When does a service guarantee work? The roles of the popularity of service guarantees and firm reputation

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Abstract
Despite substantial research on service guarantees in the literature, little study has examined how the popularity of service guarantees (SG) in a particular industry affects the effectiveness of SGs. Through four studies, the authors demonstrate an interactive effect between the market-level factor (the popularity of SGs) and the firm-level factor (firm reputation) in affecting consumer’s responses to a travel agency’s actions in (not) offering an SG. When offering SGs is popular in a given market, consumers perceive a loss from the absence of SGs, and a high-reputation agency will outperform a low-reputation agency in consumer service evaluation when neither agencies offer SGs. However, if both agencies provide guarantees, the SG offered by the high-reputation agency does not necessarily lead to greater service evaluation than that offered by the low-reputation agency. The results reverse when offering SGs is rare in the market, as consumers perceive a gain from the presence of SGs.

Keywords: Service guarantee, Prospect theory, Signaling theory, Popularity of service guarantees, Firm reputation

1. Introduction

Prior research suggests that service guarantees (SGs) serve as a potentially powerful tool in acquiring risk-sensitive consumers and maintaining superior service quality (Liden & Stilten, 2003; Ostrom & Iacobucci, 1998). Typical of service industry in general, travel industry provides services that are heterogeneous, diverse and ambiguous in quality. As a result, the perceived high risk associated with travel service decreases consumers’ purchase intentions. The use of risk relievers, therefore, is even more important in the travel industry than others. Employing SGs under these circumstances will effectively reduce perceived risks and enhance quality perception, which in turn lead to increased purchase intentions for travel services (Hocutt & Bowers, 2005; McCollough & Gremler, 2004; Tsaur & Wang, 2009). Indeed, SG have been implementing for years in various tourism relevant industries. For instance, the Hampton Inn hotels commanded the highest customer retention rate in the lodging industry as a direct result of their service guarantee implementation (Tax & Brown 1998).

However, researches have also reported that SGs may not be a “panacea” for all types of services and that offering these guarantees does not necessarily provide service firms with a competitive advantage (Roth, Gray, Singhal, & Singhal, 1997; Tucci & Talaga, 1997). For example, based on their synthesis of 109 studies on SGs, Hogreve and Gremler (2009) noted that prior studies reported inconsistent results concerning the impact of SGs on consumers’ purchasing intentions and that no sales increases resulted from implementing an SG. Similarly, a recent study also found that simply offering a service guarantee does not result in greater market value (Meyer, Gremler & Hogreve, 2014).

Why do particular firms achieve enviable success using SGs, whereas other firms suffer tremendous losses? The extant findings
in the SG domain suggest that any simple answer to the effectiveness of SGs may be over-generalized and that a closer examination of this issue is required (Hogreve & GREMLER, 2009; MEYER et al. 2014). Moreover, despite its theoretical and practical relevance to the travel industry in particular and service sector in general, extant empirical research offers little insight into how the type of the travel agency, the timing of the implementation and the market environment can interactively influence the effectiveness of the service guarantee as a marketing tool. The current research contributes to service guarantee literature and tourism marketing research by identifying and examining one of the overlooked external market factors that affects SG efficacy, namely, the popularity of SGs in the travel industry.

Specifically, this paper argues that the popularity of SGs will alter the inferences tourists draw about the travel agencies announcing guarantees and thereby systematically influence the signaling effects of the guarantees. Drawing upon prospect theory and signaling theory, the authors propose that if offering SGs is a popular practice in a given travel market, then SGs become an anticipated attribute and are automatically incorporated into the default set of tourist expectations (i.e., a reference point); thus, an absence of SGs is experienced as a loss, which further produces a decrease in the service evaluation. If, however, offering SGs is rare in a given travel market, tourists will not expect an SG as a default component, and thus perceive an available SG as a gain. Therefore, the decreases in service evaluation that result from the absence of SGs in the market with low popularity of SGs will be greater than the magnitude of the increases in these metrics that result from the presence of SGs when the popularity of SGs is high.

This paper further explores how a travel agency’s reputation interacts with the popularity of SGs in the travel industry in shaping tourist inferences regarding why an SG is offered (or not offered), which subsequently influences the signaling strength of the SG. In a market where the popularity of SGs is high, tourists experience a loss if a travel agency does not offer SGs. Because a firm’s reputation can alleviate risk perception associated with the absence of SGs (Baker & Collier, 2005; MEYER et al. 2014; WIRTZ, KUM, & LEE, 2000), the authors thus predict that a high-reputation travel agency will outperform a low-reputation agency in service evaluations when neither agencies offer SGs if guarantees are common in the given market. However, if both agencies provide guarantees, the SG offered by the high-reputation agency will not necessarily lead to greater service evaluation than that offered by the low-reputation agency because the high popularity of SGs indicates a high standard of service in the given market and serves as a “cushion” for low-reputation firms that diminishes the role of firm reputation in reducing perceived risks.1

In a similar vein, when the popularity of SGs is low, tourists will experience a gain if an agency offers SGs. While both agencies may offer SGs, tourists are more likely to make a positive inference of the motive of the high-reputation agency because of the credibility implied by its reputation. Therefore, an SG offered by high-reputation agencies will lead to greater service evaluation than an equivalent offered by low-reputation agencies. However, if neither agency offers SGs, the decreases in the service evaluation resulting from the absence of SGs will not differ between the two types of agencies because consumers do not expect SGs in such situations.

The paper unfolds as follows. First, the relevant literature was reviewed and five research hypotheses were developed base on it. Then, four empirical studies were conducted to test the authors’ research hypotheses. Finally, research findings and implications were discussed.

2. Theoretical background and hypotheses

2.1. The effectiveness of service guarantees

Most of the extant literature suggests that SGs produce a positive consumer response. The presence of an SG reduces the consumers’ perceived risks and placates customer anger after a service failure (Liden & Sklen, 2003; Ostrom & Iacobucci, 1998), thereby positively influencing their service evaluations and purchase intentions (Hocutt & Bowers, 2005; McCollough & GREMLER, 2004; Tsaur & Wang, 2009). However, some scholars have indicated that SGs also pose potential risks (Tucci & Talaga, 1997) to firms, as these guarantees may produce high compensation costs, imply that the guaranteed service is imperfect, create the impression that the company is begging for business (Hart, 1993; Hart, Schlesinger, & Mahy, 1992), and even induce opportunistic consumer behaviors (Chu, Gerstner & Hess 1998; Wirtz & KUM, 2004). In other words, SGs do not invariably generate positive consumer responses but may instead cause negative consequences.

To address the inconsistencies in the reported results regarding the effectiveness of SGs, the extant literature proposes a signaling framework, suggesting that the effectiveness of SGs depends on whether the guarantee-related signals are credible, useful, and positive as perceived by targeted consumers (Chen, John, Hays, Hill, & GEURS, 2009; Harvey, 1998; Ostrom & Iacobucci, 1998). In particular, when consumers perceive a positive motive for a new SG announcement, they are more likely to view the SGs as useful (Biswas, Dutta, & Pullig, 2006; Boulding & KIRMAN, 1993; Wirtz et al. 2000). Although previous studies have explored how the signaling effects of SGs vary by firm characteristics (e.g., brand), design elements (e.g., compensation) and consumer characteristics (e.g., risk aversion) (Hogreve & GREMLER, 2009), little is known about how these factors may interact with market-level factors in influencing consumer perceptions on firm motives in an SG announcement and thus the signaling strength of an SG. For instance, in which market environments— when offering SGs is a popular versus an unpopular practice across the industry (or different markets within the same industry)— should a firm actively consider offering an SG? How should such decisions be different in line with the firm’s own characteristics (e.g., firm reputation)? In addition, how will consumer inferences regarding firms’ motives in announcing SGs vary according to the firm’s reputation and the popularity of SGs of the industry?

The current study aims to answer these questions by identifying the popularity of SGs as a critical market environment variable measured by the percentage of competitors that offer service guarantees in the same industry and examining its interaction with firm reputation in determining consumer perceptions on the motives of SG announcements and the value of SGs.

2.2. The popularity of SGs and consumer expectation in tourism industry

Although SGs have received a great deal of attention across many industries, the practice of offering SGs is more popular in some industries or markets than in others. For instance, it has been found that SGs are more common in hospitality and travel services than in other services such as banking, education, consulting services and medical services sectors (Evans, Clark & Knutson, 1996;
In the current research, the popularity of SGs was defined as the extent to which the operating firms offer SGs in a particular market. Obviously, the popularity of SGs is positively related to the number of guarantee-offering firms within a particular industry. The more firms offer SGs, the higher the popularity of SGs in the industry would be. To a certain extent, the popularity of SGs reflects the degree of competition in a particular market by services that are guaranteed; thus, it is an important market environment variable in determining SGE effectiveness. It is worth noting that tourists’ belief about the popularity of SGS is more important than the actual popularity of SGS in the market, because tourists’ responses are largely driven by their beliefs rather than the actual popularity of SGS in the market. These beliefs result not only from consumers’ daily experiences with the travel agencies, but also from the information (e.g., newspaper, advertising, word of mouth) they encountered.

Taking travel service industry as an example, the information about the popularity of SGS in the industry alters consumer expectations of whether a travel agency should offer SGS or not, therefore changing their responses to the SGS. When SGS are popular in the industry, it implies that a majority of the travel agencies offer SGS and that these guarantees may be perceived as an integral part of their service package. Therefore, a travel agency’s offering of SGS becomes a necessary aspect of its efforts to maintain parity with competing firms (Ostrom & Hart, 2000). As a result, consumers would expect that a travel agency should provide SGS to meet the industrial standard. In contrast, if SGS are only offered by a very small number of agencies in the market, consumers would not anticipate guarantees in a service package as a default component.

Because consumers (do not) expect the SG when guarantees are common (rare) in a particular industry, the popularity of SGS should lead to different consumer responses. Specifically, when guarantees are rare in a given market of the travel industry, not offering SGS meets consumers’ expectations and becomes a reference point for people to judge the value of an SG. If a travel agency offers SGS when other competitors seldom do, consumers will experience gains because the SG offered is beyond these consumers’ expectations. However, this situation changes when a majority of firms in the same market provide SGS. Specifically, offering SGS meets consumers’ expectations, and it becomes a reference point when guarantees are common in the industry. If a travel agency does not offer SGS while many other competitors do, consumers will experience losses.

In summary, the authors suggest that the popularity of SGS shifts consumers’ expectations (i.e., reference point), thus making people perceive the offering of SGS as gains (non-gains) when SGS are rare (common), and the absence of SGS as losses (non-losses) when SGS are common (rare). According to prospect theory and the principle of loss aversion (Kahneman & Tversky, 1979; Tversky & Kahneman, 1991, 1992), people make decisions based on the potential value of losses and gains rather than on the final outcomes, and people are more sensitive to losses than to gains. Thus, the extent to which including an SG makes a service package more attractive and how it increases purchase intention will depend on the popularity of SGS in the given market of the travel industry. Taken together, the authors propose the following hypotheses:

**H1.** When the popularity of SGS is low, consumers perceive a gain from the presence of SGS; when the popularity of SGS is high, consumers perceive a loss from the absence of SGS.

**H2.** The magnitude of the increases in (a) expected service quality and (b) purchase intention resulted from the presence of SGS in a market with low popularity of SGS is smaller than the magnitude of the decreases in these metrics that result from the absence of SGS when the popularity of SGS is high.

### 2.3. Firm reputation and SGE effectiveness

The extant literature on service guarantees postulate that an SG may convey credible information to consumers regarding the hidden attributes of a service offering (Harvey, 1998) and reduce the consumers’ perceived risks by revealing the actions that would occur if a problem arises with a service (Yadav & Berry, 1996). Thus, in essence, a SG functions as a signal of service quality (Ostrom & Iacobucci, 1998), or a retailer’s low-price level (Biswas et al., 2006). However, whether this signal is meaningful depends on the credibility of the SG or the likelihood that the firm will honor the guarantee’s claims (Chen et al., 2009; Wirtz et al., 2000). According to a game theoretical perspective (Boulding & Kirmani, 1993; Kirmani & Rao, 2000), when the credibility of the SG is high (for instance, when the firm has a good reputation for honoring its warranty claims), low-quality firms face a higher redemption rate due to their inferior service quality and, as a result, they incur higher service costs. Therefore, a separating equilibrium emerges such that high-quality firms would offer SG terms that low-quality firms could not match for a profit. In this case, the presence of an SG signals higher quality. By contrast, when the credibility of the SG is low (for example, when the firm is untrustworthy or ill-reputed), the presence of an SG becomes meaningless because both types of firms are able to send the same signal without incurring costs at redemption. Consequently, a pooling equilibrium emerges such that consumers cannot separate the two firm types based on the presence (absence) of an SG. In this situation, the presence of an SG does not signal higher quality.

Providing empirical support for this theorizing, Boulding and Kirmani (1993) demonstrate in a controlled experiment that an unconditional SG only exerts positive effects on customer quality judgments if the warrantor possesses relatively higher credibility (e.g., a higher reputation). In a similar vein, a recent investigation by Chen et al. (2009) reveals that SGS are more effective for hotels with better prior service histories.

Based on the reasoning above, firm reputation implies the credibility of the SG and changes consumer perceptions of firms’ motives in announcing SGS. Therefore, SGS should signal higher service quality when the firm reputation is high than when it is low. According to the source credibility bias effect (Birnbaum & Stegner, 1979; Goldberg & Hartwick, 1990), people’s response to a message depends on the source credibility of the message. For example, a persuasive message from a reputable endorser is more powerful because the audience infers a positive motive for the sender’s transmission behavior. However, the audience may infer the motives of message transmission less positively and discount the value of such persuasive messages if the sender’s credibility is low (Olson & Cal, 1984). The classic halo effect (Nisbett & Wilson, 1977; Thorndike, 1920) also suggests that people tend to judge the new products from a well-known brand more positively even though the objective quality does not differ significantly from other market equivalents. In the context of SGS, people constantly make different inferences about why an SG is provided for hotels with different reputations (Ostrom & Hart, 2000). For instance, people tend to believe that the reputed firms offer SGS because they are very confident in their service quality (i.e., a positive motive) (Wirtz et al., 2000), whereas the SGS announcements from a low-reputation firm sends a signal of begging for business (i.e., a negative motive) (Tucci & Talaga, 1997). As discussed in the previous section, consumers have different expectations of SG offerings when the popularity of SGS varies in a given market of the travel industry. How would firm reputation and the popularity of SGS jointly affect consumers’ response to SGS? The paper discusses this issue in the next section.
2.4. Firm reputation, the popularity of SGs, and consumer inferences about firms’ motives for SG announcements

Because consumers do not expect the presence of an SG when the popularity of SG is low, they will experience a gain (i.e., the value function curve is above the reference point as depicted in Fig. 1) if it is available. To what extent will such a gain vary in response to the different levels of firm reputation? While a great deal of research has identified moderators, such as the timing of the outcomes (Mowen & Mowen, 1991), market experience (List, 2004) and consumers’ involvement (Saqib, Frohlich, & Bruning, 2010) that can shift the slope of prospect theory’s well-known value function, the authors believe that firm reputation is also an important factor that may alter the slope of the value curve of SG offerings in the given context. Specifically, the authors suggest that consumers see more gains if SGs are provided by high-reputation firms because they believe that the firm has a more positive motive compared to the low-reputation firms in launching SGs (Wirtz et al. 2000) and consequently perceive the SGs as a more credible signal of service quality. As shown in Fig. 1, firm reputation changes the slope of the value curve for offering SGs such that the slope is higher when SGs are provided by a high-reputation firm than when they are provided by an equivalent firm with a low reputation because consumers use the firm’s reputation as a cue to evaluate whether service promises will be fulfilled (Meyer et al. 2014).

On the other hand, when neither high-reputation firms nor low-reputation firms provide SGs and the popularity of SGs in the market is low, consumers naturally do not experience a gain but will not feel a loss either because their expectation (see the reference point in Fig. 1) in such a situation is the absence of SGs. Consumers also make inferences regarding why a firm does not offer SGs. The authors suggest that such inferences of motives will not differ significantly between the high-reputation firms and the low-reputation ones because across the given market, there are few firms that offer SGs, and it is easy for consumers to attribute the absence of SGs to the low popularity of SGs in the market for both types of firms. As a result, the impacts of the absence of SGs on consumer service evaluation will not differ between high-reputation and low-reputation firms.

Now turn to the situation in which the popularity of SGs is high. According to the authors’ theorizing, consumers see the presence of an SG as a reference point and therefore will experience a loss if it is unavailable. However, consumers will feel a lower degree of loss about the absence of SGs if the focal firm has a high reputation because they believe that the firm has a less-negative motive compared to a low-reputation firm in not offering SGs. For example, consumers may consider the fact that a high-reputation firm does not offer any SGs as evidence indicating that the firm’s service quality is excellent enough or that the firm simply does not want to pull a publicity stunt using SGs (Meyer et al. 2014; Ostrom & Hart, 2000). In addition, a good reputation serves as a cushion for consumers against the risks associated with purchasing a service (Wirtz et al. 2000); thus, a high reputation will flatten the slope of the value curve (see Fig. 2).

By contrast, when the popularity of SGs is high and an SG is available, consumers will not treat it as a substantial gain no matter whether it is offered by a high-reputation firm or a low-reputation one because the presence of SGs just meet consumers’ expectations (see the reference point in Fig. 2). In a market in which SGs are common, the motives of a new SG announcement could be easily attributed to meeting market standards other than to firm-specific purposes. Thus, consumers will have similar perceptions regarding the motives of an SG announcement regardless of the firm’s reputation. In addition, the popularity of SGs itself also serves as a credible signal of the service quality for most firms in the given market and thus makes the reputation of the individual offering firm become immaterial in quality signaling. Consequently, firm reputation will cause no difference in consumers’ service evaluations.

In summary, the authors propose the following hypotheses.

H3. When the popularity of SGs is low and SGs are available, the perceived service quality and purchase intentions are higher for high-reputation travel agencies than those with low reputations; when the popularity of SGs is low and SGs are unavailable, the perceived service quality and purchase intentions do not differ significantly between agencies with either a high reputation or a low reputation.

H4. When the popularity of SGs is high and SGs are available, the perceived service quality and purchase intentions do not differ significantly between high-reputation travel agencies and those with low reputations; when the popularity of SGs is high and SGs are unavailable, the perceived service quality and purchase intentions are higher for high-reputation agencies than for low-reputation ones.
H5. The impact of the interaction between the popularity of SGs and firm reputation on consumer responses is mediated by consumer perceptions regarding a travel agency’s motives for SG implementation.

3. Study 1: the popularity of SGs and consumer expectations

Study 1 tested whether the popularity of SGs shifts consumers’ reference point in judging the value of an SG. The study is a 2 × 2 (Guarantee availability: Available vs. Unavailable) × 2 (Popularity of SGs: High vs. Low) between-subjects design, and 118 adult consumers (60 females) from a major coastal city in China participated in this study. On average, the participants were 25.5 years old with a monthly income of 7540 RMB (approximately 1160 US dollars), and utilized travel agencies 2.30 times each year to address their travel needs. In their experiences with travel agencies, 27.97% of the participants had previously encountered service quality problems, and 11.86% of them had submitted complaints with respect to SG claims.

3.1. Method

Participants were recruited by a flyer around a business center close to the author’s campus. A research assistant intercepted passing consumers and invited them to participate in our research. For those who were interested, the research assistant then invited them to complete the study. Balancing budgetary concerns and statistical power, the authors had predetermined sample size for this study to be 120 people. Since two participants failed to complete the whole questionnaire, the final sample size for Study 1 was left to 118. Participants were randomly assigned to one of the four experimental conditions and were provided with a cover story indicating that the purpose of the research was to understand consumer travel experiences. Subsequently, they were required to read a piece of news that was allegedly quoted from a tourism newspaper; in this news item, the popularity of SGs among travel agencies was manipulated. In particular, participants in the high-popularity condition read that approximately 82% of travel agencies were manipulated. In contrast, when the popularity of SGs is low, participants did not report extra gains in terms of the value of the SG offering (M_{SG available} = 2.03 vs. M_{SG unavailable} = 2.34), t(56) = 7.04, p < 0.01. These results supported the authors’ hypothesis (H1) regarding how the popularity of SGs shifts consumers’ reference point for judging the value of the SG: when the popularity of SGs is low, participants tended to perceive the presence of the SG as a gain but did not view the absence of the SG as a loss when evaluating the value of a particular SG. When the popularity of SGs is high, however, participants perceive the absence of SG as a loss but did not view the presence of an SG as a gain. In the next three studies, the authors proceed to test hypotheses 2–5 based on this finding.

4. Study 2: the popularity of SGs and service evaluation

Study 2 sought to test the hypothesis that the magnitude of the differences in quality evaluations and purchase intentions between the absence and presence of a service guarantee is influenced by whether guarantees are common in a given market of the travel industry (H2).

4.1. Method

This study used a 2 × 2 (Guarantee availability: Available vs. Unavailable) × 2 (Popularity of SGs: High vs. Low) between-subjects design. Each participant was asked to provide evaluative judgments regarding a travel agency after reading a brief scenario. A total of 210 adult consumers (102 females) from the same coastal city participated in this study. The average participant aged 32.8 years old and earned a monthly income of 8960 RMB. On average, the participants utilized travel agencies 2.96 times each year to address their travel needs; 27.66% of the participants had previously encountered service quality problems, and 16.41% of them had submitted complaints with respect to SG claims.

The sampling method for Study 2 was the same as that explained previously for Study 1. In Study 2, the authors predetermined to stop data collection when approximately 200 participants had completed this study. The actual data collection was terminated after 210 participants responded during the week that the study was conducted. Study 2 adopted the same method and procedure as reported in study 1 to manipulate the popularity of SGs and guarantee availability, and participants were asked to imagine planning a trip and to consider purchasing a travel service from the agency described. After reading the description of the travel agency, participants were asked to evaluate the travel agency in terms of its quality and their purchase intentions. In particular, the expected service quality was measured using three items that were adapted from Boulding and Kirmani (1993), and purchase
intentions were measured with items adapted from Wirtz et al. (2000) (See Appendix 1). For a manipulation check, participants were also asked to indicate how popular they thought the practice of offering SGs was in the tourism industry on a seven-point scale (“1 = very unpopular” to “7 = very popular”). Finally, all participants responded to routine demographic questions and were then thanked and debriefed.

4.2. Results and discussion

The measurements for expected service quality (α = 0.93) and purchase intention (α = 0.91) both exhibited high reliability. Thus, these items were combined to form an index for each dependent variable for further analysis. For manipulation check, participants in the high-popularity condition (M = 5.94) inferred a higher level of popularity of SGs than those in the low-popularity condition (M = 2.27, t(208) = 28.53, p < 0.01), indicating a successful manipulation.

An ANOVA regarding the expected service quality demonstrated significant main effects for the availability of a guarantee (F(1, 206) = 58.45, p < 0.01), indicating that people expected better service quality when a guarantee was available (M = 5.00) than when it was unavailable (M = 3.80). More importantly, this analysis also yielded a significant interaction between the availability of a guarantee and the popularity of SGs (F(1, 206) = 4.34, p < 0.05). Specifically, when the popularity of SGs was low, the difference in the expected quality between the guarantee-available condition (M = 5.08) and guarantee-unavailable condition (M = 4.21) was 0.87 (i.e., a gain) and significant (t(99) = 3.75, p < 0.01). However, when the popularity of SGs was high, the difference in the expected quality between the guarantee-available condition (M = 4.92) and the guarantee-unavailable condition (M = 3.39) was 1.53 (i.e., a loss) and was of a much larger magnitude (t(107) = 7.21, p < 0.01) (see Fig. 3). These findings support the authors’ hypothesis (H2) that the loss resulting from the absence of an SG when the popularity of SGs is high is larger than the gain created by the presence of an SG when the popularity of SGs is low.

An additional ANOVA on purchase intentions was conducted, which offered similar results. The main effects of the availability of a guarantee (F(1, 206) = 51.13, p < 0.01) were significant, suggesting that the participants were more likely to make a purchase when a guarantee was available (M = 4.16) than when it was unavailable (M = 2.64). The interaction between the availability of a guarantee and the popularity of SGs was again significant (F(1, 206) = 5.05, p < 0.05). When the popularity of SGs was low, the decline in purchase intentions that occurred due to the absence of an SG was 1.04 (t(99) = 3.48, p < 0.01). However, when the popularity of SGs was high, the decline in purchase intentions if an SG was missing had an even greater value of 2.0 (t(107) = 6.97, p < 0.01).

In support of hypothesis 2, when SGs are popular and are regarded as an indispensable part of the service package, the absence of an SG is experienced as a particularly painful loss by consumers, leading to a large decrease in the perceived service quality and purchase intention that is approximately twice as large as the increases in these measures resulting from the presence of an SG when SGs are rare. Therefore, a travel agency’s decision to issue an SG to maintain parity with competing firms is particularly important when these guarantees demonstrate a sufficiently high popularity of SGs.

5. Study 3: the interaction between the popularity of SGs and firm reputation

Study 3 examined how firm reputation and the popularity of SGs interactively affects consumers’ responses to the presence or the absence of an SG in a service offering. Specifically, the authors propose that when the popularity of SGs is low, consumer service evaluation is higher for high-reputation firms than for low-reputation ones if both types of firms offer SGs. However, the service evaluation will not differ significantly if neither firm provides SGs (H3). By comparison, when the popularity of SGs is high, the service evaluation will not differ significantly between the high-reputation and the low-reputation firms if SGs are available, but it will be much higher for the former if SGs are unavailable (H4). Study 3 also sought to test the proposed mechanism that consumer perceptions regarding the firm’s motives for implementing (or not implementing) SGs underlies the effects of firm reputation and the popularity of SGs on service evaluations (H5).

5.1. Method

A total of 249 adult consumers (112 females) participated in this study. On average, the participants were 31.7 years old with a monthly income of 8750 RMB, who utilized travel agencies 3.22 times each year to address their travel needs. In their experiences with travel agencies, 24.10% of the participants had previously encountered service quality problems, and 10.44% of them had submitted complaints with respect to SG claims.

The study used a 2 (Guarantee availability: Available vs. Unavailable) × 2 (Firm reputation: High vs. Low) × 2 (Popularity of SGs: High vs. Low) between-subjects design. The study procedure was similar to that used in studies 1 and 2; however, in addition to manipulating the availability of a guarantee and the popularity of SGs, firm reputation was also manipulated in the current study by providing participants with a report on the travel agency that detailed its general ranking, customer complaint rate, and customer satisfaction scores. Participants in the high-reputation condition were led to believe that the travel agency was a National A-Class Agency with a customer complaint rate much lower than the industry average and a customer satisfaction score slightly higher than the industry average. By contrast, in the low-reputation condition, participants read that the travel agency was a National B-Class Agency with a customer complaint rate slightly higher than the industry average and a customer satisfaction score slightly lower than the industry average.

After reading all of the materials, participants were instructed to evaluate the service quality of the travel agency and indicated their purchase intentions. In particular, service quality expectations (α = 0.85) and purchase intentions (α = 0.79) were measured using the items described in study 2, and both of these measurements demonstrated high reliability and were thus averaged to form indices for each variable.

In addition, Study 3 also measured the positivity of participants'
perception of the firm’s decision to either offer an SG or decline this option. In particular, participants in the guarantee-available condition indicated their agreement with eight items that measured the positivity (negativity) of their perception of the firm’s offering behavior, while participants in the guarantee-unavailable condition answered eight different questions that assessed the positivity (negativity) of their perceptions of the firm’s non-offering behavior (see Appendix 1). All of the items were measured on seven-point scales (“1 = strongly disagree,” “7 = strongly agree”). The measures for the positive (α = 0.88) and negative (α = 0.84) perceptions of the offering (i.e., guarantee-available conditions) as well as for the positive (α = 0.78) and negative perceptions (α = 0.83) of the non-offering (i.e., guarantee-unavailable condition) exhibited high reliability and were thus averaged to form a single index for each.

Finally, participants responded to manipulation checks and routine demographic questions and were then thanked and debriefed.

5.2. Results and discussion

For a manipulation check, participants were asked to indicate their answers to the following items: (1) “How popular is the practice of offering service guarantees in the tourism industry?” (“1 = very unpopular,” “7 = very popular”), and (2) “Does the firm have a good or a bad reputation?” (“1 = very bad reputation,” “7 = very good reputation”). A 2 × 2 × 2 ANOVA on the perceived firm reputation revealed a significant main effect of reputation manipulation (F(1, 241) = 317.36, p < 0.01) and no other main effects or interaction effects (p > 0.20), indicating that the reputation was perceived to be higher in the high-reputation condition (M = 5.03) than in the low-reputation condition (M = 2.13).

Another ANOVA on the perceived popularity of SGs indicated the significant main effect of the popularity of SGs manipulation (F(1, 241) = 102.82, p < 0.01) and no other effects (p > 0.30), suggesting that participants in the high-popularity condition (M = 5.18) believe the practice of offering an SG was more popular than those in the low-popularity condition (M = 3.06). These results suggest successful manipulations.

5.2.1. Expected service quality and purchase intention

A 2 × 2 × 2 ANOVA on the expected service quality revealed a main effect for the availability of a guarantee (F(1, 241) = 87.14, p < 0.01), a main effect for firm reputation (F(1, 241) = 32.28, p < 0.01), a main effect for the popularity of SGs (F(1, 241) = 15.44, p < 0.01), a guarantee availability × the popularity of SGs two-way interaction (F(1, 241) = 6.26, p < 0.05), and a three-way interaction (F(1, 241) = 10.53, p < 0.01). To decompose the three-way interaction, the authors further conducted two separate 2 × 2 ANOVAs within the low-popularity and high-popularity conditions.

When the popularity of SGs was low, the ANOVA yielded a main effect for the availability of a guarantee (F(1, 121) = 20.43, p < 0.01), a main effect for firm reputation (P(1, 121) = 18.87, p < 0.01) and, more importantly, an interaction between the availability of a guarantee and firm reputation (F(1, 121) = 3.06, p < 0.08). As expected, when the popularity of SGs was low and firm SGs were available, participants’ expected service quality was higher if the guarantee was offered by a firm with a high reputation (M = 5.61) than when the guarantees were offered by a firm with a low reputation (M = 4.37; t(60) = 3.59, p < 0.01). However, the expected service quality did not differ significantly between the high-reputation firms (M = 4.25) and the low-reputation ones (M = 3.76; t(61) = 1.58, p < 0.12). These results supported hypothesis 3.

When the popularity of SGs was high, the ANOVA also yielded a main effect for the availability of a guarantee (F(1, 120) = 81.92, p < 0.01), a main effect for firm reputation (F(1, 120) = 16.67, p < 0.01) and a significant interaction between the availability of a guarantee and firm reputation (F(1, 120) = 8.65, p < 0.01). As expected, when the popularity of SGs was high and SGs were available, the service quality perceived by the participants was the same regardless of whether the guarantee-offering firm had a high (M = 4.89) or a low reputation (M = 4.68; t(60) = 0.89, ns). However, when the popularity of SGs was high and SGs were unavailable, the expected service quality was worse when participants learned that the non-offering firm had a reputation below the industrial average (M = 2.42) than when the firm had a better reputation (M = 3.74; t(60) = 4.58, p < 0.01) (see Table 1). These results supported hypothesis 4. A 2 × 2 × 2 ANOVA on the purchase intention yielded the similar results to those observed with expected service quality (see Table 1 and Fig. 4).

5.2.2. Perception of the presence of guarantees

In this study, participants in the guarantee-available conditions were asked to indicate their perceptions (both positive and negative) regarding the presence of guarantees, while those in the guarantee-unavailable conditions were asked to indicate their perceptions regarding the absence of guarantees. This specific measure allowed us to conduct a more precise analysis of how people infer the firms’ motives with respect to their decisions to offer or not to offer SGs. The results from the negative and positive perceptions were summarized in Table 1; for the sake of brevity, Study 3 only reported the results of the net perception score here (i.e., the positive scores minus the negative scores).

A 2 × 2 ANOVA on the net perception score reported by participants in the guarantee-available conditions (n = 124) yielded a main effect for firm reputation (F(1, 120) = 17.60, p < 0.01) and an interaction between the popularity of SGs and firm reputation interaction (F(1, 120) = 8.76, p < 0.01) such that if the popularity of SGs was low, participants perceived the action of offering guarantees in a more positive manner when a firm’s reputation was high (M = 1.16) than when a firm’s reputation was low (M = 0.09; t(60) = 4.59, p < 0.01). However, when the popularity of SGs was high, no significant difference was found in the net perception scores no matter whether a firm’s reputation was high (M = 0.52) or low (M = 0.12; t(60) = 0.99, ns).

The authors then tested the proposed mediation effect of consumers’ perceptions regarding offering guarantees using a mediation analysis, which was performed in accordance with the bootstrapping procedure (5000 bootstrap samples) presented by Zhao, Lynch Jr. and Chen (2010). Because the purchase intention and expected service quality were highly correlated (r = 0.64), the purchase intention was then used as the dependent variable in this mediation analysis. The results of this analysis indicated that purchase intention was predicted by both the net perception score for the presence of guarantees (B = 0.27, t = 3.29, p < 0.01) and the interaction between the popularity of SGs and firm reputation (B = 1.29, t = 2.90, p < 0.01), respectively. The net perception score for the presence of guarantees was predicted by the popularity of SGs × firm reputation interaction in the mediator model (B = 0.89, t = 2.90, p < 0.01). In the dependent-variable model, which includes the popularity of SGs, firm reputation, the net perception score and all of their interaction terms as predictors, the net perception score still predicted purchase intention (B = 0.19, t = 2.19, p < 0.05), whereas the popularity of SGs × firm reputation interaction was no longer significant (B = 0.47, t = 1.94, p > 0.05). Furthermore, the indirect effect of the popularity of SGs × firm reputation interaction through the net perception score of the presence of guarantees was significant (95%, B = 0.17, CI = 0.02 to 0.48), indicating a successful mediation through this path (see Fig. 5).
5.2.3. Perception of the absence of guarantees

A 2 × 2 ANOVA of the net perception reported by participants in the guarantee-unavailable condition (n = 125) yielded a main effect for firm reputation (F(1, 121) = 20.66, p < 0.01), a main effect for the popularity of SGs (F(1, 121) = 15.08, p < 0.01), and an interaction between the popularity of SGs and firm reputation (F(1, 121) = 7.34, p < 0.01), suggesting that when the popularity of SGs was high, participants perceived the absence of a guarantee in a more negative manner for firms with low reputations (M = −3.28) than for those with high reputations (M = −0.78; t(60) = 5.76, p < 0.01). However, when the popularity of SGs was low, the perception score was directionally higher for firms with high reputations (M = −0.41) than for those with low reputations (M = −1.01; t(61) = 1.15, ns). However, this difference did not reach significance.

A second mediation analysis was conducted for participants in the guarantee-unavailable condition to test whether the perception regarding the absence of guarantees influenced purchase intention using a bootstrapping procedure (5000 bootstrap samples). The results showed that purchase intention was predicted by both the net perception score for the absence of guarantees (B = 0.29, t = 5.48, p < 0.01), and the popularity of SGs × firm reputation interaction (B = 0.09, t = 2.20, p < 0.01), respectively. In the mediation model, the net perception score for the absence of guarantees was predicted by the popularity of SGs × firm reputation interaction (B = 0.95, t = 2.74, p < 0.01). In the dependent-variable model, the net perception score for the absence of guarantees still predicted the purchase intention (B = 0.16, t = 2.37, p < 0.05), whereas the popularity of SGs × firm reputation interaction was no longer significant (B = 0.34, t = 1.47, p > 0.10). Furthermore, the indirect effect of the popularity of SGs × firm reputation interaction through the net perception score of the absence of guarantees was significant (95%, B = 0.16, CI = 0.03 to 0.37), indicating a successful mediation through this path (see Fig. 6).

While providing supportive evidence of the authors’ hypotheses, study 3 limited its measure to service evaluations without considering how consumers perceive the monetary value of SGs. In addition, the scenario-based nature of these studies may also limit the generalizability of the findings. When consumers are free to choose, as they most likely do in a real shopping environment, how would they evaluate different service packages that contain either an SG (but are more expensive) or no guarantees (but are cheaper)?

Table 1

<table>
<thead>
<tr>
<th></th>
<th>High penetration rate of SG (reference point is SG available)</th>
<th>Low penetration rate of SG (reference point is SG non-available)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Guarantee available (no gain)</td>
<td>Guarantee available (gain)</td>
</tr>
<tr>
<td></td>
<td>Guarantee non-available (loss)</td>
<td>Guarantee non-available (no loss)</td>
</tr>
<tr>
<td></td>
<td>High-reputation (n = 31) Low-reputation (n = 31)</td>
<td>High-reputation (n = 32) Low-reputation (n = 30)</td>
</tr>
<tr>
<td></td>
<td>High-reputation (n = 31) Low-reputation (n = 31)</td>
<td>High-reputation (n = 32) Low-reputation (n = 31)</td>
</tr>
<tr>
<td>Expected quality</td>
<td>4.85(0.92)a</td>
<td>4.68(0.98)a</td>
</tr>
<tr>
<td>Purchase intention</td>
<td>4.72(1.10)a</td>
<td>4.66(1.35)a</td>
</tr>
<tr>
<td>Negative perception</td>
<td>4.22(1.04)a</td>
<td>4.49(0.92)a</td>
</tr>
<tr>
<td>Positive perception</td>
<td>4.74(1.02)a</td>
<td>4.61(1.11)a</td>
</tr>
<tr>
<td>Net perception score</td>
<td>0.52(1.25)a</td>
<td>0.12(1.68)a</td>
</tr>
</tbody>
</table>

Note: Within the guarantee available and guarantee non-available conditions, means in the same row with different subscripts are significantly different at p < 0.05. Standard deviations reported in parentheses. Net perception score = (positive perception - negative perception).

Fig. 4. Purchase intention as a function of guarantee availability, firm reputation, and the popularity of SGs (study 3).

Fig. 5. Mediation effect of perception of presence of guarantee among participants in the guarantee-available conditions (study 3).

Fig. 6. Mediation effect of perception of absence of guarantee among participants in the guarantee unavailable conditions (study 3).
How would consumers' willingness-to-pay for a service package equipped with an SG change along with different firm reputations and various levels of the popularity of SG in the industry? Moreover, whether the previous findings from the travel industry could also be generalized to other leisure services context? The next study was designed to answer these questions.

6. Study 4: willingness-to-pay for a service guarantee

A real online shopping environment was designed in study 4 to examine consumers' actual choices using behavioral measures. Specifically, study 4 measured the extent to which consumers were willing to pay for service packages with SGs by assessing their actual choices between two trade-off options: a service offering that is either “with an SG but more expensive” or “without an SG but relatively cheaper.” This behavioral measure allowed us to examine how consumers' perceived value of an SG will be influenced by different levels of firm reputations and the popularity of SGs. Meanwhile, this measure of the willingness-to-pay for SGs also helps managers to understand how to monetize the information regarding firm reputation and the popularity of SGs to price a service package. Because the absence of SGs carries no gains for the service package per se and provides little room to assess consumers’ willingness-to-pay for SGs if firms do not offer SGs, study 4 thus focuses on the situations in which SGs are available used.

6.1. Method

The study used a 2 × 2 (Firm reputation: High vs. Low) × 2 (Popularity of SGs: High vs. Low) between-subjects design. A total of 239 adult consumers (114 females) participated in the study in exchange for a monetary reward. These participants were randomly drawn from a customer database maintained by an online retailer and were given an opportunity to purchase a ticket for a karaoke entertainment service (e.g., a typical leisure service) in the retailers’ website. On an average, these consumers aged 34.2 years old, with a monthly income of 9370 RMB, and lived in various regions in China. In addition, these consumers all stated in their profiles that they were interested in karaoke, and they had all purchased karaoke coupons at least once in the past year.

To ensure a behavioral choice with real money, study 4 first created a seemingly irrelevant task to provide participants with monetary rewards to spend in the main SG study. For this purpose, participants were informed that the study was to test an online retail website, and it consisted of two sections. In the first section, participants were asked to complete a questionnaire so that the researchers could understand their online purchase experiences. After completing the questionnaire, each participant received a $5 electronic coupon and was told that it could be spent in a subsequent online-purchase task or redeemed at the end of the research.

Next, the participants were asked to make an online purchase through the retailing website using the e-coupon that they had just earned in the previous section (i.e., focal SG experiment). Participants were informed that the coupon could not be redeemed unless they had made at least one online purchase at the target website (so that the authors could obtain sufficient observations for the tradeoff choices, which is the main body of study 4), and they would receive exactly what they had purchased online and reimburse the unspent portion of the e-coupon at the end of this study.

After receiving the $5 electronic coupon, participants were then directed to the online retailing website to purchase a ticket for a karaoke entertainment service and were presented with detailed store information for ten karaoke clubs, e.g., the club name, location, contact information and a logo indicating whether the club provides an SG. The authors manipulated the popularity of SGs using the guarantee logo. For instance, in the high-popularity condition, eight out of ten clubs possessed an SG logo stating “Full-satisfaction service guaranteed, or customers will get all of their money back,” while in the low-popularity condition, only two out of the ten clubs presented the same SG logo.

As the results in study 3 show, firm reputation has a strong main effect on purchase intention. Thus, if participants were simultaneously presented with both the high-reputation and the low-reputation firms to choose from, it is not surprising that most, if not all, participants will choose the firms with high reputations. To eliminate such a dominance effect of high reputation, the authors thus presented participants two firms with the same level of reputation at a time. Specifically, participants in the high-reputation condition have to make purchase between two high-reputation clubs, and those in the low-reputation condition made purchases between two low-reputation clubs. In both cases, the two clubs with the same level of reputation were randomly selected from the ten clubs.

Study 4 manipulated firm reputation by providing different customer ratings for a club. For example, for the high-reputation clubs, participants were told that the customer ratings for the club averaged 9.5/10, while the average score for the entire industry was 8.5. Similarly, in manipulating the club with a low reputation, participants were told that the customer ratings for the club averaged 7.5/10, while the industry average was 8.5 (see Appendix 2).

The authors measured the extent to which the consumers were willing to pay for an SG by assessing their choices in the two trade-off options. That is, all participants were asked to make purchase from the following two clubs: club A provides a full-satisfaction guarantee (as indicated by the SG logo, see Appendix 2) but charges $4 for the ticket, while club B only charges $3 for the service but provides no SG. In both clubs, the ticket is valid for a 3-h karaoke service.

After participants made their purchases, they were further asked to answer a few questions about the perceived firm reputation and the perceived popularity of SGs in the entire karaoke service industry. At the end of the experiment, participants were debriefed and informed that the karaoke club from which they made a purchase might or might not actually offer an SG; all of the participants who purchased the karaoke coupon were charged by only $3 (the price without an SG).

6.2. Results and discussion

For the manipulation check, participants were asked to indicate their answers to two questions: (1) “Do you think that the two clubs you chose from have good or bad reputations?” (“1 = very bad reputation,” “7 = very good reputation”) and (2) “How popular do you think that offering service guarantees is among karaoke clubs?” (“1 = very unpopular,” “7 = very popular”). The results of an ANOVA on perceived firm reputation yielded a main effect for reputation manipulation (F(1, 235) = 73.67, p < 0.01) but no other effects (p > 0.30), indicating that participants in the high-reputation condition reported a significantly higher mean rating for the perceived firm reputation (M = 4.62) than those in the low-reputation condition (M = 2.90). Moreover, the ANOVA of the perceived popularity of SGs revealed a significant main effect for the popularity of SGs manipulation (F(1, 235) = 72.79, p < 0.01) but no other effects (p > 0.10). Participants in the high-popularity condition perceived that the practice of offering a service guarantee was more popular in the karaoke service industry (M = 5.01) than those in the low-popularity condition (M = 2.97). Altogether, these results indicate that the manipulations for both firm reputation and the popularity of SGs were successful.

We created a binary variable to indicate a service guarantee
premium by coding the participants who chose the “expensive karaoke service with an SG” as 1 and those who chose “cheaper karaoke service but without an SG” as 0 and submitted this binary variable into a logistic regression model where firm reputation, the popularity of SGs and their interaction terms were the predictors. The analysis yielded a main effect for the popularity of SGs ($B = 0.99$, $\chi^2 (1, 239) = 6.92, p < 0.01$) and, more importantly, a predicted interaction effect between firm reputation and the popularity of SGs ($B = -1.42$, $\chi^2 (1, 239) = 7.05, p < 0.01$). These results indicate that when the popularity of SGs was low, participants were more likely to purchase a ticket with an SG (even though it was more expensive) if the guarantee was offered by a firm with a high reputation (59.3%) than if it was offered by a firm with a low reputation (33.3%), $\chi^2 (1, 119) = 8.08, p < 0.01$. However, when the popularity of SGs was high, no significant difference was found in the percentage of those who purchased tickets with an SG, regardless of whether the guarantee-offering firm had a high reputation (35%) or a low reputation (43.3%), $\chi^2 (1, 120) = 0.87, n.s$ (see Fig. 7).

By assessing the participants’ actual choices, study 4 reveals how the popularity of SGs and firm reputation interactively affect consumers’ willingness to pay for an SG when it is available. When the popularity of SGs is low, consumers’ reference point is service quality that is congruent with the firm’s reputation; therefore, consumers are more willing to sacrifice economic value (e.g., $1 in the current study) in exchange for an SG offered by a high-reputation firm than for one offered by a less-reputable firm. However, when the popularity of SGs is high, consumers’ reference point changes to service with a guarantee. In this situation, the extra value of the SG becomes smaller; thus, the premium that consumers are willing to pay for an SG does not differ for firms with a high or a low reputation. These results, again, provided supportive evidences to the hypotheses (H3 and H4).

7. General discussion

SGs have been adopted by an increasing number of firms in various industries, particularly in tourism, despite the fact that the empirical evidence regarding the effectiveness and profitability of these guarantees produces mixed results (Meyer et al. 2014). While some research on SGs suggests that it is an effective tool for increasing consumer quality perception (Boshoff, 2002; Hays & Hill, 2001, 2006; Rust & Chung, 2006), other research casts doubts on the profitability of SGs, indicating that the implementation of an SG does not lead to unconditional increases in profits (Hogreve & Gremler, 2009; Roth et al. 1997; Tucci & Talaga, 1997).

This paper explores the conditions under which an SG can (or cannot) positively affect consumer responses by focusing on a previously unexamined external factor, i.e., the popularity of SGs in a given market of the travel industry. Four studies demonstrate that a high popularity of SG shifts consumers’ reference point to an inclusion of SGs; thus, the absence of a guarantee would be experienced as a loss that produces a decrease in consumer quality perception and purchase intentions. This decrease is greater in magnitude than the increase in these responses that is caused by the presence of a guarantee when the popularity of these guarantees is low because consumers’ reference point in this case is service without a guarantee (studies 1 and 2). In addition, the authors examined the interactive effect between firm reputation and the popularity of SGs on consumer responses to firms that either offer or do not offer SGs. In support of their theory, the authors find that when the popularity of SGs is high, announcing an SG exerts a similar impact on consumer service evaluation regardless of the reputation of the announcing firms. Nevertheless, not offering any guarantees in such situations imposes more losses on the low-reputation firms than on the high-reputation ones because consumers perceived the motives in not offering guarantees as more negative for the low-reputation firms. In contrast, when the popularity of SGs is low, consumers saw the motives of SG announcements as more positive for high-reputation firms (vs. low-reputation firms), which in turn led to greater increases in service evaluation. However, when both firms did not offer any guarantees, consumers experienced no losses from the absence of guarantees in an industry with low popularity of SGs; thus, there was no significant difference in consumers’ service evaluation (study 3). By examining consumers’ actual choices in a real service purchase setting, study 4 further confirmed the authors’ predictions: consumers are more willing to sacrifice economic value in exchange for an SG offered by a high-reputation firm than for one offered by a less-reputable firm, but only in an industry in which offering SGs is not a common practice. When offering SGs is common, consumers’ expectations changed to service with a guarantee, and thus, they were not willing to pay more for a service equipped with guarantees, regardless of the firm’s reputation.

On the most basic level, this research extends the signaling theory and the prospect theory to a new context in which the authors attest that the shifts in the reference point affects the signaling function of SGs. Specifically, the authors investigate how an external market-level signal (the popularity of SGs) can interact with a firm-level signal (firm reputation) to affect the signaling effectiveness of an SG. While a travel agency’s reputation requires time and effort to establish, SGs are easy promises that are yet to be fulfilled (at least for consumers who are unfamiliar with the offering firms), and popularity is essentially out of the control of any individual firm; thus, it is fair to characterize SGs as a less powerful signal than firm reputation and the popularity of SG. It is quite surprising that a good reputation (a strong signal) may not allow a travel agency that offers an SG (a weak signal) to more favorably influence consumers’ responses when the market-level signal is also at work (high popularity of SGs).

This research also provides an account that to a certain extent reconciles the contradictory empirical findings regarding the effectiveness of service guarantees in tourism industry and identifies the conditions under which the service guarantees fail to signal service quality. Do consumers fail to incorporate information about firm reputation in their evaluation of service guarantees and service quality? Alternatively, do consumers believe that being late in implementing new tactics is a poor strategy for reputable firms,
and therefore, are the benefits of offering service guarantees offset by a firm’s failure to adopt fashionable marketing tactics in a timely fashion? These questions merit further consideration.

7.1. Managerial implications

The findings of this research provide important guidelines for travel agencies who are interested in adopting SGs in their business, especially for the decision of when and how to implement SGs. Similar to other innovative marketing tactics, there is a first-mover advantage that is associated with SGs, particularly in young markets in which other quality signals (e.g., reputation) may remain undeveloped. In this situation, it is most beneficial to implement an SG at the earliest possible occasion. If the majority of the travel agencies in a given market have implemented SGs, the adoption of this type of guarantee is necessary to avoid competitive disadvantages, but it does not provide additional benefits. However, in mature markets that include firms with well-established reputations, SGs may constitute an informational signal.

In accordance with the results, the authors suggest that travel agencies choose their timing in adopting SGs based on their reputation among consumers across different markets. For a travel agency with a good reputation, the implementation of an SG as early as possible is an optimal strategy that differentiates the firm from the competing less-reputable firms. However, a travel agency with a low reputation may not wish to be a pioneer with respect to offering SGs; in fact, in this situation, the adoption of an SG may cause consumers to believe that the guarantee-offering firm is attempting to deceive its clients, which is an impression that could potentially detract from the perceived service quality of the firm in question. Thus, the travel agencies with low reputations should wait until SGs become popular before unobtrusively implementing an SG; this approach will allow these firms to remain competitive and avoid being criticized for engaging in publicity stunts.

Although firm-specific factors such as the service failure rate and the costs associated with making amends should be carefully considered prior to the adoption of an SG, market environmental factors should not be neglected. Because travel agencies make decisions regarding SGs, to ensure that the overall strategy of these firms is suitable for their situations, the authors urge them to account for not only internal and external factors but also for the possible interactions between these various considerations.

The analysis also reveals that the perceived positivity of launching SGs as signals underlies this effect. The authors find that it is the consumers’ perceptions of the travel agencies’ motives for launching (or not launching) SGs that affect their responses to these SGs and the offering firms. Moreover, as we demonstrated in study 3, this perception could be very flexible such that it could be affected by external market environment information (the popularity of SGs in a given market), internal firm-level factors (firm reputation) as well as their interactive effects. When launching SGs, travel agencies are likely to put more effort into designing the specific content while ignoring the need to communicate their good motives to consumers. One practical implication is that travel agencies should strategically communicate their reasons for offering or not offering SGs to consumers so that the consumers will not make unfavorable speculations with regard to the agency’s motives. In addition, because the motive inference determines consumer perceived SG value, travel agencies could exploit and manage factors other than firm reputation and the popularity of SGs that may influence consumers’ inferences on firm motives. For instance, the information with regard to how much money a travel agency has invested or how many people it has mobilized in SG implementation may change consumers’ perceptions of SG launches, which in turn affects their evaluation toward the service offerings. How to disclose such information on SG investment therefore strategically becomes an important managerial issue to maximize the effectiveness of SG.

Finally, the findings from study 4 provide a useful guide for managers to determine an appropriate price for a service package equipped with guarantees. According to the results, the monetary value of an SG is contingent not only on what a firm had promised (e.g., the scope of SG) but also on the firm’s reputation and the popularity of SGs in a given market. If a majority of competitors do not offer SGs, then it will be possible for a high-reputation firm to enjoy the premium by including an SG in its service package and by pricing it higher.

7.2. Limitations and future research

Despite the aforementioned implications of this paper, the current studies possess certain limitations. First, though the authors included a field study in the current research, it is worth noting that the real business environment is more complex than what was explored in the current research. Therefore, it would be better if the current research could also consider some specific conditions of a series of travel-related activities. For example, instead of offering a full-satisfaction guarantee to their customers, many travel agencies may actually provide an “attribute specific service guarantees” in which the agencies could promise their service quality specifically on a series of travel-related activities (e.g., hotel, guide service, transportation) (Jin & He, 2013). Given the interests of this paper, the current research has fixed the type of SGs as “unconditional guarantees”. Future studies may investigate how the types of guarantees (e.g., attribute-specific guarantee versus unconditional guarantee) interact with market-level and firm level factors (e.g., popularity of SGs and firm reputation) in influencing the effectiveness of SGs. For instance, compared with the attribute specific guarantee that promise the service specifically on a series of travel-related activities, an unconditional service guarantee that is offered by a travel agency with a low reputation might be regarded as “too good to be true” and therefore discredited.

Second, the current research limits its investigation to a static view with regard to the SG launch and the popularity of SG. However, it is critically important to understand whether consumers’ anticipations and their inferences on the motives of SG launch would differ when considering the dynamic nature of firms’ SG implementation and the popularity of SG. For example, in a real-market environment, travel agencies may announce a lowest price guarantee for a few months and then abrogate it but re-launch it again some time later. How would consumers’ perceptions of the motives for such a guarantee implementation and their responses toward the firms change accordingly? In particular, would the popularity of SGs still determine consumers’ reference point in such dynamic situations? Future research into these questions will provide important insight into the understanding of SG effectiveness in tourism.

Acknowledgement

The authors gratefully acknowledge the financial supports for this study from NSFC(# 71422005) and “Shuguang Program” supported by Shanghai Education Development Foundation and Shanghai Municipal Education Commission.

Appendix 1
**Expected service quality**

(1) How do you evaluate this travel agency’s overall service quality compare with the service quality of similar agencies?

The overall quality of this travel agency is

1 2 3 4 5 6 7

Much lower than average quality  Much higher than average quality

(2) How do you evaluate the overall service quality of this travel agency?

1 2 3 4 5 6 7

Low quality  High quality

(3) Please indicate your opinion regarding the likelihood that this travel agency would resolve any service failure to your satisfaction.

1 2 3 4 5 6 7

Very unlikely  Very likely

**Purchase intention**

(1) How likely are you to pick the travel agency in question over others?
(2) How likely are you to purchase from this travel agency now?
(3) How likely are you to purchase from this travel agency again?

1 2 3 4 5 6 7

Very unlikely  Very likely

**Measured items used in study 3**

Please indicate to what extent do you agree with the following descriptions.

1 2 3 4 5 6 7

Strongly disagree  Strongly agree

**Items for negative perception of offering guarantee (guarantee available conditions)**

(1) The guarantee is only a trick of this agency to acquire new customers.
(2) The guarantee communicates that this agency wants to pull a publicity stunt.
(3) The guarantee indicates that the agency is begging for business
(4) The guarantee implies that the firm’s service quality is not perfect.
Appendix 2

Manipulation of firm reputation used in study 4

**Items for positive perception of offering guarantee (guarantee available conditions)**

1. The guarantee tells me that this agency has excellent service capabilities.
2. The guarantee communicates that this agency is confident in their service quality.
3. The guarantee implies that this agency has the ability to fulfill its promises.
4. The guarantee communicates the agency’s commitment to high service quality.

**Items for negative perception of non-guarantee (guarantee unavailable conditions)**

1. The fact that this agency does not offer any guarantees tells me that it has limited service capabilities.
2. The fact that this agency does not offer any guarantees communicates that it is not confident in its service quality.
3. The fact that this agency does not offer any guarantees implies that it has insufficient ability to fulfill its promises.
4. The fact that this agency does not offer any guarantees communicates that it does not commit to high service quality.

**Items for positive perception of non-guarantee (guarantee unavailable conditions)**

1. The fact that this agency does not offer any guarantees tells me that it does not need to use this “trick” to acquire new customers.
2. The fact that this agency does not offer any guarantees communicates that it does not want to pull a publicity stunt using such guarantees.
3. The fact that this agency does not offer any guarantees implies that it does not need to beg for business using such guarantees.
4. The fact that this agency does not offer any guarantees implies that its service quality is already perfect.

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<th>Low-reputation condition:</th>
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<tr>
<td>Price: $4</td>
<td>Price: $3</td>
</tr>
<tr>
<td>Service: Valid for 3 h</td>
<td>Service: Valid for 3 h</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Notes:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- Service guarantees (SG);</td>
</tr>
<tr>
<td>- A SG logo says “Full-satisfaction services guaranteed, or customers will get all their money back”;</td>
</tr>
<tr>
<td>- In both conditions, our prediction is that participants will choose Club A if they value a service guarantee.</td>
</tr>
</tbody>
</table>