanations are perceived to care for the employees. Finally, Rosenberg et al. (1968) suggest that warmth and competence judgments are frequently positively correlated.

The above discussion suggests that communal behaviors can influence perceptions of competence and agentic traits can influence benevolence. Brunner-Sperdin

Table 3.2 Task orientation and information disclosure (TI) variables

Classes of behaviors	High condition	Low condition
Verbal Communication Content—spoken words	<ul style="list-style-type: none"> • Common language detailed explanations (Pfeffer and Salancik 1978) • Statements of experience (Mayer and Davis 1999) 	<ul style="list-style-type: none"> • Jargon and abbreviated explanations (Pfeffer and Salancik 1978)
Speech Modulation	<ul style="list-style-type: none"> • Fluent (Ridgeway 1987) • Well-modulated (Ridgeway 1987) • No hesitations (Ridgeway 1987; Carli et al. 1995) • Confident (Ridgeway 1987) 	<ul style="list-style-type: none"> • Disfluent (Ridgeway 1987) • Hesitant (Ridgeway 1987)
Gestures, Eye Contact, and Posture	<ul style="list-style-type: none"> • Calm hand gestures (Taute et al. 2011) • Fluid gestures and pointing (Driskell et al. 1993) • Eye contact during explanations (Driskell et al. 1993) 	<ul style="list-style-type: none"> • Nervous activity—clicking pen (Taute et al. 2011) • Inconsistent eye contact (Carli et al. 1995)

and Dasu (2015) also tested for these interactions. Surprisingly, in their experiments, they did not see an impact of communal behaviors on competence trust but task orientation and information disclosure led to higher perceptions of benevolence. It will be interesting to test if their finding generalizes to settings other than healthcare.

3.4.1.5 Judgments of Preference Trust

How do customers determine whether or not the service provider understands their preference? This dimension of trust is concerned with the service provider's familiarity with a customer's situation and tastes. Unlike competence trust, customers have more information and are in a better position to query a provider to determine preference trust. Based on our preliminary study with wealth managers, we find that customers infer this through a series of questions about their own situation and the provider's prior experience with similar customers. The key here appears to be for the provider to develop a deep understanding of the different customer segments.

3.5 Conclusions

In many services, the main purpose of the interaction is to make a set of decisions. A customer's role in these decisions influence the customer's experience and has economic consequences for the service provider. Therefore service designers must understand factors that shape a customer's desire for decision making and the psychological costs and benefits a customer incurs as a result of making decisions.

These insights can be used to optimize the allocation of decision rights. Based on findings in behavioral sciences we posit that desire to make decision depends on the consequences of the decision, whether the decisions are in the negative domain or positive domain, the expertise needed to make a decision, the size of the choice set, and whether choice entails comparing apples to apples or apples to oranges.

It is well known that trust moderates a customer's willingness to delegate. Thus by building trust, a service provider gains greater latitude in allocating decision rights. We discussed the key dimensions of trust and provider behaviors that influence perceptions of trust.

The focus of this article was on situational variables. It is well known that individuals differ in their need for cognition (Cacioppo and Petty 1982) and resilience (Wagnild and Young 1993). Thus, we need to research and develop systems that are sensitive to individual differences. A major challenge here involves developing methods for discovering individual preference during service. Potential approaches include (a) offering a set of options and allowing customers to signal their preference, (b) mine prior history, and (c) use a triaging system such as a questionnaire.

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