

Does Communicating the Customer's Resource Integrating Role Improve or Diminish Value Proposition Effectiveness?

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Abstract

Purpose - This research examines whether explicitly communicating the customer's resource integrating role in value propositions improves or diminishes value proposition effectiveness.

Design/methodology/approach - Based on existing research on value propositions, three effectiveness criteria are used: role clarity, expected customer value and purchase intention.

Two experiments manipulating the presence of the customer's resource integrating role in value propositions test the conceptual model in both an indirect interaction (Study 1, toothpaste, n = 207) and a direct interaction context (Study 2, fitness program, n = 228). Additionally, Study 2 includes the moderating role of resource availability.

Findings - Explicitly communicating the customer's resource integrating role in value propositions increases customers' role clarity, which in turn influences customer's attitude toward the service and purchase intention through a service-related (i.e., expected benefits and expected efforts) and an ad-related (i.e., ad credibility and attitude toward the ad) route. However, these results only hold for customers high in resource availability.

Originality/value - This research provides initial empirical support for the often-stated claim that value propositions should include the (potential) value of the offering as well as the (resource integrating) role of the customer. Taking a broader perspective, this research provides initial empirical support for recent calls to develop marketing communication practices that facilitate value-in-use. This paper's findings show that adopting a service logic in marketing communications seems to improve value propositions' effectiveness.

Keywords - Value proposition, customer resource integration, value creation, communicating value, marketing communications

Paper type - Research paper

Recent advances in marketing and service research such as service-dominant logic (Vargo and Lusch, 2004, 2016) and service logic (Grönroos and Gummerus, 2014; Grönroos and

Voima, 2013) emphasize the customer's role in value creation. In particular, customers create their own value through resource integration. This implies that customers integrate the resources provided by an organization (i.e., goods, services, and/or information) with other resources and skills they can access to transform the potential value of these resources into real value or value-in-use (Grönroos and Voima, 2013; Hibbert *et al.*, 2012).

The notion of customers as the creators of their own value requires firms to facilitate or support the customers' value creation (Hibbert *et al.*, 2012). One of the firm's key supportive roles is to offer and communicate effective value propositions to current and potential customers (Grönroos and Voima, 2013; Skålén *et al.*, 2015). Although a value proposition is often treated as a firm's promise about the (potential) value of an offering (Anderson *et al.*, 2006; Grönroos and Voima, 2013), recent research (Bettencourt *et al.*, 2014; Edvardsson *et al.*, 2012; Frow and Payne, 2011; Skålén *et al.*, 2015) suggests that value propositions should also acknowledge the customer's role in the value creation process. More specifically, value propositions should not only communicate the potential value of the offering, but also the customer's resource integrating role (CRIR) which is required to transform this potential value into real value. However, despite these suggestions (Bettencourt *et al.*, 2014; Edvardsson *et al.*, 2012; Frow and Payne, 2011; Skålén *et al.*, 2015), no empirical research has examined the effectiveness of explicitly communicating the CRIR in value propositions.

This lack of research is surprising, as value propositions play a pivotal role in customer expectation management (Payne and Frow, 2011). Customer expectations are pre-usage beliefs about a product or service that serve as benchmarks for evaluating the performance – and thus also the value – of the product or service (Ojasalo, 2001; Zeithaml *et al.*, 1993). Given the CRIR's importance for successful value creation, communicating the CRIR in the value proposition can be an effective way to proactively manage customer expectations. By explicating what customers can expect from the offering (i.e., expected benefits), but also

what is expected of them (i.e., the CRIR), customers obtain more realistic expectations of the product or service.

To date, it remains unclear whether communicating the CRIR in the value proposition leads to positive reactions, or whether such communication backfires by creating the expectation of ‘too much effort’ to obtain the value-in-use. Moreover, value propositions including the CRIR may also reach customers lacking the necessary skills or resources for successful resource integration. An in-depth understanding of the effectiveness of including the CRIR in value propositions thus requires an analysis of value proposition effectiveness across customer segments with varying levels of resource availability.

This paper aims to address these issues by empirically investigating the effectiveness of explicitly communicating the CRIR in value propositions. This study describes two empirical studies and used three effectiveness criteria: (i) role clarity, (ii) expected customer value, and (iii) purchase intention. These criteria are based on recent research (Bettencourt *et al.*, 2014; Chandler and Lusch, 2015; Skåln *et al.*, 2015) that considers value propositions as (i) promises about potential value (which relates to expected customer value) that (ii) acknowledge the customers’ role in value creation (which relates to role clarity) and (iii) can be considered an invitation from the firm to the customer, which a customer can accept or decline (which relates to purchase intention). In addition, Study 2 examines the moderating role of resource availability, which refers to whether the receiver of the value proposition has the necessary resources to successfully transform potential value into real value or value-in-use.

Theoretical background

Value Creation and Resource Integration

For decades, marketing adhered to a goods-dominant logic, which focused on the exchange of manufacturing output and tangible resources that are embedded with value during production and distribution processes. Goods-dominant logic emphasized that the firm creates value and embeds this value into the product, while the customer destroys this value when using it. According to goods-dominant logic, the firm provides value to the customer who passively receives it (Skålén *et al.*, 2015; Vargo and Lusch, 2004).

In the last decade, new ideas about value creation have fundamentally transformed marketing. Since the introduction of service-dominant logic by Vargo and Lusch in 2004, a great variety of conceptual as well as empirical papers have increased our understanding of value. The work of Grönroos and colleagues (Grönroos and Gummerus, 2014; Grönroos and Ravald, 2011; Grönroos and Voima, 2013) on service logic further added to our knowledge on value, especially on the value creation process. One of the fundamental principles of service logic is the notion that customers act as resource integrators, meaning that customers use the resources provided by an organization (e.g., products, services, information) and integrate them with other resources (e.g., other products and services, but also time and money) and skills they possess to transform the potential value of these resources into real value or value-in-use (Grönroos and Gummerus, 2014; Grönroos and Ravald, 2011; Grönroos and Voima, 2013).

Put differently, customers are the creators of value. Organizations, on the other hand, are considered to be service providers where service can be defined as “the use of resources in a way that supports customers’ everyday practices – physical, mental, virtual, possessive – and thereby facilitate their value creation” (Grönroos and Gummerus, 2014, p. 208).

Organizations thus act as value facilitators by providing resources representing potential

value to customers such as goods, services, and/or information (Grönroos and Ravald, 2011; Grönroos and Voima, 2013). These resources are merely input to a customer's value creation process since it is not these resources per se, but the combination and integration of these resources that lies at the heart of value creation. As Bitner *et al.* (1997) show, a Weight Watchers program is only successful when members actively do something and invest time and effort when using the program. Value is thus only created when Weight Watchers' input is combined with the customers' input. Although the notion of active customer contributions is not new (e.g., Bitner *et al.*, 1997; Auh *et al.*, 2007), "what is new is the recognition that service providers are only providing *partial* inputs in the *customer's* value-creating processes, with input coming from other sources, including from the customer's own activities" (McColl-Kennedy *et al.*, 2012, p. 371, emphasis in original). Activities include "performing" or "doing" (McColl-Kennedy *et al.*, 2012; Sweeney *et al.*, 2015) and may range from simple activities such as attending a Weight Watchers meeting to more demanding activities such as preparing food.

In line with the aforementioned central tenet of service logic, resource integration is fundamental to our understanding of value creation since value is created through "an integration of resources involving activities and interactions that take place not only with the focal firm but also with other market-facing, public, and private sources" (Sweeney *et al.*, 2015, p. 318). Customer resource integration (CRIR) can thus be defined as the customer's activities and interactions that create value for the customer by using and combining resources from market-facing, public, and private sources (McColl-Kennedy *et al.*, 2012; Sweeney *et al.*, 2015).

The Value Proposition Concept

The aforementioned advances in marketing and service research also created a resurging interest in the value proposition concept. Skålén *et al.* (2015), Frow *et al.* (2014), Payne and Frow (2014), and Payne and Frow (2017) offer extensive discussions of the origins and evolution of the value proposition concept, which will only be summarized here.

As Payne and Frow (2014) and Frow *et al.* (2014) reveal, Bower and Garda (1985) were the first to introduce the value proposition concept. These authors considered value propositions as promises of satisfaction based on the idea of value delivery: firms promise to deliver products or services that have value because they can do something for the customer. Wiersema and Treacy (1995) later described the value proposition concept as a promise made by the company to deliver a unique mix of values, such as price, quality, performance, and convenience (Frow *et al.*, 2014; Payne and Frow, 2014). A few years later, Lanning and Michaels (1988) provided a more detailed description of the concept, which ultimately forms the basis of McKinsey's (2000, p. 53) definition of a value proposition as "a clear, simple statement of the benefits, both tangible and intangible, that the company will provide, along with the appropriate price it will charge each customer" (see also Skålén *et al.*, 2015).

Anderson *et al.* (2006) outlines the lack of consensus on how to define a value proposition and shows that companies typically develop a value proposition by focusing on (i) all benefits a customer receives from a market offering; (ii) all favorable points of difference a market offering has relative to the next best alternative, or (iii) on one or two points of difference that are most valuable to customers (Frow *et al.*, 2014; Skålén *et al.*, 2015). These approaches, however, are all based on a goods-dominant logic: the firm delivers or provides the inherent value of the value proposition to the customer, and that the customer passively receives this value (Skålén *et al.*, 2015).

Service logic, however, indicates that value is not created and delivered by the firm, but created by the customer by means of resource integration (Grönroos and Ravald, 2011; Grönroos and Voima, 2013). This implies that value cannot be delivered to the customer in accordance with the 'traditional' value proposition. Service logic originally conceptualizes a value proposition as “a promise that customers can extract some value from an offering” (Grönroos and Voima, 2013, p. 145) and argues that a value proposition “includes a promise making element, without integrating the promise keeping aspect” (Grönroos and Gummerus, 2014, p. 222).

Recently, however, several researchers argued that this conceptualization of value propositions is incomplete, as it refers to an assurance of future consequences without considering the customer's role in value creation. Bettencourt *et al.* (2014) and Skålén *et al.* (2015) suggest that a value proposition should not only make promises about *what* but also *how* value will be created. A value proposition should not only communicate the potential value (in terms of potential benefits and/or costs) of an offering but also how this value can be obtained (Edvardsson *et al.*, 2012). Additionally, researchers treat a value proposition as an invitation from the firm to the customer, who can decide whether to accept or decline this invitation (Bettencourt *et al.*, 2014; Chandler and Lusch, 2015).

Against this backdrop, this paper conceptualizes a value proposition as “(i) a promise about potential value that (ii) acknowledges the customers' role in value creation and (iii) can be considered an invitation from the firm to the customer, which a customer can accept or decline”. This study compares the effectiveness of a value proposition that is based on the notion that the *customer must do something* to obtain the promised benefits (i.e., the customer as an active creator of value as implied by service logic) with a value proposition that is based on the notion that *the firm promises to provide* benefits to the customer (i.e., the customer as a passive recipient of value as implied by goods-dominant logic).

The Effectiveness of Communicating the CRIR in Value Propositions

The marketing communication literature proposes two broad approaches to evaluate effectiveness (Eisend and Tarrahi, 2016; McAlister *et al.*, 2016). The first approach is based on a modeling paradigm and uses evaluative marketing metrics such as sales, market share, profit, or firm value (McAlister *et al.*, 2016). The second approach is based on a behavioral paradigm and focuses on customer responses such as attitudes, behaviors, cognitions, or processing (Eisend and Tarrahi, 2016). This paper adopts the behavioral paradigm, as it aims to investigate the impact of communicating the CRIR in the (advertised) value proposition on relevant customer responses. Reflecting the definition of a value proposition, role clarity, expected customer value, and purchase intention serve as key criteria for evaluating the value proposition's effectiveness.

Role clarity is the extent to which customers know that they must do something to create value from the offering. Solomon *et al.* (1985) refer to service encounters as role performances and organizations benefit from managing customer role expectations. Effective value creation activities can be hampered if customers do not understand that they should do something (Bowen, 1986; Grönroos and Voima, 2013). Given this study's focus on value creation and the customer's role as a resource integrator, role clarity is a key criterion for evaluating the effectiveness of CRIR-including value propositions as communicating the CRIR informs customers about their role in the value creation process. This paper focuses explicitly on communicating to customers that they have an active role to play if they want to obtain the promised benefits (brushing their teeth twice a day or exercising for one hour twice a week to get results), but does not focus on the specific activities associated with this role (for instance, the different steps they must go through when brushing their teeth or the specific exercises they should do in the fitness program).

Besides including the CRIR, a value proposition should also include promises about the potential value of the offering. From a service logic perspective, these promises are based on the notion of value-in-use and, hence, the outcomes of using the product or service. In line with this focus on outcomes or consequences of product/service use rather than on the attributes of the product/service, expected customer value is defined and operationalized based on the work of Woodruff and Gardial (1996). Value is the trade-off between the positive and negative consequences of using the product or service as perceived by the customer (Woodruff and Gardial, 1996). This distinction is necessary to understand the net effect of CRIR communication: Customers evaluating the CRIR in the value proposition might not only evaluate the expected benefits, but also the expected effort. Expected benefits are the positive consequences or outcomes that can be expected when successfully using the product or service. Expected effort involves negative consequences. It is the ‘price’ that customers must pay to obtain the benefits when using the product or service (Gibbs and Drolet, 2003) or the non-monetary sacrifice associated with the use of the product or service (Cronin *et al.*, 2000).

Purchase intention serves as the third value proposition effectiveness criterion. Several researchers (Bettencourt *et al.*, 2014; Chandler and Lusch, 2015) treat a value proposition as an invitation from one actor (in this case the firm) to another actor (in this case the customer), which the latter can accept or decline. Hence, firms need to develop a compelling value proposition (Bettencourt *et al.*, 2014; Frow *et al.*, 2014; Skålén *et al.*, 2015; Vargo and Lusch, 2004). Since it is the customer who decides whether to accept this value proposition, customers’ purchase intention captures the attractiveness of the value proposition.

In summary, the combination of role clarity, expected customer value, and purchase intention constitute a holistic and interrelated measure of value proposition effectiveness from a service logic perspective, and involve both the customer’s as well as the firm’s

perspective on effectiveness. The customer wants to create and obtain value (i.e., expected customer value) whereas the firm wants to sell its offering (i.e., purchase intention) but also wants satisfied customers (which results from customer value). However, successful value creation requires the customer not only to buy the product or service, but also to perform his/her role as a resource integrator. As a result, role clarity is an important criterion as well.

Conceptual Framework

To uncover the processes underlying the effectiveness of communicating the CRIR, this paper presents a conceptual framework that includes the three effectiveness criteria, their relationships as well as variables mediating these relationships (see Figure 1). To organize the effectiveness criteria of explicitly communicating the CRIR in the value proposition, this study departs from the Fishbeinian belief-attitude-intention framework (Fishbein and Ajzen, 1975). Fishbein and Ajzen (1975, p. 508) indicate that the evaluation of the outcomes of a communication involves “a detailed analysis of the processes intervening between the manipulation and change in dependent variable” and that this “requires the distinction between beliefs, attitudes, intentions, and behaviors.” These steps also reflect the hierarchy of effects model that describes the cognitive, affective, and conative steps receivers of an advertised message follow (e.g., Barry, 2002). The hierarchy of effects model specifies the sequence in which these steps take place (Eisend and Tirrahi, 2016).

Recent research by Eisend and Tirrahi (2016) indicates that this sequence depends on the major input variable under study (in our case the CRIR). These authors discern four possible advertising inputs: the source (who is communicating?), the message (what is communicated?), the strategy (how is the message communicated?) and the receiver (to whom is the message communicated?). The inclusion of the CRIR in the advertised value

proposition represents the message, which triggers the following hierarchy of effects: beliefs → attitudes → intentions (Eisend and Tirrahi, 2016).

Additionally, prior research on the impact of advertising on customer responses indicates that there are two possible routes to persuasion: an ad-related route including ad cognitions and attitudes; and a brand-related route including brand cognitions and attitudes (MacKenzie and Lutz, 1989). In a similar vein, the conceptual model includes two distinct but interrelated routes; i.e., a service-related and an ad-related route. In line with service logic, the term ‘service’ is used to denote both products and services.

[INSERT FIGURE 1 ABOUT HERE]

The impact of explicitly communicating the CRIR in the value proposition on role clarity

The objective of including the CRIR in the value proposition is to communicate to customers that they have an active role to play if they want to create and obtain value. It is important to set realistic service expectations, including expectations about the customer’s own role (Bitner *et al.*, 1997). Communicating such role expectations is in line with organizational socialization research (Verleye *et al.*, 2014). Explicitly communicating customers’ role expectations typically “leads to greater clarity in terms of both the tasks required of customers and involvement and participation norms” (Auh *et al.*, 2007, p. 362). Based on previous research indicating that organizational socialization enhances role clarity (Dellande *et al.*, 2004; Verleye *et al.*, 2014), the following hypothesis is formulated:

Hypothesis 1: Including the CRIR in the value proposition has a positive impact on role clarity.

The service-related route to effectiveness

The service-related route is based on the notion that, prior to purchase, customers form evaluative thoughts or beliefs about the actual value-in-use (Woodruff, 1997). As mentioned previously, these beliefs about expected value involve a trade-off between what the customer expects to get (i.e., expected benefits) and what he or she expects to give up to acquire and/or use the product or service (i.e., expected costs). The expected benefits are the positive outcomes or results that can be expected when successfully using the product or service. Regarding expected costs, this study includes expected effort, since it focuses on the cost of using the product or service and not on the cost of acquiring it (i.e., the price). Hence, expected effort can be defined as the price or the non-monetary sacrifice that customers must pay to obtain the benefits when using the product or service (Cronin *et al.*, 2000; Gibbs and Drolet, 2003).

The increase in role clarity could have a mixed relationship with expected customer value. On the one hand, it could be positively related to the expected service performance and thus expected benefits. An increase in the customers' knowledge of their role enhances their ability to perform well (Evans *et al.*, 2008). On the other hand, increasing role clarity could also increase the expected workload (Evans *et al.*, 2008). If customers know that they must do something to get the promised results, this increases their expectations of the time and energy that should be invested in this process (i.e., expected effort). This leads to the following hypotheses:

Hypothesis 2: Role clarity is positively related to expected benefits.

Hypothesis 3: Role clarity is positively related to expected effort.

Customers favor offerings that require less effort and offerings from which greater benefits can be generated (Cronin *et al.*, 2000; Gibbs and Drolet, 2003). As a result, expected

benefits and expected effort are hypothesized to influence the customer's attitude toward the service, which can be defined as a person's general feelings of favorableness toward the service (Fishbein and Ajzen, 1975). More specifically, expected effort negatively affects customers' attitude toward the service, because expected effort involves mental or physical costs, and thus poses the negative or cost side of the value trade-off (Woodruff and Gardial, 1996). Customers generally view effort as a cost factor that should be minimized when obtaining and using a product or service (Haumann *et al.*, 2015). Expected benefits, on the other hand, are the positive side of the value trade-off (Woodruff and Gardial, 1996) and are thus positively related to customer preferences (Haumann *et al.*, 2015). This leads to the following hypotheses:

Hypothesis 4: Expected benefits is positively related to attitude toward the service.

Hypothesis 5: Expected effort is negatively related to attitude toward the service.

Although the dominant assumption is that effort evokes negative evaluations and that people prefer easy rather than effortful choices, previous studies have indicated that effort can be positively related to the expected performance and benefits of the service. For instance, Labroo and Kim (2009) propose an instrumentality heuristic, which refers to consumers' naive belief that effort signals instrumentality. People trying to reach a goal (e.g., losing weight) usually invest effort in the means they perceive as useful for reaching this goal (e.g., a fitness program). Previous service research also indicates that customers' expectations of service outcomes are enhanced when customers believe they are doing their part in the service delivery process (Zeithaml *et al.*, 1993). Furthermore, the no pain-no gain theory (Kramer *et al.*, 2012) states that suffering from the pain of negative elements, like exerting effort, enhances the perceived gain of positive elements, such as the promised benefits of the offering. This leads to the following hypothesis:

Hypothesis 6: Expected effort is positively related to expected benefits.

The ad-related route to effectiveness

The model also includes an ad-related route to effectiveness, as perceptions and thoughts about the ad can also affect advertising attractiveness and thus the effectiveness of the value proposition (Brown and Stayman, 1992).

Communicating the CRIR can be perceived as ‘negative’ information by customers, since it explicitly points to their responsibility and effort. As a result, communicating the (positive) benefits as well as the CRIR in the advertised message reflects a two-sided message (i.e., a message including both positive and negative information). These two-sided messages typically affect ad credibility (e.g., Crowley and Hoyer, 1994; Eisend, 2006), which refers to “the extent to which the consumer perceives claims made about the brand in the ad to be truthful and believable” (MacKenzie and Lutz, 1989, p. 51). Based on attribution theory, customers can attribute advertised claims to either the desire of the advertiser to sell, or to the actual features of the brand being advertised (Eisend, 2006). Following earlier work on two-sided messages and ad credibility (e.g., Crowley and Hoyer, 1994), customers who become more knowledgeable about their role in the value creation process consider more the advertised message as ‘telling the truth’, which enhances the perception of ad credibility (MacKenzie and Lutz, 1989). This leads to the following hypothesis:

Hypothesis 7: Role clarity is positively related to ad credibility.

Higher levels of ad credibility are typically associated with a more favorable attitude toward the ad, which is conceptualized as “a predisposition to respond in a favorable or unfavorable manner to a particular advertising stimulus during a particular exposure occasion” (MacKenzie and Lutz, 1989, p. 49). Previous studies on ad credibility indicate that

the believability of the advertised message significantly enhances attitude toward the ad (MacKenzie and Lutz, 1989). When customers have the feeling that the advertised message is telling the truth, they have more favorable feelings toward the ad. This leads to the following hypothesis:

Hypothesis 8: Ad credibility is positively related to attitude toward the ad.

In line with the general advertising literature (e.g., Brown and Stayman, 1992), this study includes a positive relationship between attitude toward the ad and attitude toward the service. If a customer has a favorable impression about the ad, this will result in a favorable attitude toward the advertised service. This leads to the following hypothesis:

Hypothesis 9: Attitude toward the ad is positively related to on attitude toward the service.

Acceptance of the value proposition: Purchase intention

The final stage in the conceptual framework involves the customer's acceptance of the value proposition in terms of purchase intention. In line with previous studies (e.g., Brown and Stayman, 1992; MacKenzie and Lutz, 1989), attitude toward the service is expected to positively affect purchase intention: The more favorable the customer's attitude toward the service, the higher his/her purchase intention. This leads to the following hypothesis:

Hypothesis 10: Attitude toward the service is positively related to purchase intention.

Method

Settings

Service logic proposes that all firms are service providers and that service supports customers' everyday practices and facilitates their value creation (Grönroos and Gummerus,

2014). The way parties interact, however, allows for a distinction between products and services. Products refer to output of the firm's production process and create a self-service process for the customer that is closed for the firm. Services are interactive processes that create an open system where an organization can interact directly with customers (Grönroos, 2011; Grönroos and Voima, 2013). Consequently, products involve an indirect interaction between the firm and the customer, whereas services involve a direct interaction between both parties. Considering this distinction, and to provide a more robust examination of the conceptual model, this research tests the hypotheses in both settings. Study 1 tests the effectiveness of specifying the CRIR in a value proposition for toothpaste (i.e., indirect interaction) while Study 2 tests the hypotheses in a value proposition for a fitness program (i.e., direct interaction).

Questionnaire

Both studies used the same questionnaire. Role clarity was measured using a four-item scale adapted from Dellande *et al.* (2004). Ad credibility was measured using a four-item semantic differential scale (MacKenzie and Lutz, 1989). Attitude toward the ad and attitude toward the service were measured by using four-item semantic differential scales (MacKenzie and Lutz, 1989). Purchase intention was measured using a two-item semantic differential scale (Dabholkar, 1994). Expected benefits and expected effort were operationalized based on the work of Woodruff and Gardial (1996). This choice is consistent with Woodruff and Gardial's (1996, p. 7) statement that "customer value is not inherent in products or services themselves; rather it is experienced by customers because of using the supplier's products and services for their own purposes." This is also in line with Leroy-Werelds *et al.*'s (2014) recommendation to use multidimensional, consequence-based methods (such as the methods of Woodruff and Gardial, or the typology of Holbrook) for measuring value when predictive ability is

important. The reason for favoring Woodruff and Gardial (1996) over Holbrook (1999) is based primarily on the former's explicit separation of benefits and costs, which allows us to evaluate the net effect of including the CRIR in the value proposition. All items were measured on nine-point scales. Table 1 lists all items.

[INSERT TABLE 1 ABOUT HERE]

Study 1

Sample and Procedure

Two-hundred and nine adult respondents participated in a two-group between-subjects experiment. Respondents were randomly assigned to a toothpaste advertisement with the CRIR or without the CRIR. Data were collected online via a Belgian market research agency. Two participants were removed for not using toothpaste. This resulted in a final sample size of 207 respondents (58.45% women; $M_{\text{age}} = 37.27$, $SD_{\text{age}} = 12.53$).

Both ads contained the following benefits: whiter teeth, healthier gums, fights dental plaque, fights dental cavities, fights teeth sensitivity, and fresher breath. These benefits were based on an investigation of different value propositions used in existing toothpaste advertisements. The ad without the CRIR is based on goods-dominant logic which implies that the firm creates value and embeds this value into the product, making the customer a passive recipient of value. The ad with the CRIR was in line with service logic and mentioned that the customer can expect to obtain benefits *if* he/she does something (i.e., brushing his/her teeth twice a day). The customer is thus an active creator of his/her own value.

Analytical Approach

Data were analyzed using Partial Least Squares-Structural Equation Modeling (PLS-SEM) as implemented in the SmartPLS 3.2.1 software. PLS-SEM has less stringent sample size and distributional requirements than covariance-based SEM (Hair *et al.*, 2011), and the statistical power of PLS-SEM is always larger than or equal to that of covariance-based SEM (Reinartz *et al.*, 2009). Furthermore, PLS-SEM is recommended when testing complex conceptual models and when the purpose of the research is rather exploratory (Hair *et al.*, 2011).

Bootstrapping procedures (5,000 resamples) and two-sided p-values were used to evaluate the statistical significance of the parameters estimates (Davison and Hinkley, 1997). The model was specified following Streukens *et al.*'s (2010) recommendations to incorporate an experimental design in a PLS-SEM context. This implies that the experimental manipulation (CRIR versus no CRIR in the ad) was modeled as a latent variable with a dummy variable as its formative indicator.

Results

An evaluation of each construct's psychometric properties shows that all constructs adhere to Hair *et al.*'s (2011) recommendations regarding unidimensionality, internal consistency reliability, item validity, and convergent validity (see Table 1). Additionally, the results support discriminant validity of the constructs, based on the Henseler *et al.*'s (2015) heterotrait-monotrait (HTMT) criterion. The results of a Harman's one factor test show that common method variance is not a threat to the interpretation of the results (Podsakoff *et al.*, 2003). Table 2 lists the means, standard deviations, and correlations among the variables included in this study.

[INSERT TABLE 2 ABOUT HERE]

The coefficient of determination (R^2 value), which is a measure of the model's predictive ability (Hair *et al.*, 2011), is used to assess the structural model. All R^2 values (see Table 1) are statistically significant (Ohtani, 2000). Next, the path coefficients were examined to evaluate the hypothesized relationships (see Table 3). The results show that including the CRIR in the ad positively affects role clarity ($\beta = .29$; $p < .001$), supporting Hypothesis 1.

Following the service-related route, role clarity is positively associated with both expected benefits ($\beta = .31$; $p < .001$) and expected effort ($\beta = .34$; $p < .001$), supporting Hypotheses 2 and 3. Expected benefits, in turn, are positively associated with attitude toward the service ($\beta = .37$; $p < .001$), which supports Hypothesis 4. Expected effort is not significantly associated with attitude toward the service ($\beta = .00$; $p = .96$; Hypothesis 5 not supported), but is positively related to expected benefits ($\beta = .42$; $p < .001$), supporting Hypothesis 6.

Regarding the ad-related route, role clarity is positively associated with ad credibility ($\beta = .24$; $p = .01$; Hypothesis 7 supported), which, in turn, increases the attitude toward the ad ($\beta = .66$; $p < .001$; Hypothesis 8 supported). Finally, attitude toward the ad is positively associated with attitude toward the service ($\beta = .42$; $p < .001$), which, in turn, is positively related to purchase intention ($\beta = .44$; $p < .001$), supporting both Hypotheses 9 and 10.

[INSERT TABLE 3 ABOUT HERE]

Discussion Study 1

Study 1 provides initial insights into the effectiveness of explicitly communicating the CRIR in value propositions. Explicitly stating the CRIR increases customers' role clarity, which in turn enhances attitudes and intentions through an enhancement of expected benefits. It is

interesting to note, however, that the impact of role clarity on expected effort does not result in a ‘penalty’ regarding the attitude toward the service. Expected effort reinforces the attitude toward the service via its positive influence on expected benefits. These findings show that communicating the CRIR in value propositions leads to positive outcomes via the service-related route.

The findings also support the ad-related route to value proposition effectiveness. Customers perceive a value proposition including the CRIR as more credible, resulting in a better attitude toward the ad. This, in turn, makes the advertisement more effective in terms of attitude toward the service and, ultimately, purchase intention. Overall, these findings provide initial support for the suggestions made by various researchers to include the CRIR in value propositions (Bettencourt *et al.*, 2014; Edvardsson *et al.*, 2012; Skålén *et al.*, 2015).

Study 2

Given the focus on customers as resource integrators, it is important to consider customers’ available resources when considering appropriate segments. As customer resource integration refers to the customer’s activities and interactions that create value for the customer by using and combining resources from market-facing, public, and private sources (McColl-Kennedy *et al.*, 2012; Sweeney *et al.*, 2015), customers should have access to the necessary resources before being able to integrate them in a value creation process. After all, customers also need to bring a value foundation to the table: their skills and their access to the required additional resources. Customers without the required skills or without access to the necessary resources will be unable to attain value-in-use (Grönroos, 2011). Put simple, customers not possessing a toothbrush, brushing skills or time to brush cannot turn the toothpaste’s potential value into real value. Resource availability, which involves whether the customer has the necessary

resources (e.g., time, money, physical ability) to become a successful resource integrator, then becomes an important boundary condition in the customer's value creation process.

Against this backdrop, Study 2 examines the moderating role of resource availability on value proposition effectiveness. This perspective reflects recent advertising research (Eisend and Tirrahi, 2016) which indicates that advertising effectiveness is contingent upon the receiver. As mentioned before, Eisend and Tirrahi (2016) discern four different advertising inputs: the source (who is communicating? e.g., source credibility, source gender), the message (what is communicated? e.g., content, humor), the strategy (how is the message communicated? e.g., repetition, duration) and the receiver (to whom is the message communicated? e.g., consumer motives, values). Firms can change the source, message and strategy to influence customers, but the receiver is less susceptible to change. However, "receiver characteristics can provide useful information for advertisers' targeting and segmentation strategies" (Eisend and Tarrahi 2016, p. 2).

Value propositions including the CRIR might not affect customers who do not have access to the necessary resources. Prevailing theories on information processing, such as the elaboration likelihood model (Petty *et al.*, 1983), the impact of involvement on advertising effectiveness (Zaichkowsky, 1986), and the notion of selective attention (Ratneshwar *et al.*, 1997) all predict that personal irrelevance refrains customers from engaging in a cognitive elaboration of a message. For instance, Petty *et al.* (2003, p. 359) indicated that "one of the most important variables influencing a person's motivation to think is the perceived personal relevance or importance of the communication." Customers who do not have access to the needed resources might not elaborate on the firm's value proposition. It can thus be expected that communicating the CRIR in the value proposition only increases role clarity for customers having a high level of resource availability, but not for the ones having a low level of resource availability. This leads to the following hypothesis:

Hypothesis 11: Including the CRIR in the value proposition positively affects role clarity for customers with high resource availability but not for customers with low resource availability.

Sample and Procedure

Two-hundred twenty-eight adult respondents (48.25% women; $M_{\text{age}} = 38.75$, $SD_{\text{age}} = 6.05$) participated in a two-group between-subjects experiment. Participants were randomly assigned to an advertisement with the CRIR or without the CRIR. Data were collected online via a Belgian research agency. Respondents were asked to evaluate an advertisement for a new and unknown fitness program. This setting allows us to discriminate between customers high and low in resource availability. Previous research indicates that a lack of time and/or money “act as barriers to regular participation in moderate or higher intensity physical activities” (Spinney and Millward, 2010, p. 341). Hence, respondents having the time and money as well as physical ability to engage in a fitness program represent the high resource availability group. People not having time, money, and/or the physical ability to invest in a fitness program have a low level of resource availability to become a (successful) resource integrator represent the low resource availability group.

Both advertisements contained the following benefits: improved conditioning, lower percentage of body fat, more toned figure, increase in physical strength, and visible reduction in waistline. These arguments were based on an examination of actual advertisements for fitness programs. Like Study 1, the ad without the CRIR is based on goods-dominant logic which implies that the firm creates value and the customer is a passive recipient of this value. The ad with the CRIR was in line with service logic and mentioned that the customer can expect to obtain benefits *if* he/she exercises one hour, twice a week. The customer is thus an active creator of his/her own value.

After reading the advertisement, respondents were asked to fill out the same questionnaire as used in Study 1 (see Table 1). In addition, participants were asked to indicate whether they have available time and money for a fitness program and whether they are physically able to participate in such a program. These variables were used to categorize participants as ‘high resource availability’ (i.e., all resources are available; indicated by HRA) or ‘low resource availability’ (i.e., at least one of the resources is not available; indicated by LRA). This resulted in 141 customers with HRA (48.94% women; $M_{\text{age}} = 38.42$, $SD_{\text{age}} = 6.25$) and 87 customers with LRA (47.13% women; $M_{\text{age}} = 39.28$, $SD_{\text{age}} = 5.70$).

Results

The measurement model and potential for common method bias were evaluated in a similar way as in Study 1. All scales possess favorable psychometric properties (Table 1), and common method bias does not pose a risk to the interpretation of the results. Table 2 lists the means, standard deviations, and correlations for Study 2.

All R^2 values of the structural model are statistically significant (Ohtani, 2000). Table 3 lists the path coefficients for the total sample, the LRA group, as well as the HRA group. Including the CRIR in the value proposition increases role clarity for the HRA group ($\beta = .21$; $p = .06$), but not for the LRA group ($\beta = .06$; $p = .49$). These findings support Hypothesis 11. Since the impact of including the CRIR in value propositions on role clarity is only significant for the HRA group, this paper discusses only the findings for this group (the results for the LRA group are reported in Table 3). Concerning the service-related route, role clarity is positively related to expected benefits ($\beta = .34$; $p = .01$; Hypothesis 2 supported), but not expected effort ($\beta = .15$; $p = .22$; Hypothesis 3 not supported). Expected benefits are positively related to the attitude toward the service ($\beta = .42$; $p < .001$; Hypothesis 4 supported), but the relationship between expected effort and attitude toward the service is not

significant ($\beta = -.10$; $p = .17$; Hypothesis 5 not supported). Expected effort is positively related to expected benefits ($\beta = .58$; $p < .001$; Hypothesis 6 supported). Concerning the ad-related route, role clarity is positively associated with ad credibility ($\beta = .26$; $p = .03$; Hypothesis 7 supported) which, in turn, is positively related to attitude toward the ad ($\beta = .74$; $p < .001$; Hypothesis 8 supported). This results in a better attitude toward the service ($\beta = .61$; $p < .001$; Hypothesis 9 supported), which, in turn, is positively related to purchase intention ($\beta = .46$; $p < .001$; Hypothesis 10 supported).

Discussion Study 2

Study 2 replicates and extends the findings of Study 1 by examining the effectiveness of including the CRIR in value propositions in a setting with direct interaction (vis-à-vis an indirect interaction setting in Study 1), and identifying customers' resource availability as a moderator. Explicitly communicating the CRIR in the value proposition is effective for the high resource availability group, but not for the low resource availability group. For the former group, the results again show that including the CRIR in the value proposition enhances role clarity, expected value and purchase intention through both the service-related route and the ad-related route.

General Discussion

This research contributes to the marketing and service literature by empirically investigating the effectiveness of explicitly communicating the customer's resource integrating role (CRIR) in value propositions. The combined results of two empirical studies in an indirect interaction (Study 1) as well as a direct interaction (Study 2) context contribute to a coherent picture, in which communicating the CRIR in the value proposition enhances value proposition effectiveness. This paper contributes to the literature in several ways.

First, this paper expands on prior suggestions to communicate in value propositions not only the potential value of an offering but also how this value can be obtained (i.e., through resource integration; Bettencourt *et al.*, 2014; Edvardsson *et al.*, 2012; Skålén *et al.*, 2015). The present study empirically shows how customers evaluate value propositions that explicitly communicate the customer's role in the value creation process. Furthermore, by including both positive and negative effects, this research could test the net effect of CRIR-inclusion in the value proposition. Interestingly, making customers aware of their own role in the value creation process does not necessarily increase their expected effort, and if it increases their expected effort, this actually leads to an increase in expected benefits which ultimately enhances attitude and intention. These findings corroborate with the no pain-no gain theory (Kramer *et al.*, 2012) and the instrumentality heuristic of Labroo and Kim (2009), as well as Cronin *et al.*'s (2000) work which indicates that customers seem to place greater importance on the benefits of the service than they do on the costs associated with the service.

Second, this research contributes to an emerging stream of research that seeks to understand how firms can facilitate and communicate value (Chandler and Lusch, 2015; Frow *et al.*, 2014; Skålén *et al.*, 2015), and responds to recent research agendas on these issues (Ostrom *et al.*, 2015; Marketing Science Institute, 2015). Taking a broader perspective, this paper connects with recent efforts to show how service research can benefit the more 'traditional' marketing field. Firms typically consider customers as passive recipients of their practices (Payne, *et al.*, 2008). This approach is also reflected in firm's marketing communication practices, which mainly stress the value that the firm offers to the customer. These perspectives have been criticized recently, for not considering customers' needs for knowledge and understanding of a product or service that ultimately renders value-in-use (Finne and Gronroos, 2017). These authors therefore invite marketers to rethink their

communication practices and develop customer-integrated marketing communications that focus on facilitating value-in-use. The research reported here provides initial empirical evidence that adopting such an approach might be worthwhile: Value propositions including the CRIR appear more effective than value propositions that do not specify the CRIR.

Third, the changing perspective on marketing communication necessitates the need for different effectiveness criteria. This study proposes effectiveness criteria based on the fundamental aspects of a value proposition: (i) a promise about potential value (which relates to expected customer value) that (ii) acknowledges the customers' role in value creation (which relates to role clarity) and (iii) can be considered an invitation from the firm to the customer, which a customer can accept or decline (which relates to purchase intention). By integrating service management logics (i.e., service-dominant logic and service logic) into marketing communication research, the present study responds to Aitken *et al.*'s (2008, p. 392) call for more research that "create[s] a richer understanding of advertising effectiveness from a consumer perspective. Marketing communication researchers can adopt these criteria to assess value proposition or marketing communication effectiveness in an evolving marketing communication landscape.

Fourth, by using various well-grounded effectiveness criteria, this paper contributes to our understanding of the processes underlying the effectiveness of communicating the CRIR in value propositions. The findings show that the service-related route (i.e., through expected value) explains the effectiveness of including the CRIR in value propositions in addition to a more traditional ad-related route. These findings again underscore the value of bringing a service perspective to marketing communication research.

Finally, communicating the CRIR in value propositions is effective only for customers who have access to all available resources for successful value creation, but is not effective for customers who lack access to at least one of these resources. While prior research

suggests that customers not having the necessary skills or not having access to the necessary resources will be unable to create value-in-use (Grönroos, 2011), the findings reveal that customers lacking one or more necessary skills or resources process the value proposition less extensively. These findings suggest that including the CRIR in the value proposition might attract customers with the right resources and skills into the value creation process. From an advertising perspective, the differences between customers high and low in resource availability highlight the importance of considering relevant receiver characteristics when communicating value propositions (e.g., Aitken *et al.*, 2008; Eisend and Tarrahi, 2016).

Managerial Implications

The findings of this research yield relevant insights for practitioners. First and foremost, this study demonstrates that companies can and should communicate the CRIR in their value propositions. Given the important role of the customer in transforming the potential value of an offering into real value and the possibility that unsuccessful resource integration might lead to unsatisfactory service experiences, dissatisfaction and eventually switching behavior, communicating the CRIR to customers is an important instrument for expectation management. Communicating the CRIR in value propositions can help set realistic expectations regarding not only the offering's value but also the role of the customer in the value creation process. To do so effectively, managers need to first understand the CRIR: which activities and interactions are necessary for creating value? Hence, managers should invest time, effort and even money (for marketing research) to carefully examine what the customer must do in order to successfully transform the potential value of the offering into real value or value-in-use. Furthermore, a better understanding of the various resources as well as the potential market-facing, public, and private sources used by customers to access these resources is acquired. It is thus essential that managers learn how to support the

customer's value creation process, and realize that without adequate insight into the customer's role and resources, they cannot create effective value propositions nor set the right expectations. Once these insights are gathered and clearly understood, managers should include the CRIR in their briefings to their communication department or advertising agency, to ensure the inclusion of the CRIR in the value proposition.

Managers, however, need to be aware of the role of resource availability in this process. They need to understand their customer base's overall level of resource availability, whether their customer base contains distinct segments in terms of resource availability, and whether these segments differ in terms of demographic, geographic, or lifestyle characteristics and communication preferences. Once established, managers can use customer resource availability as a diagnostic tool to identify whether benefits of a CRIR-inclusive communication strategy can be realized (cfr. Parasuraman, 2000). Managers can use these insights in three different ways. First, they can include customer resource availability as a variable when engaging in advertising segmentation and targeting exercises (Eisend and Tarrahi, 2016). Second, they can increase the level of resources for customers low in resource availability. Third, these insights can be used for new product or service development. For example, Fit20 offers a high intensity fitness program that requires only 20 minutes of training per week, but at a much higher price than a normal fitness program. They target people who do not have a lot of time to exercise, but have the money to invest in such a fitness program. Therefore, Fit20 fitness centers are located near or even within large business centers and office buildings to reach a money-rich but time-poor audience.

Limitations and Future Research Directions

Several limitations of this study suggest opportunities for further research. First, the current study focused explicitly on communicating to customers that they have an active role to play

if they want to obtain the promised benefits (brushing their teeth twice a day or exercise for one hour twice a week to get results), but does not focus on the specific activities associated with this role (for instance, the different steps they must go through when brushing their teeth or the specific exercises they should do in the fitness program). Future research could investigate the effectiveness of explicitly including a description of the specific resource integrating activities (for instance step-by-step guidelines on how to brush your teeth) in the value proposition.

Second, this study only tested one version of the CRIR (brush twice a day/exercise twice a week), but did not vary the levels of intensity. Varying the levels of intensity can provide additional insights regarding the effectiveness of CRIR-inclusion, since a higher level of intensity can potentially lead to a higher expected effort (Haumann *et al.*, 2015). Although the current research reveals that expected effort does not have a negative impact on attitude toward the service (and ultimately purchase intention), it could be that there are limitations regarding what can be expected from customers. Future research could, for example, compare the effectiveness of communicating that a customer must brush one time versus two times versus three times a day. By varying the levels of intensity, potential boundary conditions regarding the effectiveness of CRIR-inclusion can be discovered.

Third, future research could examine the resource integrating role of the customer in other more complex settings, such as medical (e.g., a hospital) or experiential services (e.g., a theatre). In medical services, for instance, a customer can undertake a range of resource integrating activities with varying levels of effort (Sweeney *et al.*, 2015). This implies that customers can play different roles in medical services (from a passive complier to a proactive decision maker), and it is thus less straightforward to define and communicate the CRIR in the value proposition.

Fourth, the findings show a positive effect of expected effort on expected benefits. This finding resembles the notion that price (another potential sacrifice) has a positive impact on quality perceptions (e.g., Rao and Monroe, 1989). Hence, it might be worthwhile to simultaneously investigate the relationships of multiple sacrifices (e.g., effort versus price) with expected value. Testing the impact of communicating a low/high price in combination with a high/low effort level, and investigating in more depth which of these combinations are most effective would contribute to a more complete understanding of how companies may shape their value propositions and thus may be a fertile direction for further research.

Fifth, this research uses an advertisement as a communication tool. While advertising is often used to convey value propositions, future research can investigate the effectiveness of CRIR-including value propositions communicated via, for instance, websites, packaging, or in-store communication.

Sixth, this study focuses on firm-created value propositions that “serve as a communication tool that firms use to position themselves vis-à-vis competitors, suggesting outcomes for the customer” (Skålén *et al.*, 2015, p. 154). Hence, a fruitful avenue for further research is to investigate co-created or reciprocal value propositions, which are based on two-way direct interactions between the firm and the customer (Ballantyne *et al.*, 2011). Such value propositions include informal agreements as well as negotiated contracts, both entailing an interactive firm-customer relationship.

Finally, even though previous research indicates that purchase intentions are valid predictors of sales (Armstrong *et al.*, 2000), future research might consider behavioral metrics rather than purchase intention.

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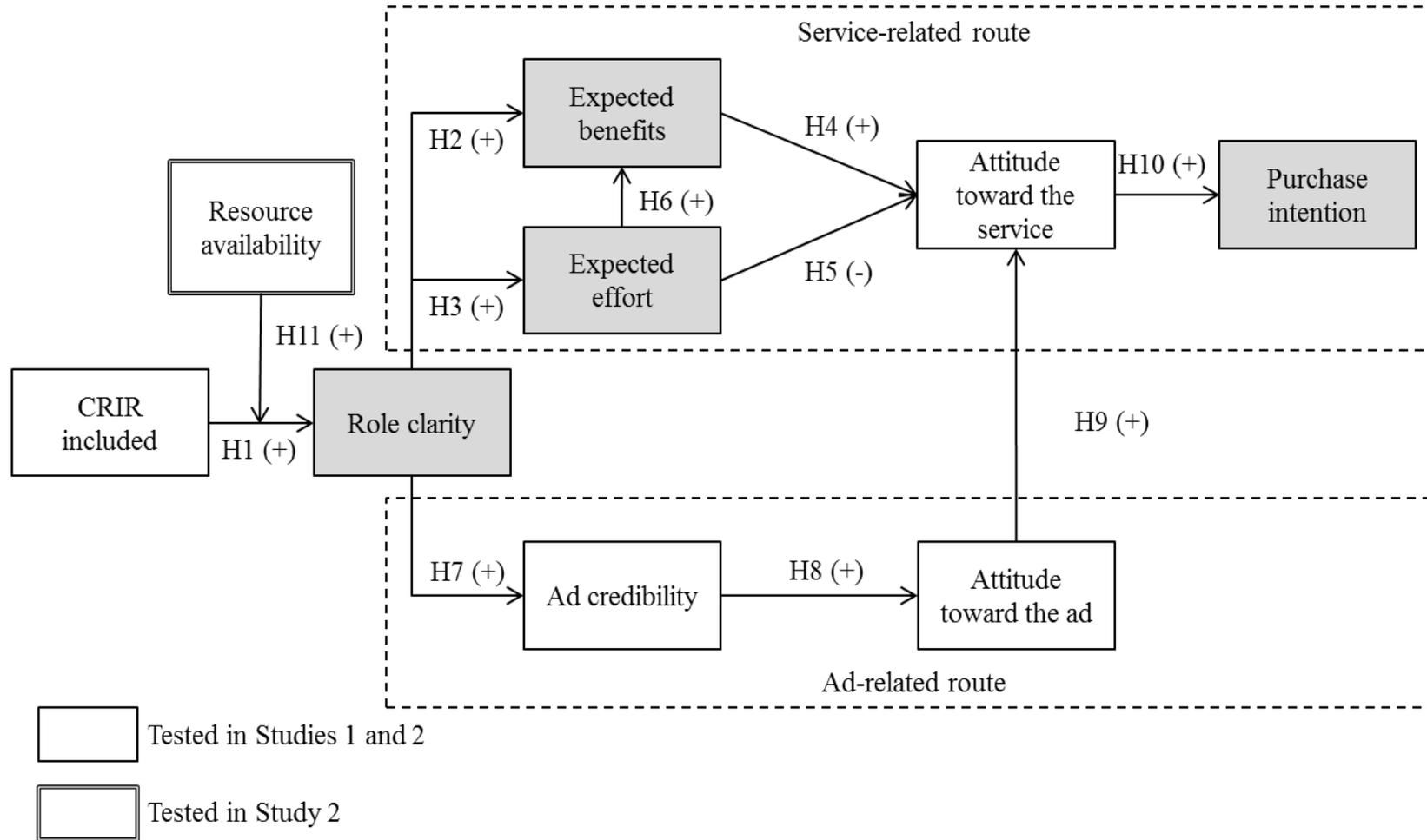
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Figure 1: Conceptual model



Note. CRIR = customer resource integrating role; The signs between brackets indicate the hypothesized sign of the relationship; The grey-shaded variables are our key effectiveness criteria.

Table 1: Constructs, items, outer loadings, psychometric properties and R² values

Variable	Study 1	Study 2		
		Total	HRA	LRA
Role clarity				
The ad makes it clear what I have to do to obtain the benefits of the product.	.91	.90	.89	.91
The ad makes it clear what is expected from me if I want to obtain the results mentioned in the ad.	.92	.93	.90	.94
The ad does not make it clear what I have to do to obtain the results mentioned in the ad. (R)	.82	.83	.89	.79
The ad does not make it clear what is expected from me If I want to obtain the benefits of the product. (R)	.82	.84	.90	.80
<i>Construct-level psychometric properties</i>				
<i>First eigenvalue (λ_1)</i>	3.07	3.13	3.22	3.07
<i>Second eigenvalue (λ_2)</i>	.67	.55	.47	.62
<i>Composite reliability</i>	.92	.93	.94	.92
<i>Average Variance Extracted (AVE)</i>	.75	.77	.80	.74
<i>R² value</i>	.08	.01	.04	.00
Ad credibility				
believable/unbelievable	.93	.95	.95	.94
untrustworthy/trustworthy	.95	.93	.93	.93
unrealistic/realistic	.93	.96	.95	.96
unconvincing/convincing	.88	.89	.91	.88
<i>Construct-level psychometric properties</i>				
<i>First eigenvalue (λ_1)</i>	3.41	3.46	3.50	3.44
<i>Second eigenvalue (λ_2)</i>	.30	.29	.26	.30
<i>Composite reliability</i>	.96	.96	.97	.96
<i>Average Variance Extracted (AVE)</i>	.85	.87	.88	.86
<i>R² value</i>	.06	.12	.07	.16
Attitude toward the ad				
What is your overall evaluation of the advertisement?				
bad/good	.79	.85	.87	.84
unpleasant/pleasant	.92	.88	.80	.91
unfavorable/favorable	.93	.93	.93	.93
negative/positive	.89	.93	.94	.93
<i>Construct-level psychometric properties</i>				
<i>First eigenvalue (λ_1)</i>	3.14	3.22	3.15	3.27
<i>Second eigenvalue (λ_2)</i>	.53	.39	.44	.40
<i>Composite reliability</i>	.94	.94	.94	.95
<i>Average Variance Extracted (AVE)</i>	.78	.80	.79	.82
<i>R² value</i>	.44	.58	.55	.61
Attitude toward the brand				
What is your overall evaluation of the advertised brand?				
bad/good	.91	.93	.98	.91
unpleasant/pleasant	.94	.96	.95	.97
unfavorable/favorable	.95	.97	.98	.97
negative/positive	.94	.97	.97	.98

<i>Construct-level psychometric properties</i>				
<i>First eigenvalue (λ_1)</i>	3.50	3.68	3.75	3.65
<i>Second eigenvalue (λ_2)</i>	.25	1.18	.14	.24
<i>Composite reliability</i>	.97	.98	.98	.98
<i>Average Variance Extracted (AVE)</i>	.87	.92	.94	.91
<i>R² value</i>	.45	.59	.63	.59
Purchase intention				
What is the probability that you will purchase the advertised toothpaste/fitness program in the future?				
Unlikely/likely	.94	.95	.96	.95
Impossible/Possible	.96	.96	.97	.96
<i>Construct-level psychometric properties</i>				
<i>First eigenvalue (λ_1)</i>	1.81	1.87	1.90	1.85
<i>Second eigenvalue (λ_2)</i>	.19	.13	.10	.15
<i>Composite reliability</i>	.95	.96	.96	.95
<i>Average Variance Extracted (AVE)</i>	.90	.92	.93	.91
<i>R² value</i>	.20	.23	.21	.24
Expected benefits (formative scale)				
Study 1: How likely is it that this toothpaste ... (scale: unlikely–likely)				
results in whiter teeth	.67			
results in healthier gums	.92			
results in protection against cavities	.79			
results in protection against teeth sensitivity is...	.86			
results in a fresher breath	.73			
fights dental plaque	.89			
<i>R² value</i>	.36			
Study 2: How likely is it that this fitness program ... (scale: unlikely–likely)				
results in a better condition?		.93	.88	.95
results in loss of fat?		.88	.85	.89
results in a tighter figure?		.89	.79	.93
results in an increase in physical strength?		.89	.92	.85
results in a visible reduction in waistline?		.82	.74	.86
<i>R² value</i>		.48	.50	.48
Expected effort				
Study 1: How likely is it that this toothpaste expects effort from me to get results? (scale: unlikely–likely)				
<i>R² value</i>	.11			
Study 2: How likely is it that this fitness program expects effort of me to get results? (scale: unlikely–likely)				
<i>R² value</i>		.03	.02	.03

Note. The numbers presented on the right for each item are outer loadings; HRA = high resource availability; LRA = low resource availability.

Table 2: Summary of means, standard deviations and latent variable correlations

Study 1	M	SD	1	2	3	4	5	6	7	8
1. CRIR										
2. Role clarity	6.02	1.52	.29							
3. Expected benefits	5.40	1.26	.01	.45						
4. Expected effort	6.12	1.72	.02	.34	.52					
5. Ad credibility	5.02	1.63	.02	.24	.48	.13				
6. A _{ad}	5.65	1.48	.06	.34	.46	.18	.66			
7. A _{service}	5.34	1.03	.05	.29	.56	.27	.58	.59		
8. Purchase intention	4.56	1.96	.12	.22	.44	.10	.48	.38	.44	
Study 2: Total sample	M	SD	1	2	3	4	5	6	7	8
1. CRIR										
2. Role clarity	5.40	1.77	.11							
3. Expected benefits	5.76	1.61	.01	.43						
4. Expected effort	7.13	1.86	-.09	.16	.61					
5. Ad credibility	5.28	1.62	.04	.34	.46	.10				
6. A _{ad}	5.80	1.48	.07	.27	.36	.14	.76			
7. A _{service}	5.41	1.42	.06	.44	.58	.22	.69	.66		
8. Purchase intention	4.52	2.06	.04	.25	.34	.02	.46	.36	.48	
Study 2: HRA	M	SD	1	2	3	4	5	6	7	8
1. CRIR										
2. Role clarity	5.29	1.87	.21							
3. Expected benefits	5.74	1.60	.03	.42						
4. Expected effort	7.08	1.88	-.03	.15	.62					
5. Ad credibility	5.29	1.72	.08	.26	.33	-.07				
6. A _{ad}	5.83	1.42	.17	.27	.26	.09	.74			
7. A _{service}	5.42	1.31	.11	.42	.52	.22	.68	.71		
8. Purchase intention	4.45	2.02	.09	.23	.26	-.03	.45	.43	.46	
Study 2: LRA	M	SD	1	2	3	4	5	6	7	8
1. CRIR										
2. Role clarity	5.46	1.71	.06							
3. Expected benefits	5.77	1.63	-.01	.47						
4. Expected effort	7.16	1.85	-.12	.18	.58					
5. Ad credibility	5.27	1.57	.00	.40	.56	.21				
6. A _{ad}	5.77	1.52	.00	.28	.44	.18	.78			
7. A _{service}	5.40	1.49	.04	.46	.63	.22	.71	.64		
8. Purchase intention	4.56	2.09	.00	.27	.42	.05	.46	.32	.49	

Note. CRIR = customer resource integrating role; A_{ad} = Attitude toward the ad; A_{service} = Attitude toward the service; HRA = high resource availability; LRA = low resource availability.

Table 3: Path coefficients for Study 1 (toothpaste) and Study 2 (fitness program)

Structural paths	Study 1: Toothpaste			Study 2: Fitness program					
	H	β (p-value)	Support H?	Total sample		HRA		LRA	
				β (p-value)	Support H?	β (p-value)	Support H?	β (p-value)	Support H?
CRIR – role clarity	H1	.29 (.00)	Yes	.11 (.09)	Yes	.21 (.06)	Yes	.06 (.49)	No
Role clarity – expected benefits	H2	.31 (.00)	Yes	.34 (.00)	Yes	.34 (.01)	Yes	.38 (.00)	Yes
Role clarity – expected effort	H3	.34 (.00)	Yes	.16 (.01)	Yes	.15 (.22)	No	.18 (.03)	Yes
Expected benefits – A_{service}	H4	.37 (.00)	Yes	.48 (.00)	Yes	.42 (.00)	Yes	.54 (.00)	Yes
Expected effort – A_{service}	H5	.00 (.96)	No	-.14 (.01)	Yes	-.10 (.17)	No	-.17 (.02)	Yes
Expected effort – expected benefits	H6	.42 (.00)	Yes	.55 (.00)	Yes	.58 (.00)	Yes	.51 (.00)	Yes
Role clarity – ad credibility	H7	.24 (.01)	Yes	.34 (.00)	Yes	.26 (.03)	Yes	.40 (.00)	Yes
Ad credibility – A_{ad}	H8	.66 (.00)	Yes	.76 (.00)	Yes	.74 (.00)	Yes	.78 (.00)	Yes
$A_{\text{ad}} - A_{\text{service}}$	H9	.42 (.00)	Yes	.51 (.00)	Yes	.61 (.00)	Yes	.44 (.00)	Yes
A_{service} – purchase intention	H10	.44 (.00)	Yes	.48 (.00)	Yes	.46 (.00)	Yes	.49 (.00)	Yes

Note. CRIR = customer resource integrating role; A_{Ad} = attitude toward the ad; A_{service} = attitude toward the service; HRA = high resource availability; LRA = low resource availability