Service alliances between unequals: the apple does not fall far from the better tree

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Abstract

Purpose – Brand alliances take various forms, yet academic research has not investigated how value spillovers differ between partners. The purpose of this paper is to address psychological mechanisms to uncover consumers' perceptions of a service alliance when a strong service brand partners with a weak one.

Design/methodology/approach – An experiment used a 2 (perceived value of parent brand X: high vs low) × 2 (perceived value of parent brand Y: high vs low) × 2 (alliance contribution: equal vs unequal) full-factorial between-subjects design.

Findings – Service alliance value is maximal when both parent brands have high perceived value but is lowest when both are of low perceived value. When their perceived value varies, the alliance value approximates the higher rather than the lower value parent. This effect increases with the relative size of a parent brand's contribution to the alliance service. Alliances also enhance perceptions of the value of each parent brand.

Practical implications – In an alliance between a strong and a weak service brand, the strong brand lifts the alliance, and consumers perceive high value. Companies should avoid service alliances with weaker brands that make major contributions.

Originality/value – This study investigates how value spillovers vary across different forms of service alliances. Moreover most alliance research focusses on products while services (such as education) are more involved in alliances than ever.

Keywords Branding, Consumer behaviour, Alliances, Education, Value, Customer services

Paper type Research paper

The challenges associated with brand extensions often lead companies to form brand alliances; in 2002 some 65 percent of service firms participated in some form of brand alliance (PWC, 2002) and in PWC's recent US CEO survey 42 percent of the CEO's interviewed indicate that they plan to enter an alliance (PWC, 2014). A brand alliance refers to short- or long-term, physical or symbolic associations of two or more brands, logos, or other distinctive proprietary assets (Rao and Ruekert, 1994), such as when, Alaskan Airlines serves Starbucks coffee, Sony equips its smartphones with Carl Zeiss lenses, and ABN AMRO bank sells Delta Lloyd insurance services. By forming such alliances, firms expect consumers' associations with or attitudes toward a partner

brand to affect attitudes toward the alliance offering, as well as attitudes toward their own brand (Simonin and Ruth, 1998), through a transfer or spillover effect. Prior research confirms that alliances can change consumers' existing (or create new) beliefs (Broniarczyk and Alba, 1994), attitudes (James *et al.*, 2006), and quality perceptions (Rao *et al.*, 1999; Tsantoulis and Palmer, 2008; Voss and Gammoh, 2004) about the involved brands and ultimately increase brand equity (Keller, 2003). Therefore, service firms form alliances with other firms to borrow on the favorable associations consumers might have with the partner's brand (Keller, 2003).

However, in their exploratory investigation of such spillover effects, Bourdeau *et al.* (2007) conclude that they result in either beneficial gains or grave consequences, depending on the quality of the partner's service quality. In the former case, a focal firm seeks maximum spillovers, in an effort to transfer as many favorable associations consumers might have with the partner brand to the alliance as possible. In the latter case, the firm still might seek an alliance but want to avoid large spillovers of associations. A strategic alternative in this case is to adopt an extension strategy (Samuelsen and Olsen, 2012), because even if the partner evokes less positive associations, the focal company might be unable to develop the service on its own. Therefore, the focal company needs to limit the extent to which consumers' attitudes toward the partner brand spillover to the alliance or to its own brand.

To do so, service firms need to consider the type of alliance, which likely determines attitude spillovers. As our brand alliance definition explicates, they can take various forms, and the chosen form should reflect a careful consideration of the potential spillover effects. Whereas alliance research details how consumers' quality perceptions (Rao *et al.*, 1999; Voss and Gammoh, 2004) and general product evaluations or attitudes (James *et al.*, 2006; Simonin and Ruth, 1998) spillover from parent brands to alliances and vice versa, to the best of our knowledge, no studies investigate if and how spillovers vary across alliance types. Moreover, there is only scarce evidence on alliance spillovers in service settings (e.g. airline and public transport brands; Bourdeau *et al.*, 2007). To address these research gaps and provide a strategic perspective on the risks of brand collaborations (Uggla and Asberg, 2010), we investigate how value spillovers between parent service brands and their alliance depend on the perceived value of the parent brands and their relative contributions to that alliance.

Value spillovers to alliances

The mechanism underlying attitude spillovers between parent brands and alliances might be explained by signaling theory and its assumption of asymmetrical information, such that firms have more information about their service quality than consumers do. In particular, services' general lack of tangible features and relative abundance of experience properties (Zeithaml *et al.*, 2013) make it hard for consumers to obtain direct information about the value of a new service alliance. Because consumers thus are uncertain about a service's attributes and unable to obtain direct information about them, they infer product attributes by resorting to heuristic cues, such as price, advertising (Zeithaml, 1988), or brands (Erdem and Swait, 1998; Erdem *et al.*, 2006), as well as their perceptions of the parent brands. They reason that parent brands would not participate in an alliance if the result were a low-value alliance, because in that case, the brand would risk its reputation and customer loyalty (Erdem and Swait, 1998). Therefore, consumers likely assume that the perceived value of the parent brand is a good signal for the value of its alliance.

Alliance research affirms this prediction; consumers' pre-existing attitudes toward parent brands affect their attitudes toward brand alliances (Simonin and Ruth, 1998), and their quality perceptions transfer from parent brands to alliances (Rao *et al.*, 1999). Recent studies identify spillovers in alliances between car and stereo brands (Bluemelhuber *et al.*, 2007), a camera and a personal digital assistant brand (Gammoh *et al.*, 2006), a clothing brand and its supplier brand (Votolato and Unnava, 2006), and a three-partner alliance (Voss and Gammoh, 2004). The majority of prior studies consider product-brand alliances. There is, however scarce evidence that these effects occur in service settings too (e.g. airline and public transport brands; Bourdeau *et al.*, 2007). Accordingly, we expect the perceived value of a parent service brand to spillover to the perceived value of an alliance in which it participates. We hypothesize:

H1. A parent brand's perceived value affects the perceived value of a service brand alliance.

Perceived differences in parent brand values
Alliances consist of more than one parent brand, so differences in the perceived values of these multiple parent brands should interact in their effects on consumers' perceptions of the value of a brand alliance. Logically, we anticipate that the alliance's perceived value is greatest when the perceived value of both parent brands is high, lowest if both their perceived values are low, and somewhere in between if one parent brand has high and the other has low perceived value. The question that remains is where on the spectrum the perceived alliance value lies when the parent brands differ in their perceived value.

Signaling theory predicts that consumers consider their perceptions of the parent brand value as signals of the value of an alliance, as we discussed previously (Erdem and Swait, 1998). In addition, the effect of the parent brand's perceived value on the perceived value of the alliance should depend on the extent to which a parent brand stands to lose its reputation if the (value) signal is false (i.e. the value of the alliance is lower than consumers expect, based on the reputation of the parent; Erdem and Swait, 1998; Erdem *et al.*, 2006). The extent to which the parent brand stands to lose its reputation in turn might reflect the amount of value it provides: the greater a parent brand's reputation for providing value, the more it stands to lose. In a brand alliance between a low- and a high-value brand, the high-value parent seemingly should have a greater signaling effect on the perceived value of the alliance, because it has more to lose. Because of this stronger signaling effect, we expect that the perceived value of the alliance is more proximate to the perceived value of an alliance between high-value brands, rather than one between low-reputation brands. For example, as Suh and Park (2009) show, a strongly favorable host brand can benefit more from co-branding with a moderately favorable partner, because doing so generates more (fewer) positive (negative) cognitive responses among consumers. Thus, we hypothesize:

H2. Alliances between parent service brands with different perceived values invoke perceived values closer to those of alliances between high-value parents than between low-value parents.

Parent brand contributions
Information integration theory suggests that attitudes form and change as people receive, interpret, evaluate, and integrate information with their existing attitudes (Anderson, 1981).

Consumers' existing attitudes act as cues to help them determine what they think about a new object (Anderson, 1981; Roggeveen *et al.*, 2007). For example, to form attitudes about a customer service center located overseas, consumers use their existing attitudes toward the firm that relies on this center to deliver its services (Roggeveen *et al.*, 2007). Accordingly, consumers' attitudes toward a service alliance should be affected by their pre-existing attitudes toward the parent brands.

Alliances by definition consist of at least two firms, so consumers' attitudes toward both parent brands might influence their attitudes toward the alliance. We again turn to information integration theory, which holds that attitudes toward new objects reflect the summed contributions of each existing attitude, and the contribution weight depends on the relevance of each existing attitude to the new attitude (Anderson, 1981; Roggeveen *et al.*, 2007). In alliances, if both parent brands appear equally relevant, consumers' attitude toward the alliance should depend equally on their attitudes toward both parent brands. However, this relevance is not always equal. For example, Simonin and Ruth (1998) note that a car manufacturer supplies most of the elements of a car, whereas the microprocessor manufacturer with which it allies supplies only the motor management chip. The respective inputs of these two parent brands are not equal, so their relevance to the alliance should also be unequal. When one parent brand is more relevant or important to the alliance, consumers' attitudes should be affected more by that brand. In this example, consumers likely perceive the car manufacturer as more relevant, because it supplies the vast majority of the elements of the alliance product.

Similarly, the relevance of a parent brand for a service brand alliance should depend on the magnitude of its contribution to the alliance, relative to the contributions made by the other parent brands. Because this relevance, depending on the relative magnitude of the contribution to the alliance, in turn affects the perceived value spillover from each parent brand to the alliance, we hypothesize:

> *H3.* The parent brand that consumers perceive to contribute most (least) to the service alliance exerts the greatest (least) effect on the perceived value of the service brand alliance.

Value spillovers from alliances

Consumers' attitudes toward parent brands spillover to their attitudes toward the alliance. After exposure to an alliance, consumers' attitudes toward the alliance also spillover to their attitudes toward the parent brands. According to information integration theory, this reverse spillover occurs because the alliance provides consumers with new associations for both parent brands, which they integrate with the parent brand associations they held prior to being exposed to the alliance. As consumers process more information about the alliance or experience it more, they learn new associations and develop new or altered attitudes about the parent brands (Anderson, 1981). However, attitudes are relatively stable (Fishbein and Ajzen, 1975), so attitudes toward the parent brand still depend on the attitudes they previously held toward the parent brand, before learning about the brand alliance (Simonin and Ruth, 1998).

Overall then, we expect a positive spillover of the perceived value of an alliance on consumers' perceptions of the value of each parent brand. On the basis of evidence that consumers' pre-alliance parent brand attitudes still affect their post-alliance parent brand attitudes (Simonin and Ruth, 1998), we also predict a positive spillover of each parent brand's existing perceived value on its perceived value after the alliance.

That is, the perceived value of the parent brands following their alliance depends on both the perceived value of the service alliance and the perceived value of each parent brand before the alliance. Formally:

H4. A service brand alliance's perceived value has a positive effect on the perceived value of each of its parent brands post-alliance.

H5. A parent brand's perceived value pre-alliance has a positive effect on the perceived value of the same parent brand post-alliance.

Method

Design and procedure

To test the hypotheses, we conducted an experiment in which respondents considered information about two fictional parent brands (X and Y) and indicated their perceived value. The fictional brand names reduced the possibility that imagery or familiarity with a real brand name might drive the results (Rao *et al.*, 1999). The fictional brands came from the same industry, to control for any effect of product fit (Simonin and Ruth, 1998). Next, respondents read an announcement that explained the two brands had decided to join forces in a service alliance; they then indicated the perceived value of that brand alliance. We controlled for the effects of brand fit by including it as a covariate in the model. Finally, after evaluating the alliance, respondents evaluated the parent brands again.

We manipulated the parent brands' perceived value (high vs low) with the information we provided about them. To manipulate the relative contributions of both partners (equal or unequal), we altered the information provided about the alliance. The experimental design thus was a 2 (perceived value of parent brand X: high vs low) × 2 (perceived value of parent brand Y: high vs low) × 2 (alliance contribution: equal vs unequal) full-factorial between-subjects design. E-mail invitations to a random sample of 5,000 students in a mid-sized western European university, which promised them a chance to win one of four iPods, prompted responses from 1,007 students, for a response rate of 20 percent. These respondents were assigned randomly to the scenarios. The results from a time-trend extrapolation (Armstrong and Overton, 1977) indicated no evidence of non-response bias.

Stimuli

In the eight possible scenarios, the parent brands were fictional universities, and the fictional brand alliance was a new graduate program offered jointly by both universities. University education offers a compelling study context, because this service is particularly intangible and abundant with experience properties (Ha, 1998), so the value of such an alliance is very difficult to determine on the basis of direct observation. In turn, the respondents likely needed to rely on heuristics to arrive at their alliance evaluations (Erdem and Swait, 1998; Erdem *et al.*, 2006; Zeithaml, 1988).

To develop the actual stimuli, we conducted interviews with students from the same university, who did not participate in the focal study, in which we sought to capture students' reasons for choosing the university. Many respondents mentioned the university's value for the money. When asked to describe why they believed the university had high value, respondents referred mainly to its home country, ranking, accreditations, known professors, and recognition among potential employers, in line with findings from prior research into university choices (Shanka *et al.*, 2006).

We adjusted the descriptions of these factors in the presentations of Universities X and Y to manipulate perceived value (See the Appendix for a more detailed description of the stimuli.).

Measures
Manipulation checks. A seven-point ("strongly disagree" to "strongly agree"), seven-item, Likert-type scale served as our check of the manipulation of pre-alliance parent brand value (Grewal *et al.*, 1998; Ruiz *et al.*, 2008). A seven-point, single-item, semantic differential scale ("University X–University Y contributes most to the new joint master's program") provided the manipulation check for the parent brand relative contributions.

Service value and brand fit. To measure the value of the alliance and the parent brands after the alliance, we used the same seven-point, seven-item, Likert-type agreement scale we applied for the manipulation check for pre-alliance parent brand value (Grewal *et al.*, 1998; Ruiz *et al.*, 2008). In addition, a seven-point, five-item, semantic differential scale measured the covariate, brand fit (John *et al.*, 1998).

Analysis and results
Manipulation checks
As is reported in Table I, respondents perceived the value of University X as significantly higher in scenarios in which we manipulated it to be high than in scenarios in which we manipulated it to be low ($M_{HIGH} \geqslant 5.90$, $M_{LOW} \leqslant 2.92$, Welch[1] $(7,417.12) = 346.46$, $p < 0.01$). They similarly perceived the reputation of University Y to be significantly higher in the corresponding scenarios ($M_{HIGH} \geqslant 5.93$, $M_{LOW} \leqslant 3.12$, Welch $(7,420.39) = 415.71$, $p < 0.01$). Finally, respondents indicated that the contributions of both parent brands were more equal in the equal contribution scenarios than in unequal contribution scenarios ($M_{EQUAL} \geqslant 3.15$, $M_{UNEQUAL} \leqslant 1.95$, Welch $(7,418.04) = 134.35$, $p < 0.01$).

In judging these means, it is important to recall that we measured contributions on a seven-point semantic differential scale, anchored at "University X contributes most to the new joint master's program" (1) and "University Y contributes most to the new joint master's program" (7). Although we might expect consumers to select the midpoint of the scale (4) for the equal contribution, the slightly lower mean rating likely resulted because all the manipulations presented the joint program as taught "at University X" (see the Appendix). Overall, the manipulations of parent brands' reputations and relative contributions to the alliance appeared successful.

Measurement and structural model results
To test our $2 \times 2 \times 2$ between-subjects experimental design, we used partial least squares (PLS) path modeling (Chin, 1998). Specifically, we relied on SMARTPLS 2.0 Beta (Ringle *et al.*, 2005), with its 200 resample bootstrapping procedure, to identify

Variable		Mean	n	Levine statistic	Welch
Value X	High	5.90	537	14.203	346.460
	Low	2.92	470		
Value Y	High	5.93	500	10.184	415.710
	Low	3.12	507		
Contribution	Equal	3.15	503	4.593	134.347
	Unequal	1.95	504		

Table I.
Descriptive statistics for the manipulation tests

level sign changes (Tenenhaus *et al.*, 2005), and obtain parameter estimates for the measurement and structural models. Compared with more traditional techniques, like ANOVA or multiple regression, our use of structural equation modeling enabled us to control for measurement error, test a more complex theoretical structure, and effectively assess measurement reliability and validity (Mackenzie, 2001). For example, the use of structural equation modeling allows for testing the hypothesized effect of the manipulations on the value of the alliance and ultimately the value of the parent brand after alliance, while controlling for any direct effects of the manipulations on the value of the parent brand after alliance. It also allows for the inclusion of both endogenous variables with multi-item constructs (e.g. service value of the alliance) and exogenous variables with single indicators (e.g. value parent brand X). Figure 1 contains our structural model.

To test the experimental data with this structural model, we specified single indicators for the manipulated variables (value parent brand X, value parent brand Y, contribution) and their interactions. We used effect coding for the manipulated variables, rather than dummy coding, so that we could test both interaction and main effects (O'Grady and Medoff, 1988; Pedhazur, 1997). Therefore, low parent brand X (Y) value was coded −1 and high parent brand X (Y) value was 1; equal contributions were coded 1 and unequal contributions were −1.

Measurement model tests
The PLS results revealed that all measures achieved composite reliabilities greater than 0.90 and average variances extracted (AVE) greater than 0.70 (see Table II). Because these values exceed their recommended cut-off values (respectively 0.7, Nunnally and Bernstein, 1994; 0.5, Fornell and Larcker, 1981), the measures are reliable.
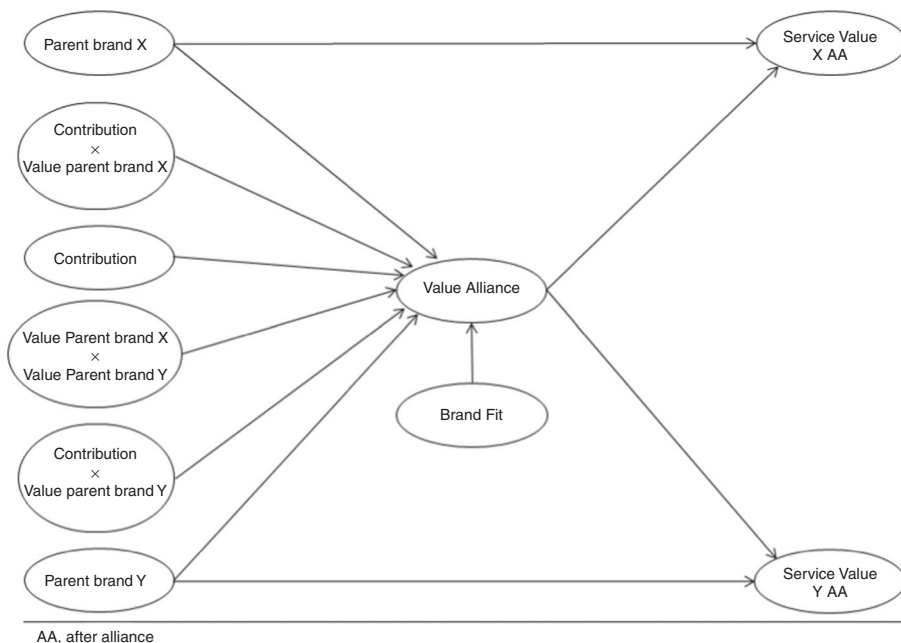

AA, after alliance

Figure 1.
Structural model

Construct	Item	Loading	CR	AVE
Brand fit	The image I have of university X and the image I have of university Y […]		0.93	0.73
	[…] are different – similar	0.72		
	[…] are not complementary – complementary	0.77		
	[…] make a bad fit – good fit	0.94		
	[…] are inconsistent – consistent	0.89		
	[…] fit together badly – well	0.93		
Service value alliance	Overall I expect that the education offered by the joint program […]		0.98	0.86
	[…] is a good education for the tuition fee	0.93		
	[…] compares favourably to the education offered by other universities	0.92		
	[…] is worth the tuition fee	0.95		
	[…] is of excellent value	0.94		
	[…] is good value for the tuition fee	0.94		
	[…] will help me to get a good job after graduation	0.91		
	[…] will help me to build a good career	0.90		
Post-alliance service value university X	Overall I expect that the education offered by university X […]		0.98	0.89
	[…] is a good education for the tuition fee	0.95		
	[…] compares favourably to the education offered by other universities	0.95		
	[…] is worth the tuition fee	0.96		
	[…] is of excellent value	0.96		
	[…] is good value for the tuition fee	0.96		
	[…] will help to get a good job after graduation	0.93		
	[…] will help to build a good career	0.92		
Post-alliance service value university Y	Overall I expect that the education offered by university Y […]		0.98	0.90
	[…] is a good education for the tuition fee	0.95		
	[…] compares favourably to the education offered by other universities	0.95		
	[…] is worth the tuition fee	0.96		
	[…] is of excellent value	0.96		
	[…] is good value for the tuition fee	0.96		
	[…] will help to get a good job after graduation	0.94		
	[…] will help to build a good career	0.93		

Notes: CR, composite reliablity; AVE, average variance extracted

Table II.
Psychometric properties of the construct measures

Moreover, the square root of the AVE for each construct exceeds its inter-correlations with the other constructs (see Table III), in support of the discriminant validity of our measures (Chin, 1998; Fornell and Larcker, 1981).

Structural model test
In support of *H1*, the perceived value of both University X ($\beta = 0.490$, $p < 0.01$) and University Y ($\beta = 0.247$, $p < 0.01$) had significant, positive effects on the perceived value of their service alliance (see Table IV). The greater the value of the parent brand, the greater the perceived value of the service alliance (Figure 2).

The interaction of the perceived values of Universities X and Y was also significant ($\beta = -0.178$, $p < 0.01$) (see Table IV). To interpret the PLS results we conducted a *post hoc*

univariate analysis of variance to estimate the marginal means of the service alliance's value (Figure 2, panel C), which revealed that the perceived value of the alliance was optimized when both parent brands offered high perceived value ($M_{marg} = 5.42$). This value decreased slightly if University X provided high but University Y had low perceived value ($M_{marg} = 5.26$), and then decreased further if the alliance featured a highly valuable University Y and a low-value University X ($M_{marg} = 4.57$). This distinction likely reflects the description of the alliance in our stimulus, as we discuss in more detail subsequently. Finally, the perceived value of the alliance dropped substantially when both parent brands offered low perceived value ($M_{marg} = 3.27$). These results support *H2*: the perceived value of an alliance approximates the perceived value of an alliance between high-value parents more than of an alliance between low-value parents.

In support of *H3*, the PLS results also showed significant interaction effects between the perceived value and the contribution of each parent brand (Table IV). For University X, the interaction of its perceived value and its contribution exerted a significant, negative effect ($\beta = -0.111$, $p < 0.01$) on the perceived value of the alliance. For University Y, this interaction also was significant, but the effect on the alliance's perceived value was positive ($\beta = 0.121$, $p < 0.01$). The difference was due to the coding of the contribution variable: contribution was coded -1 when University X contributed most but 1 when both Universities X and Y contributed equally. Therefore, University X's contribution to the alliance was maximal when contribution equaled -1, whereas University Y's maximum contribution was equal to 1.

Construct	1	2	3	4
1. Service value of the alliance	0.926			
2. Service value of parent brand X AA	0.786	0.946		
3. Service value of parent brand Y AA	0.508	0.347	0.950	
4. Brand fit	0.274	0.195	0.110	0.854

Notes: Square root of AVE are presented on the diagonal. All correlations are significant at the 0.01 level (two-tailed)

Table III.
Inter-correlations among constructs

Hypothesis	Path	Coefficient	*p*-Value
1	Value X–Value A	0.490	< 0.01
	Value Y–Value A	0.247	< 0.01
2	Value X × Value Y–Value A	−0.178	< 0.01
3	Value X × contribution–Value A	−0.111	< 0.01
	Value Y × contribution–Value A	0.121	< 0.01
4	Value A–Value X AA	0.591	< 0.01
	Value A–Value Y AA	0.418	< 0.01
5	Value X–Value X AA	0.402	< 0.01
	Value Y–Value Y AA	0.592	< 0.01

Notes: Value X, perceived value of university X; Value Y, perceived value of university Y; Value A, perceived value of the alliance (joint program); contribution, perceived contribution to the alliance; Value X AA, perceived value of university X post-alliance (joint program); Value Y AA, perceived value of university Y post-alliance (joint program)
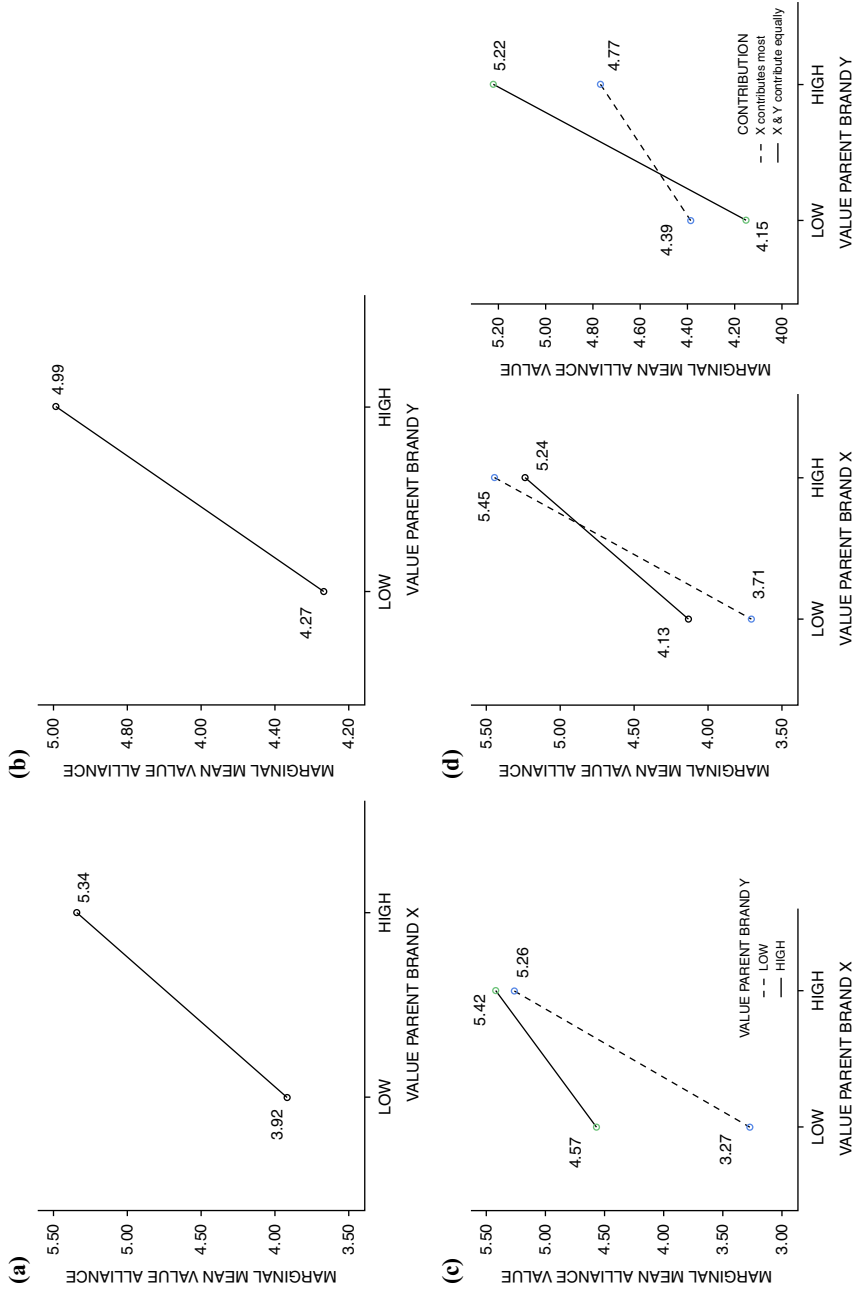
Table IV.
Hypotheses tests

Figure 2.
Mean plots

To determine the exact nature of these interactions, we conducted a *post hoc* univariate analysis of variance to estimate the marginal means of the service alliance's value (Figure 2, panel D). From the perceived value-contribution interaction for University X, we found the highest perceived value of the alliance ($M_{marg} = 5.45$) if this parent brand's perceived value was high and its contribution was highest. The perceived value of the alliance decreased slightly ($M_{marg} = 5.24$) if University X's perceived value remained high but its contribution was low (equal contribution scenario). Then this perceived value decreased further ($M_{marg} = 4.13$) if both the perceived value and the contribution of University X were low. However, the lowest perceived value for the alliance ($M_{marg} = 3.71$) arose when the perceived value of University X was low, but its contribution was high. We found parallel results for University Y, such that the perceived value of the alliance went from highest ($M_{marg} = 5.22$) with high perceived value and contribution, to lower ($M_{marg} = 4.77$) with high perceived value but low contribution, lower again ($M_{marg} = 4.39$) with low perceived value and contributions, and lowest ($M_{marg} = 4.15$) in the situation when University X offered low perceived value but high contributions. These findings support *H3*, because for both parent brands, the effect of its perceived value on the perceived value of the alliance was greatest when its contribution to the alliance increased.

The post-alliance perceived value of the parent brand depended on both the perceived value of the brand alliance (*H4*) and the pre-alliance perceived value of the parent brand (*H5*) (Table IV). The perceived value of the alliance had significant, positive effects on the value of University X ($\beta = 0.591$, $p < 0.01$) and University Y ($\beta = 0.418$, $p < 0.01$). In addition, its pre-alliance perceived value had a significant, positive effect on the post-alliance perceived value of University X ($\beta = 0.402$, $p < 0.01$), and the pre-alliance reputation of University Y significantly and positively affected its post-alliance perceived value ($\beta = 0.592$, $p < 0.01$).

Discussion
Ample evidence exists, showing that consumers' attitudes (James *et al.*, 2006; Simonin and Ruth, 1998) and quality perceptions (Rao *et al.*, 1999; Voss and Gammoh, 2004) spillover from parent brands to alliances, though mostly in product-related contexts. This study offers evidence of similar spillovers of perceived value from parent brands to a service alliance (*H1*) and back again to the parent brand (*H4*). In addition, by addressing the effects across different forms of brand alliances (Simonin and Ruth, 1998), we find that value spillovers from a parent brand to a service alliance depend on the perceived value of the partnering brand and the relative contributions of each parent brand to the service alliance.

Specifically, the perceived value of a service alliance depends on the interaction of the perceived value of each parent brand and their relative contributions. As predicted by signaling theory, the value of a service alliance depends on the perceived value of both partners; if they both provide high value, the value of the alliance increases to its optimal level. However, if one partner provides low value, the alliance loses some perceived value; it is lowest when both parent brands provide low value. Yet an alliance between parent brands that differ in perceived value achieves value closer to the perceived value of an alliance between high-value parents, rather than to that of an alliance between low-value parents. In this sense, the high perceived value of one parent brand seems to compensate for the low perceived value of its partner.

We can explain this finding according to signaling theory, in that the high-value parent brand stands to lose the most, because the effect of each parent brand's perceived

value on the value of the alliance depends on the amount of reputation it stands to lose (Erdem and Swait, 1998; Erdem *et al.*, 2006). The signaling effect of the high perceived value parent brand therefore should be greater than the signaling effect of the low perceived value brand, so an alliance between two such brands produces a perceived value level that more closely approximates the level achieved for an alliance between two high-value parent brands.

We also uncovered different values between alliances that featured high brand X/low brand Y value vs low brand X/high brand Y value. This finding likely reflects the description of the alliance that we used in the stimulus. Specifically, the stimulus indicated that students of the joint program would always (regardless of the relative contribution) study at University X (see the Appendix). Therefore, the relevance of University X to the alliance likely was higher across all conditions, which increased the weight that respondents assigned to the perceived value of University X when they evaluated the alliance (Roggeveen *et al.*, 2007). When University X offered higher value, it thus led to perceptions of higher value for the alliance, compared with when only University Y provided high value.

Finally, the effect of the perceived value of the parent brand on the perceived value of the alliance depended on the parent brand's relative contribution to the alliance, such that a greater contribution reinforced the effect of that brand's perceived value to the service alliance. This reinforcement effect works both ways: if the parent brand's contribution to an alliance appears high, its high perceived value increases the perceived value of the alliance more, relative to when that brand's contribution is low. If the parent brand's contribution to an alliance appears high, its low perceived value also decreases the perceived value of the alliance more, relative to when its contribution is low. In line with information integration theory, respondents seemingly used their existing attitudes toward the parent brands as cues to evaluate the new service alliance (Anderson, 1981; Roggeveen *et al.*, 2007). Thus, the effect of a parent brand's perceived value on the value of a service alliance also depends on the parent brand's relevance, and consumers likely perceive relative contributions as signals of each parent brand's relevance to an alliance.

Managerial implications
By demonstrating that the spillover of value from a parent brand to an alliance depends on both the perceived value of the partnering brands and their perceived contributions to the alliance, this study suggests some methods that firms can use to optimize the value of their alliances. For example, because we find that the perceived value of alliances with one high-value and one low-value brand is closer to the value of alliances with two high-value brands, parent firms should consistently seek partners that provide high perceived value. Regardless of whether the firm offers high or low value itself, the alliance value benefits from a higher value partner. If a firm must partner with a low-value brand (e.g. because it owns technology essential to the alliance), the alliance still can achieve high perceived value, as long as the focal firm offers high value.

The slight negative effect of a low-value partner also can be mitigated by careful alliance design. As we show, the effect of the perceived value of a parent brand on the alliance's value gets reinforced by the extent of the parent brand's perceived contribution to that alliance. Therefore, when it must partner with a lower value brand, a firm should design the service alliance to signal to consumers that it contributes the majority of the service. This design has a dual positive effect: first, the greater

contribution of the high-value parent brand reinforces its positive effect on the perceived value of the alliance. Second, the small contribution of the low-value parent brand mitigates its negative effect on this perceived alliance value.

Limitations and further research
The findings and limitations of our study offer several directions for continued research into value spillovers in service alliances. First, to test the generalizability of the findings, researchers might investigate value spillovers in alliances focussed on different kinds of services. The type of service could influence the spillover of value in brand alliances, beyond the factors we highlight. The degree to which consumers use their beliefs about the value of the parent brands to judge the value of an alliance may depend on how well they can directly assess the service alliance. Such evaluations tend to be harder for intangible services (Shostack, 1977) that consist mainly of experience and credence properties (Ha, 1998), such as education, the focal service for our study. The value spillovers might be relatively weaker for alliances that feature more tangible services with more search properties.

Second, we hope research extends our findings by investigating potential changes in value spillovers over time, as consumers become more familiar with an alliance. We tested value spillovers for an alliance to which the respondents had just been introduced, but consumers could shift the basis of their value judgments increasingly toward their beliefs about the alliance service itself as they gain more familiarity with that service. Then the relative influence of the value spillovers from parent brands would decrease. In contrast, human associative memory theory (Anderson, 1983; van Osselaer and Janiszewski, 2001) predicts that customers learn new beliefs only if doing so helps them predict the performance or value of a service more accurately. If they learn that parent brand beliefs accurately predict the value of an alliance, they might not bother to develop beliefs more directly related to the alliance, so the value spillovers would remain more or less constant, even as consumers gain more familiarity with the alliance service. This latter prediction of continued dependence on parent brand beliefs may be especially pronounced for credence services, such as education, for which it remains relatively difficult for consumers to develop core-service related beliefs.

Third, we have investigated how value spillover from a parent brand to an alliance depends on the perceived value of partnering brands and their relative contributions, though similar to Simonin and Ruth (1998), we also find reverse value spillovers, from the alliance to the parent brands. Further research should investigate how these reverse value spillovers might be affected by differences in perceived parent brand values or contributions.

Note
1. We used the Welch statistic, instead of the more common *F*-statistic, to correct for the unequal group sizes and unequal variances across groups (Toothaker, 1991).

References

Anderson, J.R. (1983), "A spreading activation theory of memory", *Journal of Verbal Learning and Verbal Behavior*, Vol. 22 No. 3, pp. 261-295.

Anderson, N.H. (1981), *Foundations of Information Integration Theory*, Academic Press, New York, NY.

Armstrong, J.S. and Overton, T.S. (1977), "Estimating nonresponse bias in mail surveys", *Journal of Marketing Research*, Vol. 14 No. 3, pp. 396-402.

Bluemelhuber, C., Carter, L.L. and Lambe, C.J. (2007), "Extending the view of brand alliance effects: an integrative examination of the role of country of origin", *International Marketing Review*, Vol. 24 No. 4, pp. 427-443.

Bourdeau, B.L., Cronin, J.J. Jr and Voorhees, C.M. (2007), "Modeling service alliances: an exploratory investigation of spillover effects in service partnerships", *Strategic Management Journal*, Vol. 28 No. 6, pp. 609-622.

Broniarczyk, S.M. and Alba, J.W. (1994), "The importance of the brand in brand extension", *Journal of Marketing Research*, Vol. 31 No. 2, pp. 214-228.

Chin, W.W. (1998), "The partial least squares approach to structural equation modeling", in Marcoulidis, G.A. (Ed.), *Modern Business Research Methods*, Lawrence Erlbaum Associates, Mahwah, NJ, pp. 295-336.

Erdem, T. and Swait, J. (1998), "Brand equity as a signaling phenomenon", *Journal of Consumer Psychology*, Vol. 7 No. 2, pp. 131-157.

Erdem, T., Swait, J. and Valenzuela, A. (2006), "Brands as signals: a cross-country validation study", *Journal of Marketing*, Vol. 70 No. 1, pp. 34-49.

Fishbein, M. and Ajzen, I. (1975), *Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research*, Addison-Wesley, Reading, MA.

Fornell, C. and Larcker, D.F. (1981), "Evaluating structural equation models with unobservable variables and measurement error", *Journal of Marketing Research*, Vol. 18 No. 1, pp. 39-50.

Gammoh, B.S., Voss, K.E. and Chakraborty, G. (2006), "Consumer evaluation of brand alliance signals", *Psychology & Marketing*, Vol. 23 No. 6, pp. 465-486.

Grewal, D., Monroe, K.B. and Krishnan, R. (1998), "The effects of price-comparison advertising on buyers' perceptions of acquisition value, transaction value, and behavioral intentions", *Journal of Marketing*, Vol. 62 No. 2, pp. 46-59.

Ha, L. (1998), "Advertising appeals used by service marketers: a comparison between Hong Kong and the United States", *Journal of Services Marketing*, Vol. 12 No. 2, pp. 98-112.

James, D.O., Lyman, M. and Foreman, S.K. (2006), "Does the tail wag the dog? Brand personality in brand alliance evaluation", *Journal of Product & Brand Management*, Vol. 15 No. 3, pp. 173-183.

John, D.R., Loken, B. and Joiner, C. (1998), "The negative impact of extensions: can flagship products be diluted?", *Journal of Marketing*, Vol. 62 No. 1, pp. 19-32.

Keller, K.L. (2003), "Brand synthesis: the multidimensionality of brand knowledge", *Journal of Consumer Research*, Vol. 29 No. 4, pp. 595-600.

Mackenzie, S.B. (2001), "Opportunities for improving consumer research through latent variable structural equation modeling", *Journal of Consumer Research*, Vol. 28 No. 1, pp. 159-166.

Nunnally, J.C. and Bernstein, I.H. (1994), *Psychometric Theory*, 3rd ed., McGraw-Hill, New York, NY.

O'Grady, K.E. and Medoff, D.R. (1988), "Categorical variables in multiple regression: some cautions", *Multivariate Behavioral Research*, Vol. 23 No. 2, pp. 243-260.

Pedhazur, E.J. (1997), *Multiple Regression in Behavioral Research: Explanation and Prediction*, 3rd ed., Harcourt Brace College Publishers, Fort Worth, TX.

PWC (2002), "Trendsetter barometer", available at: www.barometersurveys.com (accessed August 26, 2005).

PWC (2014), "Good to grown 2014 US CEO survey", p. 22, available at: www.pwc.com/usceosurvey (accessed October 12).

Rao, A.R. and Ruekert, R.W. (1994), "Brand alliances as signals of product quality", *Sloan Management Review*, Vol. 36 No. 1, pp. 87-97.

Rao, A.R., Lu, Q. and Ruekert, R.W. (1999), "Signaling unobservable product quality through a brand ally", *Journal of Marketing Research*, Vol. 36 No. 2, pp. 258-268.

Ringle, C.M., Wende, S. and Will, A. (2005), *SMART PLS*, University of Hamburg, Hamburg.

Roggeveen, A.L., Bharadwaj, N. and Hoyer, W.D. (2007), "How call center location impacts expectations of service for reputable versus lesser known firms", *Journal of Retailing*, Vol. 83 No. 4, pp. 403-410.

Ruiz, D.M., Gremler, D.D., Washburn, J.H. and Carrión, G.C. (2008), "Service value revisited: specifying a higher-order, formative measure", *Journal of Business Research*, Vol. 61 No. 2, pp. 1278-1291.

Samuelsen, B.M. and Olsen, L.E. (2012), "The attitudinal response to alternative brand growth strategies", *European Journal of Marketing*, Vol. 46 Nos 1/2, pp. 177-191.

Shanka, T., Quintal, V. and Taylor, R. (2006), "Factors influencing international students' choice of an education destination – a correspondence analysis", *Journal of Marketing for Higher Education*, Vol. 15 No. 2, pp. 31-46.

Shostack, G.L. (1977), "Breaking free from product marketing", *Journal of Marketing*, Vol. 41 No. 2, pp. 73-80.

Simonin, B.L. and Ruth, J.A. (1998), "Is a company known by the company it keeps? Assessing the spillover effects of brand alliances on consumer brand attitudes", *Journal of Marketing Research*, Vol. 35 No. 1, pp. 30-42.

Suh, J.-Y. and Park, S.-B. (2009), "Successful brand alliance and its negative spillover effect on a host brand: test of cognitive responses", *Advances in Consumer Research*, Vol. 36, pp. 243-246.

Tenenhaus, M., Vinzi, V.E., Chatelin, Y.-M. and Lauro, C. (2005), "PLS path modeling", *Computational Statistics and Data Analysis*, Vol. 48 No. 1, pp. 159-205.

Toothaker, L.E. (1991), *Multiple Comparisons for Researchers*, Sage Publications Inc., Newbury Park, CA.

Tsantoulis, M. and Palmer, A. (2008), "Quality convergence in airline co-brand alliances", *Managing Service Quality*, Vol. 18 No. 1, pp. 34-64.

Uggla, H. and Asberg, P. (2010), "The benefits and risks of strategic brand collaboration", *Journal of Brand Management*, Vol. 7 No. 3, pp. 35-48.

van Osselaer, S.M.J. and Janiszewski, C. (2001), "Two ways of learning brand associations", *Journal of Consumer Research*, Vol. 28 No. 2, pp. 202-223.

Voss, K.E. and Gammoh, B.S. (2004), "Building brands through brand alliances: does a second ally help?", *Marketing Letters*, Vol. 15 Nos 2/3, pp. 147-159.

Votolato, N.L. and Unnava, H.R. (2006), "Spillover of negative information on brand alliances", *Journal of Consumer Psychology*, Vol. 16 No. 2, pp. 196-202.

Zeithaml, V.A. (1988), "Consumer perceptions of price, quality, and value: a means-end model and synthesis of evidence", *Journal of Marketing*, Vol. 52 No. 3, pp. 2-22.

Zeithaml, V.A., Bitner, M.J. and Gremler, D.D. (2013), *Services Marketing: Integrating Customer Focus Across the Firm*, 6th ed., Irwin/McGraw-Hill, New York, NY.

Appendix

Stimulus: high-value parent brand

University X/Y […]   is a 250-year old mid-sized university located in northwestern Europe

is consistently ranked high in national, European and worldwide rankings. In the past 10 years it was always ranked among the top-10 in the renowned Times Higher Education ranking of the best 200 universities worldwide

possesses both national and international university accreditations and its staff includes several Nobel Prize winners

is well known among many of your friends and relatives. A recent newspaper article reported that 90% of all employers in Europe are familiar with University X/Y and its graduates

charges an annual tuition fee of EUR 1,500

Stimulus: low-value parent brand

University X/Y […]   is a 40-year old mid-sized university located in northwestern Europe

is consistently ranked near the bottom in national, European and worldwide rankings. In the past 10 years it never succeeded in reaching the minimum level to be included in the renowned Times Higher Education ranking of the best 200 universities worldwide

possesses national university accreditations and is yet to produce a Nobel Prize winner

is known among 1 or 2 of your friends and relatives. A recent newspaper article reported that 5% of all employers in Europe are familiar with University X/Y and its graduates

charges an annual tuition fee of EUR 1,500

Stimulus: alliance with equal contributions

At the start of the current academic year university X and university Y began to cooperate on a new joint master's program in your field of study. The new program is meant to appeal to students looking for quality and a challenging program

Students in this 1-year program stay at university X for the entire academic year. One half of the program is organized and taught by professors from university X and the other half by professors of university Y

Both partner universities feel that the new joint master's program offers students a unique possibility to benefit from the latest knowledge and teaching skills of both universities

The annual tuition fee for the joint program is EUR 1,500

Stimulus: alliance with unequal contributions

At the start of the current academic year university X and university Y began to cooperate on a new joint master's program in your field of study. The new program is meant to appeal to students looking for quality and a challenging program

Students in this 1-year program stay at university X for the entire academic year. The entire program is organized and taught by professors from university X, except for a 1-week course that is organized and taught by professors of university Y

Both partner universities feel that the new joint master's program offers students a unique possibility to benefit from the latest knowledge and teaching skills of both universities

The annual tuition fee for the joint program is EUR 1,500

Table AI.
Stimuli

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