

## **Providing feedback to service customers:**

### **The effect of the presentation order and repetition of feedback types**

#### **Abstract**

**Purpose** – In services, customers’ successful performance of expected roles is critical to ensuring successful service outcomes. To help customers perform their roles better, service providers offer them feedback on their performance. To improve the design of customer feedback that contains both positive and negative messages, we examine the order and the repetition effect of feedback message types on customer feedback satisfaction, motivation, and compliance intention, focusing on the moderating effect of customer involvement level. We also examine whether feedback satisfaction and motivation mediate the moderation effect of the order or repetition of feedback message type and customer involvement level on compliance intention.

**Design/methodology/approach** – This study employs two between-subject quasi-experimental designs: 2 (feedback message order: positive message first vs. negative message first) x 2 (involvement level: high vs. low) and a 2 (repeated feedback type: positive vs. negative) x 2 (involvement level: high vs. low). Data were collected through an online survey using eight health check-up scenarios and analyzed by MANOVA and PROCESS.

**Findings** – The customer involvement level moderated the effect of the order of feedback message type on customer responses. With highly involved customers, offering positive feedback initially produced responses that were more favorable. With customers with low involvement, the order did not matter. The effects of feedback satisfaction and motivation as mediators in the effect of order on compliance intention were significant only with highly

involved customers. The mediation effect of motivation was much stronger than that of feedback satisfaction. The repetition of a particular feedback type took effect only with customers with low involvement level. Compared to the no-repetition condition (positive–negative), when positive feedback was repeated (positive–negative–positive), motivation increased. Compared to the no-repetition condition (negative–positive), when negative feedback was repeated (negative–positive–negative), feedback satisfaction and compliance intention decreased. In terms of mediating effect, only feedback satisfaction was a meaningful mediator and only when negative feedback was repeated to low-involvement customers.

**Originality/value** – This study contributes to research by extending feedback studies in services to include a consideration of the order and repetition of feedback message types as design variables; it contributes practically by suggesting how to design feedback for better customer responses such as feedback satisfaction, motivation, and compliance intention.

**Keywords:** feedback, order effect, repetition effect, customer involvement, feedback satisfaction, motivation, compliance intention, healthcare service

**Paper type** Research paper

## Introduction

Service customers are considered partial employees in the service production process (Bitner *et al.*, 1997; Bowen, 1986; Chen *et al.*, 2015; Mills and Morris, 1986). In service contexts such as education, banking, beauty care, and healthcare, customers actively participate in co-producing the service they purchase (Dagger and Sweeney, 2007). In services where customers play essential co-production roles, customers who do not fulfill their roles can have negative effects (Bitner *et al.*, 1997). The effectiveness of customer role-play at all levels can affect organizational productivity and, ultimately, service quality and customer satisfaction (Mills and Morris, 1986). A commonly adopted approach to improving customer performance is providing them with quality feedback on their performance.

Offering feedback to customers is a well-known psychological intervention used by service providers to stimulate customers' active participation (Crommelinck and Anseel, 2013; Kluger and Denisi, 1996). As partial employees, customers often wonder how well they are performing during service delivery (Crommelinck and Anseel, 2013). Therefore, service providers should offer customers informative feedback with suggestions on how to improve their performance. For example, doctors provide feedback to patients on how to improve their body conditions (Ong *et al.*, 1995), and educators provide feedback to students on how to improve their academic performance (Schunk and Rice, 1986). Therefore, it is vital that the feedback be designed and delivered in a way that increases customer compliance intentions.

To better design customer feedback, we empirically examine the order effect of feedback message types and the repetition effect of a certain feedback message. Feedback messages are typically either positive or negative. Positive feedback emphasizes the recipient's correct responses, strengths, and accomplishments, whereas negative feedback

emphasizes their incorrect responses, weaknesses, and lack of accomplishments (Finkelstein and Fishbach, 2012). Most of the extant research on customer feedback has focused on identifying the feedback type preferred by the various types of customer (Finkelstein and Fishbach, 2012). In practice, however, service providers rarely offer only one feedback message type and usually offer both types. The composition ratio of the two feedback message types might vary according to the circumstances. When offering both types, service providers have to decide which message type to offer first (Legg and Sweeny, 2014), a controversial issue among researchers and managers (Ge *et al.*, 2012; Legg and Sweeny, 2014). Furthermore, there is little empirical evidence on the order effect of feedback types on customers' cognitive and behavioral outcomes (Finkelstein and Fishbach, 2012).

Service providers also repeat positive or negative feedback to emphasize and encourage maintaining a good status or changing behaviors. Particularly, the feedback sandwich, consisting of negative feedback between positive feedbacks, is well known as a feedback-giving technique (Dohrenwend, 2002). However, feedback sandwich studies lack empirical evidence (Henley and DiGennaro Reed, 2015).

We propose that the order effect of feedback message types will vary according to the level of customer involvement in the service. Thus, we posit four research questions: (1) What is the optimal order of the two feedback types in a given service setting? (2) How does the order influence customer satisfaction with the feedback (feedback satisfaction), intention to invest efforts (motivation), and intention to follow the advice offered by the service provider in the feedback (compliance intention)? (3) Does the customer involvement level moderate the order effect on customer responses? (4) Do feedback satisfaction and motivation mediate the order effect of feedback type on compliance intention? Furthermore, by examining the repetition effect of a certain feedback type, we posit three additional

questions: (5) How does the repetition of a certain feedback type influence customer responses? (6) Is the repetition effect moderated by the customer involvement level? (7) Do feedback satisfaction and motivation mediate the repetition effect of feedback type on compliance intention?

Our study is distinguished from prior studies in several ways. First, while existing studies concentrate on identifying the type (positive vs. negative) of feedback message that triggers positive customer reactions (e.g., feedback-seeking behaviors) as well as customer contexts (novice vs. expert) in which such reactions occur (Finkelstein and Fishbach, 2012), our study examines customer responses when both feedback message types are offered and concentrates on their order effect. Second, while existing feedback studies examine the effect of feedback types on customer response variables such as feedback-seeking behavior, our study focuses on the order effect of feedback types on customer reactions such as feedback satisfaction, motivation, and compliance intention. Third, while few existing feedback studies propose or examine the moderating factors of the feedback effect, we propose and examine the moderating effect of the customer involvement level.

In the sections that follow, we review the literature on feedback, the order effect, and repetition effect, and develop hypotheses. Then, we describe our experimental designs and present the findings. Finally, we discuss our findings and their implications.

## **Theoretical background**

### *Feedback*

Feedback is defined broadly as a “special case of the general communication process in which some sender conveys a message to a recipient” (Ilgen *et al.*, 1979). Generally, people are interested in performance feedback through which they can learn how well they are

performing a given task (DeNisi and Kluger, 2000). Through feedback, recipients can learn whether, what, and how much to invest toward their goal accomplishment (Ashford and Tsui, 1991; Finkelstein and Fishbach, 2012; Renn and Fedor, 2001). Recipients' feedback-seeking behaviors are also positively related to work performance (Ashford and Tsui, 1991; Renn and Fedor, 2001). However, feedback is not always as effective as is typically assumed. DeNisi and Kluger (2000) found that in some conditions, feedback might be less effective or even harmful. This indicates that feedback must be designed and delivered carefully to generate the intended outcomes.

Studies on feedback in the context of service providers offering feedback to their customers have examined professional service settings such as education (Lizzio and Wilson, 2008) and healthcare (Seiders *et al.*, 2015). In professional services, service providers offer customized expert guidance to customers to induce them to play active roles as partial employees for desired service outcomes (Seiders *et al.*, 2015).

In feedback research in the education setting, feedback is defined as a technique used by course instructors to communicate with students about their performance (McGrath *et al.*, 2011). For example, language instructors (i.e., service providers) offer feedback to students (i.e., customers) on their mastery of a foreign language. Lizzio and Wilson (2008) investigated student reactions to written feedback and identified its particular aspects that students find helpful. Students valued feedback that was fair, encouraging, and had a developmental focus. Students perceived feedback to be fair when it was presented clearly and provided a consistent message about the evaluation of their work. Effective feedback addressed the emotional aspects of writing and enhanced motivation by acknowledging what the student did well or the amount of effort invested in the writing. Finally, feedback with a developmental focus was most strongly associated with perceived feedback effectiveness

(Lizzio and Wilson, 2008).

McGrath *et al.* (2011) examined the effect of two different styles of feedback (developed vs. undeveloped) on student perceptions of the written feedback and subsequent writing performance. The results showed that well-developed written feedback resulted in significantly higher perceptions of fairness and helpfulness; however, this feedback style did not influence students' written performance. Hyland and Hyland (2001) showed that students considered feedback as important in identifying their strengths and weaknesses and in enhancing their motivation and future grades. Thus, feedback research in the education setting indicates that instructors' written feedback style influences students' cognitive responses but not their performance.

Health communication is a major component of healthcare service encounters (Mandana, 2007). Among various interpersonal relationships, the doctor–patient relationship is one of the most complex, perhaps because it involves interactions between individuals in unequal positions, is often involuntary, concerns issues of vital importance, is emotionally laden, and requires close cooperation (Ong *et al.*, 1995). As a result, the body of communications research focusing on doctors' communication styles has continued to expand (Buller and Buller, 1987; Mandana, 2007; Ong *et al.*, 1995; Reblin *et al.*, 2012; Verheul *et al.*, 2010). Patients' evaluations of physicians' communication were shown to be associated with the patients' overall evaluation of medical care (Ong *et al.*, 1995). This finding suggests that doctors' communication competence may be a critical facet of overall medical competence. In general, affiliative (genuine and compassionate) communication styles are positively associated with patient satisfaction, whereas control (dominative) styles are negatively associated (Buller and Buller, 1987; Reblin *et al.*, 2012). A combination of a warm and empathic communication style with the expression of positive expectations leads to less

anxiety and more positive expectations in patients (Mandana, 2007). On the other hand, ineffective health communication can result in a wide range of direct and indirect negative health consequences, including failure to understand and comply with treatments, worsened health status, increased risk of injuries, increased hospitalization, and decreased use of preventive services (Mandana, 2007). This implies that effective doctor–patient communication can have a significant influence on patient behaviors and wellbeing, satisfaction with care, adherence to treatments, recall and understanding of medical information, coping, quality of life, and state of health (Ong *et al.*, 1995).

Among the outcome variables for health communication, compliance intention is one of the most important in healthcare studies (Dellande *et al.*, 2004; Ong *et al.*, 1995; Reblin *et al.*, 2012; Seiders *et al.*, 2015; Verheul *et al.*, 2010). Increased compliance intention not only improves customer wellbeing but also helps sustain organizational resources that could otherwise be wasted due to customer nonadherence (Seiders *et al.*, 2015). Thus, it is crucial that healthcare providers understand the factors that influence patient willingness to perform prescribed behaviors (compliance intention; Dellande *et al.*, 2004).

### *Compliance intention*

A rich stream of research has addressed compliance in diverse academic fields, such as persuasion (Burger, 1999; Cialdini and Goldstein, 2004; Cialdini *et al.*, 1975; Dillard, 2004; Gass and Seiter, 2009), psychology (Burger and Guadagno, 2003; Vrugt, 2007), healthcare (Buller and Buller, 1987; Mandana, 2007; Ong *et al.*, 1995; Reblin *et al.*, 2012; Verheul *et al.*, 2010), and education (Pintrich, 2003). Relevant theories and methodologies have been particularly well-developed in the persuasion field. Given that the primary purpose of persuasion is gaining assistance, giving advice, obtaining permission, or enforcing rights and

obligations, persuasion seeks compliance as an outcome (Dillard, 2004). Persuasion researchers have studied how and why persuasion works and how to gain compliance (Gass and Seiter, 2009). They have defined compliance as a “particular kind of response (acquiescence) to a particular kind of communication (a request)” (Cialdini and Goldstein, 2004) and compliance-gaining communication as a “subset of persuasion that involves intentional efforts to change another’s behavior” (Gass and Seiter, 2009).

The persuasion literature has identified a variety of verbal and nonverbal strategies for gaining compliance. Verbal strategies include the foot-in-the-door (FITD; Burger, 1999) and the door-in-the-face (DITF; Cialdini *et al.*, 1975) technique. The FITD technique is that of making a small initial request to soften up the recipient or target and then making a larger follow-up request. The DITF technique is that of making a large initial request on the assumption that it will be rejected and then following up with a more reasonable request. Nonverbal compliance-gaining strategies are based on immediacy behaviors such as eye contact, smiling, and touch intended to facilitate compliance (Segrin, 1993). When these strategies are well-implemented, recipients recognize that they are being urged to respond in a desired way (Cialdini and Goldstein, 2004).

When service providers give advice or feedback to customers to help them achieve their goals, they should design strategies to enhance the customers’ emotional aspects such as mood (Rind and Strohmetz, 2001) as well as cognitive aspects such as motivation (Dillard, 2004), so that they can eventually increase the customers’ compliance intention. In the context of healthcare, compliance is the extent to which a patient’s behavior while taking medication, following diets, or executing lifestyle changes coincides with the medical or health advice (Ong *et al.*, 1995). Conversely, noncompliance is a failure or refusal to comply and can imply disobedience (Vermeire *et al.*, 2001), including a delay in seeking care,

nonparticipation in health programs, breaking of appointments, and failure to follow the doctor's instructions (Ong *et al.*, 1995). Low compliance has been identified as a major public health problem imposing a considerable financial burden and as a source of ongoing frustration to doctors (Melnikow and Kiefe, 1994). Hence, inducing patient compliance is critical to ensuring successful healthcare processes and outcomes.

Studies of healthcare communications on inducing patient compliance intention have focused on communication styles for the purpose of building favorable impressions on patients based on the positive relationship between fondness for a person (feedback provider) and the likelihood of compliance with that person's requests (feedback; Burger, 1999; Cialdini and Goldstein, 2004). However, communication style is a characteristic unique to an individual and thus hard for management to control. Management needs to identify more controllable factors and examine their impact. In this study, we propose the composition of the feedback content (i.e., the order or the repetition of positive feedback and/or negative feedback) as such a factor.

#### *Classification of the feedback*

The most critical component of the feedback process is the content of the message (Brinko, 1993). Several studies have proposed categorization schemes for the components of the feedback content based on whether the content is positive or negative. Positive feedback describes what a person does well for the purpose of encouraging such behaviors (Ashford and Tsui, 1991). The inclusion of positive components in a feedback contributes not only to reinforcing what the recipients do well (Finkelstein and Fishbach, 2012; Hyland and Hyland, 2001) but also to offsetting the potentially adverse effects of negative feedback on self-esteem and motivation (Lizzio *et al.*, 2003).

Negative feedback focuses on insufficient progress relative to expectations (Locke and Latham, 1990; Miller, 1976). Effective feedback contains information about the performance gap between the actual and ideal performance, which can improve recipients' motivation to progress (DeNisi and Kluger, 2000). From a self-regulated learning perspective, information regarding such a perceived discrepancy is fundamental to motivating a change or learning. Thus, the more effectively the feedback intervention provides such information, the more effective the feedback is likely to be perceived (Lizzio and Wilson, 2008).

Most studies on feedback focus on feedback-seeking behaviors and attempts to determine what type of feedback triggers positive reactions. For example, Finkelstein and Fishbach (2012) found that while novices sought and responded to positive feedback, experts sought and responded to negative feedback. Positive feedback increased the novices' commitment, while negative feedback increased the experts' sense that they were making insufficient progress.

In the organizational behavior research, managers' tendency to seek negative feedback increased the accuracy of their understanding of how the feedback sources evaluated their work. By seeking negative feedback, managers were able to enhance the opinions of their overall effectiveness. By contrast, seeking positive feedback degraded these opinions (Ashford and Tsui, 1991).

To explain the key drivers of employees' willingness to report customer feedback to facilitate organizational learning, Wirtz et al. (2010) examined the relational social capital (i.e., shared vision and trust) and structural social capital (i.e., knowledge transfer system and process, and knowledge transfer rewards and recognition) in the process of knowledge transfer (i.e., employees' willingness to report customer feedback). They found that social

capital had a positive impact on employees' willingness to report negative feedback used for evaluation purposes but that social capital was less important when used for service improvements. By contrast, for positive feedback, social capital had a positive impact when feedback was used for service improvements but less so in an evaluation context where staff were naturally motivated to report positive feedback.

It is often argued that feedback is more effective when it includes both positive and negative components (Hyland and Hyland, 2001). For the purpose of accurate self-assessment and adjustment of efforts, both positive and negative feedback are useful (Legg and Sweeny, 2014). However, most studies on organizational and consumer behaviors have employed a single feedback type and have focused on determining the kind of feedback that respondents seek and respond to. These studies are limited in addressing issues arising when more than one type of feedback is offered; such issues include determining the sequence in which different feedback types are offered, particularly to increase customer willingness to follow the feedback. Our study intends to fill this gap in the literature.

#### *Order effect*

The order effect has received attention in diverse research fields such as consumer research, education, and psychology (Garnefeld and Steinhoff, 2013; Ge *et al.*, 2012; Haugtvedt and Wegener, 1994; Johar *et al.*, 1997; Stone *et al.*, 1984; Unnava *et al.*, 1994). The consumer research has examined the presentation order effect among different product attributes (Kardes and Herr, 1990) and opposing message orders (Haugtvedt and Wegener, 1994). The order effect between two opposite feedback types (positive vs. negative) is yet to be addressed.

The primacy and recency effects can help explain the order effects. Primacy effects

occur when initially presented information has the strongest impact on ex post evaluations (Garnefeld and Steinhoff, 2013; Russo *et al.*, 2006). Recency effects have occurred, however, when final judgments were affected more strongly by the information encountered later in the message (Johar *et al.*, 1997). Studies on the primacy and recency effects in persuasion contexts (Hovland and Mandell, 1957; McGuire, 1957) offer empirical evidence. For example, persuasion research has noted the effect of opposing message order by identifying a “law of primacy in persuasion” (Lund, 1925, p. 183). Hovland and Mandell (1957) conducted a series of studies in the primacy–recency paradigm and showed that the effect is highly contextual (Haugtvedt and Wegener, 1994; Lana, 1963). For example, a study on tariffs showed a significant primacy effect, while another study on atomic submarines showed a significant recency effect. Hovland and Mandell (1957) concluded there is no universal law of either primacy or recency. Hence, when service providers have to offer both types of feedback within a message, it is important for them to understand which effect is stronger so that they can design an effective feedback delivery.

Other conditions influential on the order effect should also be considered. Studies on the order effect have shown that the dominance of primacy or recency effects depends on intrapersonal variables. For example, primacy effects are most likely when people confront familiar issues (Lana, 1961) or interesting issues (Lana, 1963), or are exposed to high levels of elaboration, in which the individual is involved in many cognitive activities about the message (Haugtvedt and Wegener, 1994). Recency effects are more likely when individuals know little about the topic (Lana, 1961), show little interest in the topic (Lana, 1963), or are exposed to a low level of elaboration (Haugtvedt and Wegener, 1994). Thus, we anticipate that the level of customer involvement in the service context is a potential moderator of the predominance of the primacy or recency effect.

### *Repetition effect*

Few studies have examined the effect of repeating a certain feedback type within a message. The closest topic addressed is the feedback sandwich, which refers to hiding a negative feedback such as a criticism between two positive feedbacks (Dohrenwend, 2002; Henley and DiGennaro Reed, 2015). A feedback sandwich involves delivering feedback in a particular order: a positive statement about specific behaviors performed well, a corrective statement about behaviors requiring a change or improvement, and an overall and repeated positive statement (Henley and DiGennaro Reed, 2015). This approach is useful when feedback providers are uncomfortable giving negative feedback. Some supervisors avoid giving negative feedback because they fear that criticism will hurt their relationships with staff (Dohrenwend, 2002).

Proponents of the feedback sandwich argue that this approach is effective and preferable because it makes negative feedback more acceptable to the receiver (Hesketh and Laidlaw, 2002) and reduces discomfort and anxiety for both recipients and deliverers (Henley and DiGennaro Reed, 2015). Ultimately, the feedback sandwich can positively affect the motivation, receptivity, and engagement of the receiver (Bienstock *et al.*, 2007). Conversely, opponents of the feedback sandwich argue that this approach obscures the message or devalues the negative feedback because the overall feedback is perceived as positive (Henley and DiGennaro Reed, 2015). Others argue that the feedback sandwich devalues positive feedback through its pairing with negative feedback or that customers eventually learn the sequence and do not attend to the first positive statements because they are waiting for the negative feedback (Daniels, 2009; Petty, 2009). Although the feedback sandwich has been recommended and adopted in a wide range of settings among physicians, nurses, coaches, educators, and managers (Dohrenwend, 2002; Henley and DiGennaro Reed, 2015; Milan *et*

*al.*, 2006) empirical evidence supporting the effectiveness of this approach still lacks (Dohrenwend, 2002; Henley and DiGennaro Reed, 2015).

The repetition effect of a particular feedback type within a message, the focus of this study, further develops the feedback sandwich research. What can be sandwiched in our study case is not only negative feedback but also positive feedback. This treatment can be seen not only as a certain message being sandwiched but also as a particular message being emphasized through repetition.

The impact of a repeated message on communication effectiveness is significant (Campbell and Keller, 2003). Consumer researchers, psychologists, and marketers have attempted to understand the effect of a repeated message on the audience. According to Berlyne's two-factor theory (Schmidt and Eisend, 2015), repetition is nonmonotonically related to message persuasion: increasing message exposure to a certain level enhances its persuasive impact, but a further increase causes wear-out and a decline in the audience's attitudes toward the advocacy. Moreover, in the advertising context, the repetition effect was shown to be stronger for customers with low involvement than for those with high involvement (Schmidt and Eisend, 2015).

#### *Customer involvement*

Customer involvement is defined as the "extent of personal relevance of the decision to the individual in terms of his/her basic values, goals, and self-concept" (Zaichkowsky, 1985). A high-involvement message has greater personal relevance and consequences or elicits more personal connections than a low-involvement message (Petty *et al.*, 1983). Furthermore, the customer involvement level was found to moderate the consumer decision-making process (Park and Hastak, 1994; Petty and Cacioppo, 1979; Swinyard, 1993). Thus, we propose the

customer involvement level as a moderating variable for the order effect of feedback type since customer involvement is an overarching construct for customer relevance, interest, and knowledge and is known to moderate the consumer decision-making process.

## **Hypotheses development**

### *Moderation effect of feedback order and customer involvement level*

If customers' reactions to feedback differ between two scenarios where both types of feedback are offered simultaneously but the presentation order differs, then the feedback type no longer causes the differences in customer reactions; rather, the order in which the different feedback types are presented causes the differences. In this study, we focus on this order effect and propose that it depends on the level of customer involvement with the feedback.

Customer involvement is the perceived personal relevance of a situation for the customer (Zaichkowsky, 1985). According to the elaboration likelihood model (ELM; Petty et al., 1983) and the heuristic-systematic model (HSM; Chaiken and Maheswaran, 1994), persuasion occurs through the relative operation of one of two routes. When people are highly involved, they are motivated and able to extensively process and elaborate issue-relevant information to form or change their judgments and exert a high level of mental energy. In this case, information tends to be processed via the central route (or via systematic processing; Cacioppo et al., 1986; Haugtvedt and Wegener, 1994). When people's involvement is low, they are relatively unmotivated or unable to engage in thorough analysis and exert little mental effort. In this case, information tends to be processed via a peripheral route (or via heuristic processing; Cacioppo et al., 1986; Haugtvedt and Wegener, 1994).

Studying the effect of message order on attitude formation, Haugtvedt and Wegener (1994) found that highly involved customers create a high level of attitude strength for the

first message. This can be explained by the elaboration likelihood model (Cacioppo *et al.*, 1986). Customers in a high elaboration mode integrate the first message with their existing knowledge structure much more than those in a low elaboration mode. They also create supportive attitudes towards the first message by transforming the underlying belief structure (or schema). As a result, when they are exposed to an opposing message followed by the first message, they might consider the opposing message as an attack and resist changing the attitude already formed by the initial message (Cacioppo *et al.*, 1986; Haugtvedt and Wegener, 1994). Thus, when receiving additional feedback, highly involved customers are likely to defend the opinion developed from processing the initial feedback.

On the other hand, customers with low involvement are not highly motivated to elaborate the initial message (Haugtvedt and Wegener, 1994). Hence, an opposing message could offset the reaction to the initial message and create a convergence at a neutral point (Saqib, 2006). As a result, customers with low involvement are not likely to fully form an opinion after the initial message (Haugtvedt and Wegener, 1994).

When designing customer feedback, service providers should incorporate customers' emotional and cognitive reactions to the feedback in the design. In the tipping context, for example, customers' emotional reactions such as a positive mood formed by the server's note on the back of the customer's check resulted in a higher tip percentage (compliance; Rind and Strohmetz, 2001). In the healthcare context, Dellande *et al.*, (2004) found that cognitive reactions such as motivation are key attributes in gaining compliance. Taken together, we propose two mediating variables for the effect of feedback on compliance intention: feedback satisfaction, which is both a cognitive and an affective evaluation of the feedback experience (Jawahar, 2006), and motivation, which is a cognitive process involved in achieving the goal (Cialdini and Goldstein, 2004).

To enhance customer compliance, building a positive relationship between the service provider and the customer is one of the most highly advocated approaches (Vermeire et al., 2001). In the education setting, for example, student satisfaction was higher when receiving positive feedback than when receiving negative feedback (van de Ridder et al., 2015). In addition, positive comments help establish the bond between service providers and customers and increase feedback satisfaction (Shemwell et al., 1998). Moreover, in the healthcare setting, customer involvement is positively related to patient commitment to continue or strengthen this relationship (Barksdale, 1997). Therefore, when highly involved customers receive positive feedback first, they build a positive attitude toward the service provider based on that initial information (Webster and Sundaram, 2009). Once customers form an attitude toward a service provider, they are reluctant to change it (Haugtvedt and Wegener, 1994). A halo effect also occurs, and that initial evaluation influences the satisfaction of the current service encounter (Garnefeld and Steinhoff, 2013). Therefore, when a customer is highly involved, the initial positive feedback exerts a halo effect on any subsequent negative feedback and mitigates any potential negative effect, which leads to higher compliance intention through feedback satisfaction. On the other hand, when customers receive negative feedback first, they form a negative attitude toward the service provider, and the effect of positive feedback is mitigated. As a result, compliance intention is lowered through lower feedback satisfaction.

In addition, giving feedback is useful in encouraging recipients to think about their performance and the ways by which they might improve (Cantillon and Sargeant, 2008). Being motivated means being moved to do something (Eccles and Wigfield, 2002). When people receive positive feedback, they may try to reinforce their good practice and raise their standard (Kluger and Denisi, 1996) and eventually produce improvements in future

performance (Nasr et al., 2014). Although positive feedback influences motivation, previous research showed that negative feedback is more effective in increasing motivation for tasks (Van Dijk and Kluger, 2011; Vancouver and Tischner, 2004), perhaps because negative information is more distinctive and informative in helping achieve a given goal (Kanouse, 1984). Additionally, when feedback addresses the gap between the actual and the ideal performance (DeNisi and Kluger, 2000), emphasizes a consumer's lack of accomplishment, and shows how performance can be improved (i.e., negative feedback; Finkelstein and Fishbach, 2012), it is effective in enhancing motivation for improvement (Van Dijk and Kluger, 2011).

According to the prospect theory (Kahneman and Tversky, 1979), people make decisions relative to reference points rather than in isolation. In the case of positive–negative feedback, the reference point is set by the positive feedback that is presented first. When customers receive negative feedback sequentially after the positive feedback, they are likely to experience a loss from the reference point and will therefore try to fill the gap (loss). In other words, they are likely to be highly motivated to fill the gap by improving their performance. In the case of negative–positive feedback, the reference point is set by the negative feedback. When customers receive positive feedback sequentially after negative feedback, they are likely to experience a gain relative to the reference point. In other words, they may feel that their status improved. As a result, they are not strongly motivated to improve and comply with the feedback. This applies strongly to highly involved customers, who process information via the central route.

However, when customers are not highly involved, feedback order is not likely to show any effect on their compliance intention since customers are likely to be unaware of and unconcerned about the encounter (Zaichkowsky, 1985). For example, patients with low

involvement are unaware of and unconcerned about their state of wellbeing and are not motivated to improve and/or maintain their health or quality of life (Michaelidou and Hassan, 2008; Newsom et al., 2005). Therefore, we posit that customers with low involvement are less influenced by the order of the feedback type.

Thus, we propose hypotheses *H1* and *H2* as follows:

*H1.* The order effect of the feedback type on a) feedback satisfaction, b) motivation, and c) compliance intention is moderated by the customer involvement level. Specifically, highly involved customers show higher feedback satisfaction, motivation, and compliance intention when positive feedback is offered first. However, customers with low involvement are less affected by the order of the feedback type.

*H2.* a) Feedback satisfaction and b) motivation mediate the moderation effect of the order effect of the feedback type and customer involvement level on compliance intention.

Our proposed research model for the moderation effect of feedback order and customer involvement level is shown in Figure 1.

[Insert Figure 1. here]

### *Repetition effect*

When negative feedback is “sandwiched” between positive feedbacks, the feedback as a

whole reduces the discomfort and anxiety of the recipient and increases motivation, receptivity, and engagement (Dohrenwend, 2002; Henley and DiGennaro Reed, 2015; Milan *et al.*, 2006). Hence, we can infer that when positive feedback is repeated, customers' commitment level will increase, resulting in improved feedback satisfaction, motivation, and compliance intention.

When the sequence is reversed (i.e., when positive feedback is sandwiched between negative feedbacks), feedback givers repeat negative feedback in the hope that the recipients would remember the repeated negative message better and correct their actions so as to reduce the goal discrepancy and enhance motivation (Ashford and Tsui, 1991). However, the initial negative feedback and repeated negative comment could hinder the building of positive reactions and rather strengthen the negativity effect, which is weighing negative information greater than positive information in forming evaluative judgments (Ahluwalia, 2002). Therefore, repeated negative feedback could have an adverse effect and undermine feedback satisfaction, motivation, and compliance intention.

Furthermore, advertisement research revealed that the customer involvement level moderates the repetition effect. Compared to customers with low involvement, highly involved customers require less repetition in achieving the maximum impact (Weiyo and Lawton, 1986). This means that repetition effects are stronger for customers with low involvement than for those with high involvement (Schmidt and Eisend, 2015). Since customers with low involvement show a low level of attitude strength for the message when it is first presented (Haugtvedt and Wegener, 1994), they require messages to be repeated so that they can become familiar with the stimulus (Schmidt and Eisend, 2015). Thus, we predict that the effect of a repeated message on feedback satisfaction, motivation, and compliance intention will be stronger for customers with a low level of involvement.

Furthermore, using the same support we used for *H2*, we hypothesize that feedback satisfaction and motivation with repeated feedback mediates the repetition effect of the feedback type on compliance intention.

Taken together, we propose the following:

- H3.* The repetition effect for the feedback type is stronger among customers with low involvement than among those with high involvement. Specifically, when negative feedback is sandwiched between positive feedbacks, customer satisfaction, motivation, and compliance intention increases. However, when positive feedback is sandwiched between negative feedbacks, customer satisfaction, motivation, and compliance intention decreases.
- H4.* a) Feedback satisfaction and b) motivation mediates the effect of the repetition effect of the feedback type and customer involvement level on compliance intention.

Our proposed research model for the moderation effect of feedback repetition and customer involvement level is shown in Figure 2.

[Insert Figure 2. here]

## **Methodology**

### *Study context*

We chose a healthcare setting as our study context because the customer role is critical to determining the success of this service (Hausman, 2004). Doctors' feedback to patients is essential in inducing customers to take an active role in sharing relevant information such as their current status, desired outcomes, and level of comfort with risk (Gallan *et al.*, 2013). The specific healthcare context chosen for this study is a doctor giving feedback to a patient following a health checkup.

### *Study design*

We employed a 2 (feedback order: positive feedback first vs. negative feedback first) x 2 (involvement level: high vs. low) between-subject quasi-experimental design to test the order effect of the feedback type. Since the involvement level can vary according to personal traits such as health consciousness, we first blocked the groups using a screening question (e.g., "compared to other people you know, how concerned or conscious are you about your health"). Then, we assigned respondents who answered "very concerned" or "more concerned than average" to the high involvement scenario and those who answered "not concerned at all" or "less concerned than average" to the low involvement scenario. The involvement level was manipulated in the first part of the scenario. In the high (low) involvement scenario, participants were asked to imagine that they were very concerned about their health (that they were not particularly concerned about their health). We manipulated the level of customer involvement further by health consciousness, interest in checkups, and willingness to pay the checkup fee. At the end of the first part of the scenario, respondents were asked to imagine that they had their examination in the morning and they were waiting for the doctor's

consultation on the result. We present the screening questions, manipulation of involvement level, and an overview of scenario in the appendix.

The second part of the scenario showed the detailed content of the doctor's consultation on the result. The only manipulated factor was the order of the feedback type given by the doctor. Within each block (high involvement level vs. low involvement level), the order of the feedback type was randomly distributed. In the positive–negative feedback scenario, the doctor offered two positive results first and then two negative results. In the negative–positive feedback scenario, the doctor offered two negative results before two positive results. In order to test the repetition effect, the first message was repeated at the end.

#### *Potential confounds control*

To control for the effect of the variables other than the order of the feedback type, we first identified potential variables that could be influential. One was the communication style displayed by the doctor—either affiliative or control style. Affiliative styles are related positively to patient satisfaction, whereas control styles are related negatively (Buller and Buller, 1987; Webster and Sundaram, 2009). We designed our scenarios to be neutral between these two styles. The second variable was the feedback content style—either developed or undeveloped (McGrath *et al.*, 2011). Neutrality between these two feedback styles was maintained across all scenarios. The third variable was length of relationship. Patient–doctor relationships are associated with compliance (Ong *et al.*, 1995). Since long-term relationships influence the patients' satisfaction (Dellande *et al.*, 2004), in our scenarios, the participant visits the doctor for the first time to obtain feedback following a health checkup. We also maintained the level of the seriousness of the health condition, and the checkup results consisted of the patients' muscle mass on their arms and legs, level of cholesterol, and blood

pressure.

### *Data collection and sample*

We conducted an online survey through MTurk. With the goal of collecting a total of 240 responses (at least 30 valid responses for each scenario), we collected slightly more than 880 responses. About 400 respondents (45% qualified response rate) passed the screening criteria of having a medical checkup within two years and being 25 years old or older. After eliminating responses with incorrect answers to questions regarding the presented feedback order and repeated message type, we obtained 301 valid responses (34% valid response rate). The distribution of these responses across the four scenarios is shown in Table 1.

[Insert Table 1. here]

Respondents were relatively equally distributed between two genders (47.8% male and 52.2% female). The majority (81.2%) were aged between 26 and 45. Respondents were well-distributed across diverse education groups and income groups, as shown in Table 2. Most of the respondents (89%) received a health checkup at least every two or three years.

[Insert Table 2. here]

### *Measures for customer response variables*

All customer response variables (feedback satisfaction, motivation, and compliance intention) were measured on a 7-point Likert scale ranging from “strongly agree” to “strongly disagree.” Satisfaction with feedback was defined as the extent to which respondents evaluate the quality of the feedback cognitively and affectively. We adopted a 4-item satisfaction with feedback scale from Jawahar (2006), and slightly modified it for the health checkup situation.

Health motivation was measured as the patients' goal-directed incentive and their intention to engage in healthy behaviors to maintain and/or improve their health condition after receiving the consultation (Moorman and Matulich, 1993). Compliance intention was measured as the extent to which respondents intend to adhere to the doctor's feedback (Seiders *et al.*, 2015).

To evaluate the construct validity of our measures, we performed a confirmatory factor analysis. Of the four feedback satisfaction items, six health motivation items, and three compliance intention items, we used only the items with factor loading greater than 0.7 (Fornell and Larcker, 1981). The items used in our analysis are listed in Table 3. The reliability was acceptable (composite reliability > 0.7; Bagozzi and Yi, 1988). The convergent validity was established at an AVE value greater than 0.5.

[Insert Table 3. here]

#### *Manipulation and realism check*

Respondents were asked to evaluate their level of involvement in the medical checkup described in the scenario using eight items (e.g., important, of concern, relevant, means a lot, valuable, beneficial, interesting, vital) on a 7-point Likert scale (Zaichkowsky, 1985). The average score of the high involvement scenario ( $M_{\text{high involvement}} = 5.90$ ) was significantly higher ( $F(1, 300) = 181.36, p < 0.001$ ) than the low involvement scenario ( $M_{\text{low involvement}} = 4.36$ ). The doctor's communication style was evaluated to be relatively neutral ( $M = 4.46, SD = 0.65$ ), and the feedback content style was also shown to be neutral ( $M = 4.10, SD = 0.49$ ). Finally, the scenario's realism check was shown to be acceptable ( $M = 5.31, SD = 1.23$ ).

## Results

To test *H1a,b,c*, we conducted a MANOVA with feedback satisfaction, motivation, compliance as the dependent variables and the order of the feedback type and involvement level as the independent variables. These results are shown in Table 4.

[Insert Table 4. here]

The results regarding *H1a* with feedback satisfaction as the dependent variable support the predicted moderation between the order and the involvement level ( $F = 4.09, p < 0.05$ ). Therefore, *H1a* was supported. A contrast analysis revealed that highly involved respondents expressed higher feedback satisfaction when positive feedback was offered first ( $M_{\text{positive-negative}} = 5.56, M_{\text{negative-positive}} = 5.07; F(1, 93) = 4.56, p < 0.05$ ). Among respondents with low involvement, the difference was not significant. These results are shown in Figure 2.

[Insert Figure 3. here]

The results regarding *H1b* with motivation as the dependent variable showed the main effect of involvement level, indicating that highly involved respondents were more strongly motivated by the feedback than respondents with low involvement ( $M_{\text{high involvement}} = 6.04$  vs.  $M_{\text{low involvement}} = 5.48; F(1, 167) = 2.744, p < 0.01$ ). The moderation was also significant ( $F = 10.114, p < 0.01$ ), supporting *H1b*. A contrast analysis revealed that highly involved respondents were more strongly motivated when positive feedback was offered first ( $M_{\text{positive-negative}} = 6.25$  vs.  $M_{\text{negative-positive}} = 5.67; F(1, 93) = 8.459, p < 0.01$ ). Among respondents with low involvement, the difference was not significant. These results are shown in Figure 3.

[Insert Figure 4. here]

The results regarding *H1c* with compliance intention as the dependent variable showed the main effect of involvement level to be significant, indicating that highly involved respondents expressed higher compliance intention than did respondents with low involvement ( $M_{\text{high involvement}} = 5.80$  vs.  $M_{\text{low involvement}} = 5.20$ ;  $F(1, 167) = 18.406$ ,  $p < 0.01$ ). The moderation effect between feedback type order and involvement level was also significant ( $F = 6.811$ ,  $p < 0.01$ ), supporting *H1c*. A contrast analysis revealed that highly involved respondents expressed greater compliance intention when positive feedback was offered first ( $M_{\text{high involvement}} = 5.99$  vs.  $M_{\text{low involvement}} = 5.60$ ;  $F(1, 93) = 4.513$ ,  $p < 0.05$ ). Among respondents with low involvement, the difference was not significant. These results are shown in Figure 4.

[Insert Figure 5. here]

We conducted moderated mediation analyses to test H2a and b, which propose that feedback satisfaction and motivation would mediate the effect of feedback type on compliance intention and that the mediation effect would be stronger when customers were highly involved. We tested these hypotheses using PROCESS model 8 (Hayes 2013), which allowed us to probe the conditional indirect effect of feedback type order. The order of feedback type was used as a predictor, involvement level as a moderator, feedback satisfaction and motivation as mediators, and compliance intention as a dependent variable. Since our predictor variable and moderating variable are categorical, we used dummy variables to discern them. In the moderated mediation analysis, we used the 10,000 bootstrap samples with 95% confidence intervals (CIs) as recommended in Hayes (2013). The moderated mediation effects of feedback satisfaction (95% CI, 0.01 to 0.28) and motivation (95% CI, 0.25 to 1.06) were both significant, and the effect of motivation was much greater ( $\beta = 0.64$ ) than the effect of feedback satisfaction ( $\beta = 0.11$ ). Specifically, with highly

involved customers, the path from the feedback type order to compliance intention through feedback satisfaction was significant (95% CI, 0.01 to 0.18). However, with customers with low involvement, the mediation effect was not significant (95% CI, -0.15 to 0.05). Further, with highly involved customers, the path from the feedback type order to compliance intention through motivation was significant (95% CI, 0.13 to 0.71), while the mediation effect was not significant (95% CI, -0.55 to 0.05) with customers with low involvement.

To test *H3*, we conducted a series of ANOVA. Among respondents with low involvement, compared to the positive–negative scenario, the positive–negative–positive scenario resulted in a significant increase in motivation ( $M_{\text{positive-negative}} = 5.31$  vs.  $M_{\text{positive-negative-positive}} = 5.71$ ;  $F(1, 92) = 3.35$ ,  $p < 0.05$ ), but the increase in feedback satisfaction ( $M_{\text{positive-negative}} = 5.01$  vs.  $M_{\text{positive-negative-positive}} = 5.33$ ;  $F(1, 92) = 2.08$ ,  $p = 0.15$ ) and compliance intention ( $M_{\text{positive-negative}} = 5.04$  vs.  $M_{\text{positive-negative-positive}} = 5.24$ ;  $F(1, 92) = 0.86$ ,  $p = 0.36$ ) was not significant. When negative feedback was repeated, feedback satisfaction ( $M_{\text{negative-positive}} = 5.22$  vs.  $M_{\text{negative-positive-negative}} = 4.51$ ;  $F(1, 57) = 3.90$ ,  $p = 0.053$ ) and compliance intention ( $M_{\text{negative-positive}} = 5.37$  vs.  $M_{\text{negative-positive-negative}} = 4.79$ ;  $F(1, 57) = 3.50$ ,  $p = 0.066$ ) decreased marginally, but the decrease in motivation ( $M_{\text{negative-positive}} = 5.68$  vs.  $M_{\text{negative-positive-negative}} = 5.27$ ;  $F(1, 57) = 1.66$ ,  $p = 0.20$ ) was not significant. Therefore, *H3* was partially supported. Among the highly involved respondents, the repetition effect was not significant for any response variable.

We tested the mediation effect in *H4* using PROCESS model 4 (Hayes, 2013) with the feedback type repeated as a predictor, feedback satisfaction and motivation as mediators, and compliance intention as a dependent variable. Since no repetition effect was found with the high-involvement group, we conducted the analysis in two consecutive runs only with the low-involvement group, using 10,000 bootstrap samples with 95% confidence intervals (CIs).

In the first run, we compared the positive–negative group with the positive–negative–positive group (predictor variable) using dummy codes (positive–negative–positive: 1, positive–negative: 0). The mediation effects of neither feedback satisfaction (95% CI, -0.02 to 0.28) nor motivation (95% CI, -0.01 to 0.59) were significant. In the second run, we compared the negative–positive with negative–positive–negative condition (predictor variable) using dummy codes (negative–positive–negative: 1, negative–positive: 0). The mediation effect of feedback satisfaction (95% CI, -0.46 to -0.02) on compliance intention was significant, but the mediation effect of motivation (95% CI, -0.76 to 0.12) was not. Therefore, H4 was partially supported. Our results are summarized in Table 5.

[Insert Table 5. here]

## **Discussion and implications**

Our study results provide several implications for service feedback management (Nasr *et al.*, 2014; Wirtz *et al.*, 2010), healthcare service studies (Dellande *et al.*, 2004; Ong *et al.*, 1995; Reblin *et al.*, 2012; Seiders *et al.*, 2015; Verheul *et al.*, 2010), and service design research (Victorino *et al.*, 2013). The most important outcome of the study is the confirmation of the order effect (*H1*): customer reactions to feedback, such as feedback satisfaction, motivation, and compliance intention, differ depending on the order in which positive and negative feedbacks were offered in a message. Our study result also showed that the order effect depends on the customer involvement level. Specifically, the order mattered only when customers were highly involved in the service, and customer reactions were more positive when positive feedback was offered first (*H1a,b,c*).

Furthermore, we found that feedback satisfaction and motivation play a significant mediating role in the moderation effect of feedback type order and customer involvement

level on compliance intention (*H2a,b*). This mediation effect was significant only with customers with a high level of involvement, and motivation was a much stronger mediator than feedback satisfaction. This result indicates that for inducing customer compliance, ensuring customer motivation is more crucial than ensuring satisfaction with the feedback. Hence, service management should measure the impact of a certain feedback design factor separately on motivation and customer satisfaction and consider the impact on motivation more importantly than the impact on feedback satisfaction.

In *H3*, we hypothesized that the effect of repeated feedback is stronger for customers with low involvement than for those with high involvement (Anand and Sternthal, 1990; Calder and Sternthal, 1980; Schmidt and Eisend, 2015). The results showed that the repetition effect was meaningful only with customers with low involvement. Highly involved customers would have paid keen attention to the message when it was first offered. Hence, repetition did not create any significant impact on either *H3* or *H4*. However, low-involvement customers might not have paid such keen attention initially and might have gotten the message only when the message was repeated. Interestingly, with low-involvement customers, repeated positive feedback enhanced customer motivation but had no significant effect on feedback satisfaction and compliance intention. Repeated negative feedback marginally decreased feedback satisfaction and compliance intention but had no effect on motivation. For *H4*, we found that only among low-involvement customers, only feedback satisfaction mediates the repetition effect of feedback on compliance and only when negative feedback is repeated.

The results for *H3* and *H4* together show that the impact of repetition of a feedback type differ according to the type of feedback repeated (positive versus negative), the customer involvement level, and the type of response variable (feedback satisfaction versus motivation) and that the mediation effect is meaningful only by feedback satisfaction. Although the

repetition effect was partially confirmed, our results demonstrated the idiosyncratic reaction of the feedback satisfaction and motivation to the repetition of a certain feedback type. This finding confirms the management insight offered by *H1* and *H2* that service providers need to treat motivation and feedback satisfaction differently in designing feedback for customer compliance, and that it is motivation that has a bigger impact on customer compliance. The findings also imply that it is not necessary to repeat any type of feedback to highly involved customers. To customers with low involvement, however, service providers might repeat positive feedback for higher motivation, but should avoid repeating negative feedback.

Thus, this study demonstrated the importance of the order of the feedback type and the repetition of a certain feedback type as design factors of customer feedback and revealed the importance of customizing customer feedback design according to the customer involvement level.

#### *Theoretical implications*

Customer performance in the service process is critical to ensuring successful service outcomes for both service organizations and customers (Bitner *et al.*, 1997). Hence, in services such as healthcare and education, service providers offer customers customized advice or feedback to induce their active role-play (Seiders *et al.*, 2015). In this study, we examined a more effective way of offering feedback to customers to enhance their willingness to comply with the feedback. While communication-related studies revealed that a service provider's communication style or the feedback content type affects a service customer's reaction (Buller and Buller, 1987; Mandana, 2007; Ong *et al.*, 1995; Reblin *et al.*, 2012), no study has examined the order effect or repetition effect of the feedback type on customer satisfaction, motivation, or compliance intention, particularly under different

customer involvement scenarios. Our study aims to fill this gap in the research.

Our study extends the extant feedback research in several ways. First, we empirically demonstrated the importance of effectively designing the feedback given to service customers by service providers in service settings such as healthcare. Despite its importance, feedback studies in the service management domain have received less academic attention than in other domains such as organizational management (Degregorio and Fisher, 1988; DeNisi and Kluger, 2000; Henley and DiGennaro Reed, 2015). Our study elevates the importance of managing service provider feedback for its effect on the feedback recipients' feedback satisfaction, motivation, and compliance intentions. Second, we extend existing studies that have predominantly addressed the effect of a single feedback type (Finkelstein and Fishbach, 2012) by addressing the effect of two opposing feedback types offered simultaneously in a message. Given that offering both types of feedback is more common, our scenarios are more realistic.

Third, while existing feedback studies examined the effect of feedback design components on customer reactions such as feedback seeking behaviors (Ashford and Tsui, 1991; Renn and Fedor, 2001), we proposed and examined new customer response variables such as customer compliance intention with the feedback. Fourth, to help better understand the customers' feedback receiving mechanism, we attempted to explain how the order affects compliance intention, and when the order affects compliance intention and when it does not. We found that the effect of order on feedback satisfaction, motivation, and compliance intention is moderated by the involvement level and that the moderated effect on compliance intention is mediated by feedback satisfaction and motivation.

Fifth, our study extended existing studies on the positioning of different feedback

types within a message such as feedback sandwich studies (Dohrenwend, 2002; Henley and DiGennaro Reed, 2015). Specifically, we offered empirical evidence for the feedback sandwich studies by demonstrating the effect of a repeated feedback type. Our study demonstrated that the repetition of positive feedback, also known as the “feedback sandwich,” is effective in increasing motivation of customers with a low level of involvement. We extended the feedback sandwich study by sandwiching positive feedback between negative feedbacks and confirmed its undesirability, particularly with customers with low involvement.

### *Managerial implications*

Services need to be well-designed to gain intended outcomes. Service design refers to the activity of planning and organizing people, infrastructure, communication, and material components of a service in order to improve its quality and the moderation between service providers and customers (Marger, 2009). Customer feedback should be treated as a factor of service design. In professional services, such as healthcare and education, service providers give customized expert feedback to customers in order to induce their compliance (Seiders *et al.*, 2015). Since gaining customers’ compliance is a key to successful service delivery, designing feedback is an important managerial challenge. An optimized feedback giving sequence can help service practitioners gain more customer compliance. Particularly, giving negative feedback such as delivering bad news is a difficult and uncomfortable task for service providers and requires emotional labor from them (Leidner, 1999; Victorino *et al.*, 2013). Well-designed feedback can help reduce service employees’ stress.

In this vein, our findings provide important insights for managers in designing customer feedback. First, the effectiveness of the feedback can vary by the presentation order of feedback types and that with highly involved customers, giving positive feedback first is

more effective in generating higher customer satisfaction with the feedback, stronger motivation to follow the feedback, and a stronger will to comply with the feedback. Interestingly, Legg and Sweeny (2014) found that the majority of news recipients prefer receiving bad news first, which is contrary to our finding with highly involved customers. This result shows that what customers say what they prefer might be different from what they actually prefer.

Our study found that in inducing customer compliance, customer motivation is more important than customer satisfaction with the feedback. Given that a successful delivery of service requires customer compliance, this finding means that when there is a trade-off between feedback satisfaction and motivation in designing customer feedback, it might be desirable for managers to choose motivation. Only when complying with the service providers' directions can customers accomplish their goal of purchasing the service and attain better service outcomes, which eventually satisfies customers (Dellande et al., 2004).

The findings regarding the repetition effect imply that service managers should never repeat negative feedback. Only when customers are not highly involved, service providers should repeat positive feedback to gain higher motivation. When customers are highly involved, there is no need to repeat any feedback type. This finding implies that when designing customer feedback, service managers should be conscious of the customer involvement level and customize feedback to the customer's involvement level.

### **Limitations and future research directions**

This study can be improved and extended in the following ways. First, our study suffers from the general limitations of studies that adopt a written scenario method (Calder *et al.*, 1981). For example, in order to focus on the order effect of feedback type, we tried to maintain the

proportion of positive and negative feedback as equivalent as possible in the scenario. However, in reality, the proportion of positive and negative feedback can vary widely. Future studies can adopt a field study to overcome these challenges. Second, our study tested the moderating role of only one factor, the customer involvement level. Future studies can explore and investigate other possible moderating factors. For example, customer expertise could serve as a potential moderator.

Third, we conducted our study only in one service context, healthcare. Future studies should expand this study to other service settings to test how generalizable our findings are and to address the factors unique to those other settings. Fourth, to control for the effect of the interpersonal relationship quality that people develop over time, such as shared vision and trust (Wirtz *et al.*, 2010), we manipulated the scenario as the first encounter between the service provider and customer. Future studies could examine the effect of provider-customer relationship quality on feedback outcomes. Fifth, the sample was limited to U.S. customers. Future research could study respondents from a broader base of countries and examine potential cross-cultural differences.

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