THE IMPACT OF SERVICE CHARACTERISTICS ON THE SWITCHING COSTS-CUSTOMER LOYALTY LINK

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This research investigates the interrelationship between service characteristics and switching costs and makes two contributions to the service retailing literature: (1) As a means of better understanding the effectiveness of switching costs, the study suggests a two-dimensional typology of switching costs, including internal and external switching costs; and (2) it reveals that the effect of these switching costs on customer loyalty is contingent upon four service characteristics (the IHIP characteristics of service). We carried out a meta-analytic review of the literature on the switching costs–customer loyalty link and created a hierarchical linear model using a sample of 1,694 customers from 51 service industries. Results reveal that external switching costs have a stronger average effect on customer loyalty than do internal switching costs. Moreover, we find that IHIP characteristics moderate the links between switching costs and customer loyalty. Thus, the link between external switching costs and customer loyalty is weaker in industries higher in the four service characteristics (as compared to industries lower in these characteristics), while the opposite moderating effect of service characteristics for the internal switching costs-loyalty link is noted.

Key words: Switching costs; service retailing; service characteristics; customer relationships; hierarchical linear modeling; meta-analysis

During the last decade, an increasing number of studies have contributed to understanding the construct of switching costs, defined as "the perceived economic and psychological costs associated with changing from one alternative to another" (Jones, Mothersbaugh, and Beatty 2002, p. 441). Recently, researchers have clarified the construct, while also developing useful measurement scales of it (Burnham, Frels, and Mahajan. 2003; Jones, Mothersbaugh, and Beatty 2002). Moreover, research has identified the mechanisms through which switching costs influence important relationship marketing outcomes, such as customer loyalty, word-of-mouth behavior, and customer commitment (Dwyer, Schurr, and Oh 1987; Heide and Weiss 1995; Jap and Ganesan 2000; Jones et al. 2007; Lam et al. 2004; Ping 1993).

Retail managers often use switching costs as a means to encourage customers to stay with the firm. Since most retailers offer a wide variety of services (e.g., restaurants, e-commerce websites, financial services), important questions are whether switching costs are effective in retaining customers for the various retail services, and if so, which types are most effective.[1]

Research that tests the impact of switching costs on customer loyalty has produced inconsistent results (as our meta-analytic review will show). These inconclusive findings may be a consequence of a number of factors, including the type of service industry and the type of switching costs. The need to study contextual factors is underlined by a recent meta-analysis by Pick and Eisend (2013), in which they found a surprisingly weak overall effect of switching costs on switching intention (r=-.090). The authors note that switching costs affect switching intention in service industries (r=-.108) but not in goods industries (r=.054).

[1] We acknowledge a broad view of retailing, in which retail is defined as the sale of goods and *services* from individuals or businesses to the end-user ("Retail"). Many traditional service organizations (e.g., telecommunications companies) are clearly retailers selling both products and services to consumers in *retail* stores. Thus, while the line between retailers and service providers is a bit blurry, using the term, retail service providers (i.e., firms focusing on selling goods and/or services to consumers), seems appropriate and will be generally applied throughout this paper.

However, the retail service industry is heterogeneous (Zeithaml and Bitner 2003), and whether the impact of switching costs also differs *between* retail service industries remains untested. Thus, our study attempts to examine the effectiveness of different types of switching costs across retail service industries serving the consumer market (Pick and Eisend (2013) did not assess differences across retail service industries).

More general characteristics of services, including intangibility, heterogeneity, inseparability, and perishability (referred to as the IHIP characteristics), might be useful in assessing the effects of switching costs on important outcomes such as customer loyalty. While studies suggest that different types of switching costs vary in their relevance across service industries (Burnham, Frels, and Mahajan 2003), it remains unclear how these costs interact with service characteristics. Against this backdrop, we contribute to the literature in several ways.

First, we offer a two-dimensional conceptualization of perceived switching costs, differentiating between an internal and an external dimension. We distinguish between (a) internal switching costs, which are costs primarily rooted in an individual customer's expertise, skills, or ability relative to considering a switch, and (b) external switching costs, which are costs based on the benefits provided by the provider to encourage the customer to stay.

Second, we examine whether the effects of both types of switching costs on customer loyalty are contingent upon four service characteristics. Particularly, we test (a) whether an interaction effect exists between service characteristics and switching costs, (b) the direction of this effect, and (c) whether the four service characteristics affect perceptions of switching costs equally.

This study begins by providing a brief overview of the dimensionality of switching costs and the IHIP-classification of services. After deriving our hypotheses, we employ meta-analytic techniques including 183 correlations from more than 33,268 customers to test our basic

assumption that whether the link between switching costs and customer loyalty varies across different types of switching costs and across different retail services industries (Study 1). Study 2, using data from 51 retail service industries and 1,694 customers, along with expert ratings on service characteristics, provides further evidence for the impact of IHIP characteristics on the effectiveness of switching costs. Finally, we discuss the results of both analyses and the associated managerial implications.

SERVICE CHARACTERISTICS, SWITCHING COSTS, AND CUSTOMER LOYALTY

The Internal/External-Switching Costs Typology

Switching costs are "the perceived economic and psychological costs associated with changing from one alternative to another" (Jones, Mothersbaugh, and Beatty 2002, p. 441). These costs are "search costs, transaction costs, learning costs, loyal customer discounts, customer habit, emotional cost and cognitive effort, coupled with financial, social, and psychological risk on the part of the buyer" (Fornell 1992, p. 10).

Burnham and colleagues (2003) suggest a three-dimensional typology: (1) procedural, (2) financial, and (3) relational switching costs. Procedural switching costs relate to an individual's perceived effort of information gathering and evaluation of the necessary steps involved in switching. They capture the expected costs associated with information gathering prior to changing a service provider (pre-switching costs), costs anticipated with evaluation of a new service provider (uncertainty costs), costs associated with the establishment of a new relationship (setup costs), and the costs expected relative to learning the routines and procedures of a new provider (post-switching and behavioral costs). Financial switching costs arise from structural bonds imposed by the provider. They capture costs stemming from specific benefits that could be lost when switching from a current provider (costs of lost performance), and from previous investments that could be lost if the customer switched (sunk costs). Third, the provider's

relationship-building efforts result in relational switching costs. Cases in which the customer must break a bond with a provider-brand (brand relationship costs) and/or with a customer-contact employee (personal relationship loss costs) can result in emotional discomfort for the customer.

Procedural switching costs are rooted primarily in the individual, who may lack the expertise, skills, or ability to gather the necessary information associated with the switching process, to evaluate alternative service providers, or to learn the procedures and routines of the new firm, all of which make switching more difficult. We refer to these as *internal switching costs*. On the other hand, the provider sets up financial and relational switching costs in order to create additional benefits or bonds that can bind the customer to the firm.[2] We refer to these costs as *external switching costs*. We expect these switching costs will differ in their impact on customer loyalty given theories such as information processing and expectancy disconfirmation. While information processing theory suggests that consumers need a good understanding about the service offering in order to overcome internal switching costs (making them ineffective), expectancy disconfirmation theory argues that a good understanding of the service offering helps managers to develop external switching costs that meet the customer expectations (making them more effective) (Oliver 1993).

The goal of this study is to derive new insights into the effectiveness of switching costs across service industries by applying this two-dimensional typology. This is useful for two reasons. First, the literature argues that in evaluating services vs. goods, customer expertise often plays a greater role in decision-making because the individual is actively involved in service creation and faced with the challenge of assessing intangible offerings (Andreassen and

[2] With respect to sunk costs, Jones, Mothersbaugh, and Beatty (2002, p. 443) argue that "… much of the time and effort required to establish and maintain a service relationship involves interpersonal dimensions."

Lindestad 1998; Zeithaml and Bitner 2003). Even within a particular retail service industry, the necessary expertise to switch may differ between individuals, suggesting that internal switching costs' relevance may also vary across these industries.

Second, the service literature stresses the existence of numerous perceptual gaps between customers and firms, which complicate design, development, delivery and communication of a firm's actions (Parasuraman, Zeithaml, and Berry 1985). We argue that due to these discrepancies, the service benefits that might be lost in a switch (i.e., external switching costs) are not equally effective across service industries, with the potential perceptual gaps causing relationship-building efforts (such as service brands and loyalty schemes) to work differently in different industries (e.g., Dall'Olmo and Chernatony 2000).[3]

The IHIP Framework

Researchers often study services by examining different combinations of service characteristics in order to classify types of services into groups with similar characteristics (Shafti, Van der Meer, and Williams 2007). One such approach, the IHIP framework, differentiates services and products on four key aspects—intangibility, heterogeneity, inseparability, and perishability (Shostack 1977).[4]

The first service characteristic is *intangibility*, which suggests that services "can't be held, touched, or seen before the purchase decision," making services more difficult to evaluate than products (Kerin et al. 2003, p. 323). The literature further distinguishes between "physical intangibility" (that which cannot be touched) and "mental intangibility" (that which cannot be mentally grasped) (Bateson 1979, p. 139). While physical intangibility refers to the

[3] In our second study, we also tested the dimensionality of the switching costs' constructs and found them to consist of two instead of three higher-order dimensions.

[4] Since the literature offers several approaches for providing generalizations across service industries other than the IHIP framework (Lovelock 1983, 2004; Lovelock and Gummesson 2004), we also tested several alternative classifications, but in our analyses, they did not show significant interaction effects.

inaccessibility of the service to the individual's senses, mental intangibility underscores that individuals have difficulties forming a clear mental image of the service (Laroche, Bergeron, and Goutaland 2001). *Heterogeneity* refers to the inability of a firm to provide consistent service performance and quality.[5] This lack of consistency can derive from customer interaction with the retail service provider, or from unique customer demands and expectations across service employees and contexts (Pine 1993; Pride and Ferrell 2003; Solomon and Stuart 2003). *Inseparability* refers to the simultaneous production and consumption of such as a service. This simultaneity requires active or passive participation by the customer (e.g., Bendapudi and Leone 2003; Bitner et al. 1997). The fourth service dimension, *perishability*, refers to the difficulty firms encounter in creating and storing services in advance (Zeithaml and Bitner 2003), making it more difficult for a customer to assess the offering prior to purchasing it.

In a first attempt to examine the interrelationship between industry characteristics and switching costs, Burnham, Frels, and Mahajan (2003) found that product complexity and provider heterogeneity increase switching costs, with different effects attributed to the variables based on type of switching cost. The authors argue that complexity of the offering may negatively affect the customer's ability to understand or use the offering. Similarly, offerings with greater complexity involve a larger number of skills or scripts that a customer must relearn in order to switch providers. In addition, complex offerings are not easy for customers to try, making it harder for the customer to establish the new relationship. Noting that internal switching costs refer to an individual's skills, and following Burnham and colleagues' (2003) logic, we argue that the four service characteristics interact with switching costs.

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[5] Sometimes the terms "heterogeneity" and "variability" are used synonymously (see, for example, Möller, 2010; Zeithaml, Parasuraman, and Berry 1985). However, given that the term "IHIP" is an abbreviation for intangibility, heterogeneity, inseparability, and perishability, and is widely used in the retail service literature, we use the term "heterogeneity" in our research.

CONCEPTUAL MODEL AND HYPOTHESES

Figure 1 summarizes the conceptual model. At the customer level, we examine the impact of internal and external switching costs on customer loyalty since prior research reported inconsistent findings as to whether and how switching costs affect customer loyalty. At the industry level, we assess the moderating effect of the IHIP characteristics on the switching costs–customer loyalty link. While we argue for an amplifying effect of service characteristics for internal switching costs, such that internal switching costs are more effective in industries higher in these characteristics, we hypothesize a buffering effect for external switching costs, such that external switching costs are less effective in industries higher in these characteristics.

----Insert Figure 1 here---

Customer-Level (Level-1) Effects

Most researchers find a positive direct effect of switching costs on customer loyalty (Pick and Eisend 2013) and justify it with a cost-benefit rationale: the higher the perceived costs of switching, the more likely the customer will stay with their current provider. While that direct effect has received much attention in the literature, less is known about the effects of different types of switching costs on these outcomes (see Nagengast et al. 2014 for a notable exception). To address the impact of internal and external switching costs on loyalty, we draw on prospect theory (Kahneman and Tversky 1979; Tversky and Kahneman 1992), which suggests that individuals have a tendency to avoid losses, making certain outcomes more important during decision-making than more uncertain outcomes. Therefore, an individual is more likely to switch when costs of switching are uncertain. A customer views external switching costs as more certain than internal switching costs because the customer faces an actual loss of additional benefits associated with external switching costs. Internal switching costs are less certain because the individual does not know how much effort will be required to search for an adequate new

provider, or how much learning effort will be necessary with a new service provider. Because external switching costs are associated with a more certain loss of benefits, these switching costs may have a stronger impact on customer loyalty than internal switching costs. Therefore:

H1: *External switching costs have a stronger effect on customer loyalty than internal switching costs.*

Industry-Level (Level-2) Effects

Customers who intend to switch are faced with internal as well as external switching costs. We argue that the IHIP characteristics moderate the switching cost–loyalty link, but the direction of the moderation is contingent upon the type of switching cost.

The amplifying effect of internal switching costs

We propose that the IHIP characteristics have an amplifying effect on the internal switching costs–customer loyalty link (H2) such that the influence of internal switching costs on loyalty is stronger for industries that are high in these characteristics. Our reasoning for this assumption is rooted in information processing theory (Alba and Hutchinson 1987; Rao and Monroe 1988) and the theory of planned behavior (TPB; Ajzen 1985, 1991; Bansal and Taylor 2002).

Service characteristics influence the degree to which individuals gain expertise with one particular retail service. In industries high in service characteristics, the customer is less likely to develop domain expertise that would be helpful for overcoming internal switching costs. The experienced customer may find the information gathered about alternative providers more useful in decision-making and in learning the new providers' routines. The greater the individual's domain expertise and the more familiar the customer is with the service, the less influential internal switching costs become.

In line with this reasoning, the literature offers empirical evidence for an interaction effect between switching costs and expertise (Bell, Auh, and Smalley 2005). Research on individual

decision-making indicates that familiarity leads to superior ability to encode new information and for learning (Johnson and Russo 1986), as well as to pay attention to useful information while ignoring irrelevant information (Alba and Hutchinson 1987; Rao and Monroe 1988).

Similarly, studies using TPB (see, for instance, Notani's (1998) meta-analysis) note an interaction effect between familiarity and perceived behavioral control (PBC), which refers to an individual's "beliefs as to how easy or difficult the performance of the behavior is likely to be" (Ajzen and Madden 1986, p. 457) which is often conceptualized as switching costs. When persons are more unfamiliar with a behavior, they may consider irrelevant influences on their PBC, producing lower confidence in these beliefs (Fazio and Zanna, 1981). Consequently, PBC is more likely to affect an individual for familiar than for unfamiliar behaviors.

As outlined, the service characteristics influence the degree to which individuals can use expertise gained with one service provider to evaluate switching to a different provider. The more *intangible* the industry is, the more difficulties a consumer will have in developing an understanding about the received service and in gaining the expertise necessary to overcome internal switching costs (Kerin et al. 2003). Hence, internal switching costs should have a stronger effect on customer loyalty in industries higher in intangibility.

Zeithaml and Bitner (2003) argue that the more *heterogeneous* the service, the more difficulty the customer will have comparing the current offering to that of alternative providers. Heterogeneity influences the extent to which knowledge concerning one provider is applicable to another (Schmalensee 1982). Consequently, an individual looking for a new service provider is less likely to benefit from the knowledge and skills acquired during their current service provider relationship (Alba and Hutchinson 1987; Solomon and Stuart 2003).

Inseparability can affect the likelihood of learning about a provider's service processes, as well as affecting the choice of criteria to consider with regard to selection of a new service

provider (Bendapudi and Leone 2003; Bitner et al. 1997). Integration of the customer into service provision not only changes the role of the customer, but also complicates the service processes. Thus, with greater inseparability the customer may have more difficulties developing knowledge or skills within a service category, making internal switching costs more relevant.

Finally, the *perishability* of the service can hinder the accumulation of category expertise, due to the need to meet more immediate demands, as well as demands that are time urgent or time sensitive. With higher perishability, a customer may stay longer with a service provider because of greater inability to overcome internal switching costs.

In sum, we argue for an amplifying effect of the four service characteristics such that:

$H2_{a-d}$ *The four service characteristics (a) intangibility (mental/physical), (b) heterogeneity, (c) inseparability, and (d) perishability positively moderate the relationship between internal switching costs and customer loyalty, such that higher levels of these service characteristics are associated with stronger positive relationships between internal switching costs and customer loyalty.*

The buffering effect of external switching costs

While Hypothesis 2 assumes an amplifying effect of IHIP characteristics for internal switching costs, in Hypothesis 3 we suggest a buffering effect for external switching costs. In our study, we argue that service characteristics moderate the link between external switching costs and loyalty, such that external switching costs become less important drivers of loyalty in industries high in the IHIP characteristics.

We find support for this assumption in the customer satisfaction literature (e.g., Oliver 1979; Parasuraman, Zeithaml, and Berry 1985). For instance, Oliver (1979) suggests that satisfaction with an offering is the result of a comparison between an individual's expectations and the outcome. Parasuraman, Zeithaml, and Berry (1985) extend the service quality model by examining five perceptual "gaps," which include differences in customer

expectations/experiences, in addition to discrepancies in service design, communication, management, and delivery. Brown and Swartz (1989) argue that the nature of services necessitates a simultaneous examination of the two parties involved in the relationship (i.e., customer and firm) in order to understand the occurrence of satisfaction with service delivery.

When retail service industries are higher in the IHIP service characteristics, customer expectations of, and experiences with, the service may diverge from the manager's perceptions of the customer's expectations and experiences. We argue that due to higher levels of the IHIP characteristics, customers may have greater problems understanding the benefits of the service offering, and managers may have greater problems assessing and meeting customer expectations. Therefore, the creation, communication, and delivery of external switching costs may be more complicated in industries higher in service characteristics, making external switching costs less relevant in these industries.

The literature on service branding provides further support for these ideas, noting "consumers may not understand the detailed technicalities of the more complex and intangible services brands" (Dall'Olmo and de Chernatony 2000, p. 147; Mittal 1999). Thus, for retail services higher in IHIP, the benefits associated with external switching costs may be less likely to meet customer expectations, thus reducing their effectiveness.

With higher *intangibility* (and thus, more uncertainty), the retailer is confronted with the challenge of developing offerings that meet uncertain customer expectations (Zeithaml 1981). Scholars claim that intangibility leads to greater perceptional differences between customers and managers (Brown and Swartz 1989; Swartz and Brown 1989), making external switching costs less relevant in more intangible switching situations.

For *heterogeneous* services, each service experience is unique, and consistency may be difficult to achieve (Berry 1980; Lewis 1989). The more heterogeneous the customer demands,

the less likely the service manager will be able to develop service offerings that meet the individual customer's expectations. Consequently, external switching costs are less relevant in a switching decision involving a more heterogeneous service.

Inseparability influences the complexity of a provider's processes because the customer must be more involved in the service operations, making it harder for the firm to communicate and ensure their brand promise, as well as to achieve appropriate employee behavior during service provision. Therefore, the likelihood of not meeting customer expectations increases, and customers are less likely to consider the external switching costs in their switching decisions, relative to services higher in inseparability.

Finally, *perishability* should negatively influence the effectiveness of external switching costs because customers may be less certain about the performance of these offerings relative to their future needs. This can make it more difficult for managers to meet these expectations and thus they may have more difficulty developing appropriate service benefits and communicating them adequately to customers (Dall'Olmo and de Chernatony 2000).

To sum up, because service characteristics have the potential to cause greater divergence in customer and manager perceptions of the offering, we argue that external switching costs are less effective in industries higher in IHIP characteristics:

$H3_{a-d}$: *The four service characteristics (a) intangibility (mental/physical), (b) heterogeneity, (c) inseparability, (d) perishability negatively moderate the relationship between external switching costs and customer loyalty such that higher levels of these service characteristics are associated with weaker positive relationships between external switching costs and customer loyalty.*

Covariates

In addition to internal and external switching costs as determinants of customer loyalty, we include customer satisfaction, understood as positive affective state resulting from the post-

purchase evaluation of all aspects of a relationship with a firm (Geyskens, Steenkamp, and Kumar 1999; Taylor and Baker 1994), in our model. We control for additional variables at the customer- and the industry-level as explained in the following chapters.

STUDY 1: META-ANALYTIC REVIEW

Data Collection and Testing Approach

In our meta-study, we test (1) whether internal and external switching costs influence customer loyalty at different strength, and (2) whether the IHIP characteristics moderate these effects. To identify the relevant studies for the meta-analysis, we employed a literature search in several scientific databases, using the terms "switching costs" and "switching barriers" (Ebsco, Proquest, and Elsevier Science Direct). We also reviewed the major journals in the field, as well as the citations of seminal articles.[6] We contacted authors working in this area to request their unpublished research. However, we excluded studies that examined switching costs in a business-to-business context, as well as studies that examined products rather than services.

The main relationship of interest is the link between switching costs and customer loyalty. We use correlations as effect size. When only beta coefficients were reported, we transformed them into correlations using established formulas (Peterson and Brown 2005). In total, we found 45 studies capturing 183 correlations from 48 samples, which results in a combined sample size of N = 33,268. Two researchers independently coded the study characteristics (91% agreement). We coded the type of dependent variable (intention vs. behavior; switching vs. staying), the channel (online vs. offline), the study design (cross-sectional vs. longitudinal), the sample size,

[6] Journals included: Journal of the Academy of Marketing Science, Journal of Business Research, Journal of Consumer Research, Industrial Marketing Management, Journal of Marketing, Journal of Marketing Research, Psychology and Marketing, Journal of Retailing, and Journal of Service Research.

and the reliability measures for all constructs. We used the following definition of the major constructs to code the type of switching costs:[7]

- *Internal switching costs* are rooted in the individual who may lack the expertise, skills, or ability to succeed in switching. Internal switching cost captures those perceived costs associated with the information gathering potentially required prior to changing a service provider, the costs associated with evaluation of a new service provider, the perceived costs associated with the establishment of a new relationship, and the expected costs of learning the routines and procedures of a new provider.
- *External switching costs* are created by the provider (thus, referred to as external), in an effort to create additional benefits for the customer as a way to bind those customers to the firm. These switching costs capture the costs associated with specific benefits now received that could be lost if the customer switches from the current provider, from the previous investments that could be lost if the customer switched, and from customers' emotional discomfort in the case of breaking a bond with a provider-brand and/or with customer contact employees.

Because none of the coded studies report the level of the four service characteristics, we set up a team of 25 expert raters to assess their level for each service industry.[8] The raters were research assistants that have expertise in the field of services marketing. To ensure a common understanding of the service characteristics, the raters also received extensive training. We introduced the four service characteristics to the team by giving them a definition of the construct and describing the construct's conceptualization. For each service characteristic, five experts rated each service industry with regard to the service characteristic, using a 10-point Likert scale (intangibility consists of two sub-dimensions, resulting in five constructs to be evaluated).[9]

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[7] For the studies, we first categorized the operationalizations of switching cost measures based on our definitions, and found that most of these studies operationalize switching costs as either "internal switching costs" (55%), "external switching costs" (35%), or some mixed measure (10%). When the effect sizes used measures with mixed items, we excluded them from our further analyses.

[8] Due to the suggestion of one reviewer, we use in both studies, Study 1 and Study 2, the same expert raters' assessment of the service industry to test the moderating effects of IHIP characteristics.

[9] To evaluate inter-rater reliability, we calculated intra-class correlation (ICC) for each service characteristic: mental intangibility (ICC = .29), physical intangibility (ICC = .26), heterogeneity (ICC = .20), inseparability (ICC = .53), and perishability (ICC = .25). The ICC can be used to assess the consistency of responses among expert raters (Bartko 1976; Kozlowski and Hattrup 1992). As the values can be classified as high compared to other studies that also employ ICC as a criterion (De Jong, De Ruyter, and Lemmink 2004; Homburg and Fürst 2005), averaging the expert responses for each service characteristic is justified. Correlating the ratings with each other, we observe the highest correlation between inseparability and intangibility (mental) with r=.666 and the lowest correlation between heterogeneity and intangibility (physical) with r=.027.

We used two testing approaches for our hypotheses—bivariate analyses and GLS regression. First, we integrated the effect sizes of this research according to established guidelines (Lipsey and Wilson 2001). As suggested by Hunter and Schmidt (2004), we corrected effect sizes for potential artifacts (dichotomization of a continuous dependent variable, dichotomization of a continuous independent variable, range restriction in a dependent dichotomous variable, and range restriction in an independent dichotomous variable). Then we examined the integrated corrected effect sizes stepwise, starting with the mean values across the observed correlations, sampling error weighed correlations (sample size differences), and finally correlations, which were sampling and measurement error (scale reliability differences) adjusted. For each effect size, we present a 95% confidence interval. In the case of significant mean effect sizes, we calculated the Fail safe N—a measure of the robustness of the results—that indicates the number of non-significant and unavailable studies needed to cause the cumulative effect size to become non-significant (Rosenthal 1979).

We tested the homogeneity of our effect size distribution using the Q statistic (Lipsey and Wilson 2001). This test indicates whether differences in the effect sizes are caused by factors other than sampling error, such as moderating variables. Hence, when the Q statistic is significant, a moderator analysis is recommended to identify those study characteristics that affect the level of the effect sizes, as well as to explain the variance in effect sizes. GLS regression analysis is an established procedure for testing whether study characteristics such as context variables (e.g., the IHIP levels of the industry) explain variability in the effect sizes (Geyskens et al. 1998; Raudenbush, Becker, and Kalaian 1988).

Results

For internal switching costs, the bivariate analyses indicate a sample-weighted reliability adjusted *r* of .255 (simple r=.199, sample-weighted r=.229) with .249 for the lower bound of the

confidence interval (CI) and .262 for the upper bound.[10] The calculated effect size is significant at a .01 level, suggesting that internal switching costs are positively related to customer loyalty (Fail safe N=941).[11] We calculated the same statistics for external switching costs and find a sample-weighted reliability adjusted *r* of .344 with p<.01 (simple r=.268, sample-weighted r=.301) and .333 for the lower bound of the confidence interval and .355 for the upper bound (Fail safe N=1,377). Comparing the integrated effect sizes of internal and external switching costs using a z-test, we find that external switching costs display a stronger effect than internal switching costs ($\Delta r = r_{ext} - r_{int} = .344 - .255 = .089$, p<.01), providing support for Hypothesis 1.[12]

With respect to the inconsistencies of the findings from prior research on the switching costs construct, we find the correlations among all collected studies to vary from r=-.13 to r=.73. Therefore, we tested the homogeneity of our effect size distribution using the Q statistic (Lipsey and Wilson 2001). The results indicate that moderating variables, such as service characteristics, may be the cause of differences in the effect sizes (Brown and Peterson 1993).

To examine the impact of the IHIP characteristics on internal (H2) and external switching cost effects (H3), we utilized GLS regression with effect sizes as the dependent variable and study characteristics (level of IHIP) as the independent variables. To ensure that other study characteristics did not confound our findings, we also included the coded type of dependent

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[10] Before we derived the sample weights, we converted the reliability-adjusted *r*'s to variance-stabilizing Fisher's z scores (Rosenthal 1979; Shadish and Haddock 1994). After standard procedures (Shadish and Haddock 1994), we reconverted the z scores back to *r*'s to report the sample-weighted reliability-adjusted *r* and the 95%-CI.

[11] We calculated simple confidence intervals as well as (a) bootstrap confidence intervals (Adams, Gurevitch, and Rosenberg 1997) in addition to (b) bias-corrected confidence interval to ensure that the sample size does not affect the calculated intervals.

[12] Please note that the Q-test of homogeneity is significant for both effects indicating the existence of some variance among effect sizes. Ideally for testing H1, there would be no heterogeneity among effect sizes. Nonetheless, it is accepted in numerous meta studies to test hypotheses when heterogeneity is within a specific range (Geyskens et al. 2006). Regarding the quantitative analysis of correlations, Cortina (2003), who examined 1,647 meta-analyses, suggests that standard deviations of the corrected effect sizes between .05 and .265 were clearly within a grey zone for which analyses can proceed with a note of caution (SD r_{int}=.17, SD r_{ext}=.18).

variable (switching vs. staying), channel (online vs. offline), and study design (cross-sectional vs. longitudinal) as control variables.[13]

With respect to internal switching costs, we find evidence for the amplifying effect for physical intangibility (β=.033, $p<.10$), heterogeneity (β=.075, $p<.05$), and perishability of the service (β=.077, $p<.10$), providing support for H2a, H2b, and H2d. None of the tested study characteristics affect the effect sizes. Testing a reduced model without covariates, we also find an amplifying effect for mental intangibility (β=.061, $p<.01$). In total, the GLS regression explains 21% of the variance in the effect sizes.

With respect to external switching costs, we find a buffering effect for physical intangibility (β=-.248, $p<.01$), heterogeneity (β=-.614, $p<.01$), inseparability (β=-.147, $p<.05$), and perishability of the service (β=-.799, $p<.05$), providing support for H3a-d. Type of dependent variable (β=-.049, $p>.05$), channel (β=-.899, $p<.05$), and study design (β=.060, $p>.05$) were also significant. This indicates that the effect sizes were stronger for staying than for switching measures, offline than online channels, and longitudinal than cross-sectional research designs. The GLS regression explains 44% of the variance in the effect sizes. When calculating the mean level of service characteristics across all characteristics, and running a GLS regression with this overall IHIP measure and covariates, we find further support for the amplifying effect for internal switching costs (H2: β=.054, $p<.01$) and the buffering effect for external switching costs (H3: β=-.075, $p<.01$).

Our meta-analysis provides initial evidence for a moderating effect of service characteristics on the switching costs–loyalty link. Particularly, we find an amplifying effect for internal switching costs and a buffering effect for external switching costs. Since external

[13] Because studies with behavioral loyalty as a dependent variable are scarce, the matched data set does not include a single effect with behavior as dependent variable, and we did not control for this study characteristic.

switching costs were of greater importance for the customer's decision to stay with a provider than internal switching costs (H1), the IHIP characteristics have the potential to be more harmful for the effectiveness of external switching costs than for internal switching costs.

STUDY 2: MULTILEVEL ANALYSIS

Data Collection and Sample

In the second study, we include a wide range of industries using a classification scheme developed by the United Nations (CPC Ver. 2). This classification captures 4,408 different products and services. The classification itself consists of five levels with 125 classes of services on the third level. Consistent with our first study, we excluded 74 industries because those services (a) are offered to business customers exclusively (which is outside the consumer retail scope of this research), (b) are largely not available for potential customers in the specific country that we examine, or (c) the constructs of interest did not pass our pre-testing of the questionnaire (e.g., the wording of the measures for the central constructs was not appropriate). An overview of the final set of 51 (retail) service industries and their corresponding CPC codes appears in Table 1. While five service industries represent retailing in a narrow sense (wholesale trade services on a fee or contract basis, non-specialized store retail trade services, specialized store retail trade services, mail order or Internet retail trade services, retail trade services on a fee or contract basis), the majority of industries represent broader retail service industries (e.g., financial services, professional services).[14]

----Insert Table 1 here---

We collected between 23 and 50 questionnaires on customer satisfaction, loyalty, and perceived switching costs for each industry via personal face-to-face interviews led by trained

[14] Particularly, many services of the industries understood as service retailing in a broad sense are often offered in malls and shopping centres to customers or by retailers to generate additional sales. About 73 percent of the CPC industries have a strong connection to retailing and have the potential to be offered by larger retailers.

interviewers. The interviewers contacted the participants in the city centre of a Midwestern German city to ensure a representative sample in terms of age, income, and gender. Each participant only responded relative to one company they used regularly in one particular industry. Our analyses were conducted at the customer and not at the firm-level. The questionnaires started with some filter questions to ensure that respondents were qualified to participate in the survey. Respondents were only interviewed when they confirmed that they were regular customers of a specific service provider from the industry they were assigned to.

Data were collected in a two week period (N = 1,694 customers). The participants had an average monthly income of 1,535 € (SD = 891.2) (national average: 1,870 €), with 52% females and 48% males in the sample (national average: 51% females and 49% males). Age of the participants was 37% between 15 and 25 years (national average: 14%), 43% between 25 and 45 years (34%), 17% between 45 and 65 years (30%), and 3% older than 65 years (22%). Although the percentage of elderly people was below the national average, the sample was fairly representative in terms of household income and gender.

Measures and Measurement Properties

Conceptualizations and items for measuring the constructs were adapted based on prior research in the loyalty literature, using multi-item 5-point Likert scales. Customer satisfaction is the positive affective state resulting from the post-purchase evaluation of all aspects of a relationship with a firm (Geyskens, Steenkamp, and Kumar 1999). We use a four-item overall satisfaction scale to assess respondents' general satisfaction, confirmation of expectations, and distance from their hypothetical ideal service provider (Fornell 1992). We adopt a scale of customer loyalty from Zeithaml, Berry, and Parasuraman (1996) and Hennig-Thurau, Gwinner, and Gremler (2002) that contains four items comprising both behavioral and attitudinal

components. Switching costs are measured by adapting scales from Jones, Mothersbaugh, and Beatty (2000, 2002) and Burnham, Frels, and Mahajan (2003).

----Insert Tables 2 & 3 here---

Coefficient alpha is larger than .7 for all examined constructs, the threshold generally proposed in the literature (Nunnally 1978). Also, composite reliabilities (CR) are high (.82-.93). Discriminant validity is indicated based on the criterion proposed by Fornell and Larcker (1981). In sum, the reliability and validity of the constructs in this study are acceptable.

Because the literature recommends a parsimonious structure of switching costs when examining the interrelationship with other constructs (Kumar, Stern, and Achrol 1992), we derived composite measures for each switching construct and examined them using a varimax-rotated exploratory factor analysis. Results support the two-factor structure of switching costs (MSA = .84; variance explained = .60). The two factors reflect internal and external switching costs. As suggested by Jones, Mothersbaugh, and Beatty (2002), all dimensions referring to learning and the consumer's expertise show high factor loadings on internal switching costs and all dimensions addressing benefits or bonds they do not want to lose show high factor loadings on external switching. We tested the two-factor model using a second-order CFA: CFI = .91, TLI = .90, RMSEA = .06, SRMR = .07. Again, the tested criteria, coefficient alpha, composite reliability, and discriminant validity (r = .55) were met. Empirically, the suggested two-dimensional conceptualization of switching costs holds well.

Expert ratings were applied to the measurement of service characteristics. Rather than evaluating service characteristics by the same individual who participated in the main survey, expert ratings avoid potential problems of common method bias (Podsakoff et al. 2003) and are therefore more reliable. We introduced the four service characteristics to 25 service experts. Five marketing experts–the same as in Study 1–rated each service industry with regard to the existence

of each service characteristic, using a ten-point Likert scale. Given that intangibility includes physical and mental intangibility, these two characteristics were evaluated separately.

Analysis Overview

The data structure underlying study 2 comprises two levels: customers (Level 1) nested in service industries (Level 2). To handle this multilevel data, the use of hierarchical linear models (HLM) is recommended (de Leeuw and Kreft 1986; Hox 1995; Longford 1993). It addresses the nesting of micro- and macro-level phenomena (Kozlowski and Klein 2000) and explicitly recognizes that individuals belong to particular groups (service industry) and that they may be more similar to individuals of the same group than to individuals in other groups. As a result, they may not provide independent observations (Hofmann 1997). HLM also takes macro-level effects into consideration, which may occur through interaction with micro-level elements (Kozlowski and Klein 2000). In our research, we examined 1,694 customers nested in 51 specific service industries. Analyses were conducted using the HLM software (Version 6.06) with grand-mean centering for the predictors. In addition to customer loyalty, switching costs, and service characteristics, the model includes customer satisfaction as a control variable (Jones, Mothersbaugh, and Beatty 2000). We used a random intercept and random slope model since it allows for generalizing beyond the particular groups in the study, i.e., we examined customers from 51 service industries companies, with the goal of generalizing to a larger universe of service industries in examining the means (intercepts) or the level 1 relationships (slopes).

Results

Before estimating the two-level HLM model, we first test whether there is sufficient variance in the dependent variable (i.e., customer loyalty) between the groups (51 service industries). Examining the *Intra-Class Correlation* (ICC) (Raudenbush and Bryk 2002), we find that 10% (= *ICC*) of the variance of the customer loyalty construct is between the 51 classes.

Hence, HLM is used for the data analysis (Muthén and Satorra 1995).[15] Results of the hypotheses tests appear in Tables 4 and 5.[16]

----Insert Tables 4 & 5 here---

We first averaged the four service characteristics (IHIP) and then examined their combined moderating impact on the links of interest (Table 4). Results reveal a clear and consistent picture when assessing the drivers of customer loyalty. Examining Level 1 effects (see Model 1), customer satisfaction (β=.49, $p<.01$), external switching costs (β=.44, $p<.01$), and internal switching costs (β=.07, $p<.05$) influence customer loyalty directly. Differences in the coefficients for the two switching costs are significant ($p<.01$), lending support to H1. Moreover, service characteristics have an effect that is marginally significant and negative (β=-.07, $p<.1$), which is also reflected in the marginally significant improvement of the model fit.[17]

Regarding the moderating effect of IHIP characteristics on the link between internal switching costs and customer loyalty (Model 3), a positive interaction effect was found (γ=.08, $p<.05$), meaning that for services higher in overall IHIP service characteristics, internal switching costs become more important. Hence, the analysis supports the amplifying effect suggested in H2a–H2d. Further, we find a buffering effect of the IHIP characteristics on the link between external switching costs and customer loyalty (γ=-.08, $p<.01$). This effect indicates that for

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[15] In addition, we calculated the mean levels of our variables of interest by industry, indicating their variance across industries (internal switching costs: M= 2.90, SD=.40; external switching costs: M=2.50, SD=.36; satisfaction: M=3.67, SD=.28; loyalty: M=3.14; SD=.33).

[16] We tested potential heteroscedasticity in the data by examining scatterplots of the residuals with no significant findings.

[17] We ran a model including age, gender, education, and involvement as control variables. While age, gender, and income were insignificant, involvement displayed a significant positive effect on customer loyalty (β=.05, $p < .05$). The main effects of satisfaction, internal and external switching costs did not change similar to the direct and moderating effects of the IHIP characteristics. We also collected further industry data on the total sales of an industry, investments, gross surplus, #employees, #firms, sales per employee, sales per firm, gross margin, gross surplus per employee, and gross surplus per firm. None of these industry variables was significant. Finally, we examined whether switching costs impact customer satisfaction and find low to moderate correlations.

services higher in service characteristics, external switching costs are less important, supporting H3a – H3d. Inclusion of the cross-level interaction effects also improves the model fit.[18]

To provide more nuanced recommendations about the use of switching costs as a retention strategy, we separately test each service characteristic on the links of interest (Table 5).[19] Across all tested models, we find support for mental intangibility and perishability directly affecting customer loyalty. Moreover, we find strong evidence in Models 4 and 5 for the buffering effect of mental intangibility (γ=-.05, p<.05), heterogeneity (γ=-.03, p<.10), inseparability (γ=-.03, p<.05), and perishability (γ=-.04, p<.10) on the link between external switching costs and customer loyalty. Hence, our analysis largely supports H3a–d. With respect to the amplifying effects of the characteristics on the internal switching costs–customer loyalty link, the analysis supports mental intangibility (γ=.07, p<.05) and perishability (γ=.05, p<.10), providing support for H3a and H3d but not for H3b and H3c. [20]

SUMMARY

Summary of the Findings

Our study contributes to the literature by offering a better understanding of the effectiveness of switching costs as a retention strategy. Through a comprehensive meta-analysis with more than 33,000 customers and a large-scale cross-industry study capturing 51 service industries and 1,694 customers, we show that perceived switching costs indeed matter for customer loyalty but that their effectiveness depends on the type of switching costs and the service industry (Table 6).

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[18] We also tested further services classification such as Lovelock's approach (1983, 2004) regarding its interrelationship with switching costs and the differentiation between rental and access services (Lovelock and Gummesson 2004). Substantive results remain unchanged when using alternative classification approaches.

[19] We also tested a model which included all effects simultaneously. The results support all level 1 effects. We also find support for 9 of 10 moderating effects on level 2 showing the same effects in the separated model as in the full model. Only the perishability x external SC effect is insignificant in the full model.

[20] We tested the moderating effect of IHIPs on the satisfaction–loyalty link. We did not find a moderation effect of mental intangibility (β=-.001, p>.10), physical intangibility (β=.005, p>.10), and inseparability (β=.001, p>.10). Instead, heterogeneity (β=-.026, p<.10) and perishability (β=-.027, <.10) moderated the satisfaction–loyalty link.

----Insert Table 6 here---

Contribution to the Literature and Managerial Implications

Our study supports prior research that suggests that switching costs represent a viable strategy for retaining customers in addition to satisfaction-oriented retention strategies. Our findings indicate a stronger effect of switching costs on customer loyalty compared to the findings of Pick and Eisend (2013).

Our research differentiates between internal and external switching costs. While internal switching costs, such as search, learning, and risk costs, are primarily rooted in an individual customer's expertise or skills, external switching costs are created by the provider, and include potential financial losses, as well as potential discomfort with breaking relationships with employees and with the brand. Further, internal switching costs involve greater uncertainty than external switching costs. Both studies indicate that the two types of switching costs differ in their relevance for binding customers. We find that the average effect of external switching costs on customer loyalty is stronger than that of internal switching costs. Apparently, individuals have a tendency to avoid certain losses.

The literature suggests that internal switching costs are generally a negative source of constraint, forcing the customer to stay with the company (see Jones et al. 2007). Because procedural switching costs are positively correlated with important relationship outcomes such as customer satisfaction ($r = .13$, $p < .01$), trust ($r = .20$, $p < .01$) and word-of-mouth intention ($r = .13$, $p < .01$),[21] perhaps customers do not feel forced to remain with the firm. Instead, customers may attribute these perceived switching costs to their own inability to switch. In our studies, both internal and external switching costs interact with the IHIP service characteristics. While there is

[21] We used established measures for trust (Morgan and Hunt 1994) and word-of-mouth intention (Lam et al. 2004). Measurement properties were good. Similarly, we find that external switching costs display positive correlations with satisfaction ($r=.41$, $p<.01$), trust ($r= .49$, $p<.01$), and word-of-mouth intention ($r=.48$, $p<.01$).

an amplifying effect from internal switching costs, there is a buffering effect due to external switching costs, suggesting a difference in the effects of these constructs.

Additionally, our study provides empirical evidence that differences exist in the working mechanisms of different switching costs (Jones et al. 2007) and that these different switching costs also vary in their relevance across industries (Burnham, Frels, and Mahajan. 2001; Jones, Mothersbaugh, and Beatty 2002). We find that internal switching costs vary in their relevance across service industries, noting that IHIP characteristics may determine whether customers can effectively use their expertise to help in overcoming anticipated internal switching costs. Literature suggests that further ways of learning exist—such as observation. Hence, a further service characteristic worth examining is the observability of other customer during service provision. We also find that higher levels of IHIP characteristics may produce a perceptual gap between customers and firms, thus influencing the effectiveness of external switching costs. It would be interesting to examine which efforts of a firm are most effective in reducing these perceptual gaps and whether and how they can increase the effectiveness of switching costs.

With respect to the service characteristics, we make two interesting observations. First, the correlation between mental and physical intangibility is just r=.415 and in the HLM model, mental and physical intangibility show differential effects. It seems that for learning and the occurrence of perceptual gaps, mental intangibility is of greater importance than physical intangibility. Hence, managers interested in the effects of switching costs should differentiate between these characteristics. Second, while inseparability appears to produce perceptual gaps between managers and customers, this service characteristic does not appear to help the customer become more familiar with the service and therefore does not affect the internal switching costs-customer loyalty link. Future research should differentiate between active and passive

involvement of the customer relative to the service process since active involvement may stimulate learning.

For retail service managers, our findings offer both good and bad news. The good news is that managers can still rely on switching costs as a binding strategy in these industries. The bad news is that this effectiveness varies, and firms have to examine the characteristics of the offered service in order to understand which type of switching cost is most effective (see Figure 2). For instance, managers of a mall could develop different retention strategies for banking services compared to hairdressing and beauty services. For each of these services it has to be decided whether internal switching costs or external switching costs might be employed as the major retention strategy (Evanschitzky et al. 2012).

----Insert Figure 2 here---

Limitations and Research Issues

The current study sheds new light on switching costs and their effects on loyalty across different service industries. However, unanswered issues offer avenues for further research. First, this study examined a broad range of retail service industries, describing them with an established framework. The IHIP characteristics represent a strong conceptual relationship to perceived switching costs; however, the work on intangibility by Laroche, Bergeron, and Goutaland (2001) introduces another facet of intangibility, "generality of the service," which describes the abstractness of the service offering, which could be examined in future research.

Second, we suggest developing scales for assessing the customer's perception of heterogeneity, inseparability, and perishability. Although our study employed an established approach for evaluating service industries, customers might evaluate these characteristics differently than the experts.

Third, using the IHIP characteristics, we found an important industry-level moderator of the switching costs–customer loyalty link. Additional moderators at the individual and/or relational levels (for instance, an individual's prior switching experience) could also provide useful avenues for future research.

Fourth, we conducted our multi-level study with 1,694 customers from 51 service industries in only one country and tested our hypotheses using a meta-study with data from numerous countries. Nonetheless, it is reasonable to assume that a country's service climate influences the findings, so replication of our study using different countries with different service climates is encouraged.

Fifth, our findings are generalizable across 51 retail service industries relevant for end-customers; future research should investigate other service industries (e.g., business-to-business customers) to generalize our findings.

Sixth, our conceptualization of external switching costs includes the potential loss of additional benefits when switching service providers, as suggested by Jones, Mothersbaugh, and Beatty (2007). This conceptualization does not include fines, fees, or penalties for switching, which would be interesting to examine in further research.

Finally, future studies could examine whether the positive effect of switching costs on customer loyalty are replicable when measuring actual purchase behavior, rather than purchase intentions only. A combination of attitudinal survey data with observable purchase behavior would allow researchers to gain a better understanding of the relevance of different types of switching costs for customer behavior.

REFERENCES

Adams, Dean C., Jessica Gurevitch, and Michael S. Rosenberg (1997), "Resampling Tests for Meta-Analysis of Ecological Data," *Ecology*, 78, 1277–83.

Ajzen, Icek (1985), "From Intentions to Action: A Theory of Planned Behavior" in J. Kuhl and J. Beckman (eds.), *Action Control: From Cognitions to Behaviors*, New York: Springer, 11–39.

Ajzen, Icek (1991), "The Theory of Planned Behaviour," *Organizational Behavior and Human Decision Processes*, 50 (2), 179–211.

Ajzen, Icek and Thomas J. Madden (1986), "Prediction of Goal Directed Behavior: Attitudes, Intentions and Perceived Behavioral Control," *Journal of Experimental Social Psychology*, 22 (5), 453–74.

Alba, Joseph W., and J. Wesley Hutchinson (1987), "Dimensions of Consumer Expertise," *Journal of Consumer Research*, 13 (4), 411–54.

Andreassen, Tor Wallin, and Bodil Lindestad (1998), "Customer Loyalty and Complex Services: The Impact of Corporate Image on Quality, Customer Satisfaction and Loyalty for Customers with Varying Degrees of Service Expertise," *International Journal of Service Industry Management*, 9 (1), 7–23.

Bansal, Harvir and Shirley Taylor, (2002) "Investigating Interactive Effects in the Theory of Planned Behavior in a Service-Provider Switching Context," *Psychology & Marketing*, 19 (5), 407–25.

Bartko, John (1976), "On Various Intraclass Correlation Reliability Coefficients," *Psychological Bulletin*, 83 (5), 762–65.

Bateson, John E. G. (1979), "Why We Need Service Marketing," in Conceptual and Theoretical Developments in Marketing, O. C. Ferrell, S. W. Brown, and C. W. Lamb, eds. Chicago: American Marketing Association, 131–46.

Bell, Simon J., Seigyoung Auh, and Karen Smalley (2005), "Customer Relationship Dynamics: Service Quality and Customer Loyalty in the Context of Varying Levels of Customer Expertise and Switching Costs," *Journal of the Academy of Marketing Science*, 33 (2), 169−83.

Bendapudi, Neeli and Robert P. Leone (2003), "Psychological Implications of Customer Participation in Co-Production," *Journal of Marketing*, 67 (1), 14–28.

Berry, Leonard L. (1980), "Service Marketing is Different," *Business*, 30 (3), 24–9.

Bitner, Mary Jo, William Faranda, Amy Hubbert, and Valarie Zeithaml (1997), "Customer Contributions and Roles in Service Delivery," *International Journal of Service Industry Management*, 8 (3), 193–205.

Brown, Stephen W., and Teresa A. Swartz (1989), "A Gap Analysis of Professional Service Quality," *Journal of Marketing*, 53 (2), 92–8.

Brown, Steven P. and Robert A. Peterson (1993), "Antecedents and Consequences of Salesperson Job Satisfaction: Meta-Analysis and Assessment of Causal Effects," *Journal of Marketing Research*, 30 (1), 63–77.

Burnham, Thomas, Judy Frels, and Vijay Mahajan (2003), "Consumer Switching Costs: A Typology, Antecedents, and Consequences," *Journal of the Academy of Marketing Science*, 31 (2), 109–26.

Cortina, Jose M. (2003), "Apples and Oranges (and Pears, Oh My!): The Search for Moderators in Meta-Analysis," *Organizational Research Methods*, 6 (4), 415–39.

Dall'Olmo Riley, Francesca, and Lesile De Chernatony (2000), "The Service Brand as a Relationship Builder," *British Journal of Management*, 11 (2), 137–50.

De Jong, Ad, Ko de Ruyter, and Jos Lemmink (2004), "Antecedents and Consequences of the Service Climate in Boundary-Spanning Self-Managing Service Teams," *Journal of Marketing*, 68 (2), 18–35.

De Leeuw, Jan and Ita Kreft (1986), "Random Coefficient Models," *Journal of Educational Statistics*, 11 (1), 55–85.

Dwyer, F. Robert, and Paul H. Schurr (1987), "Developing Buyer-seller Relationships," *Journal of Marketing*, 51 (2), 11–27.

Evanschitzky, Heiner, B. Ramaseshan, David M. Woisetschläger, Verena Richelsen, Markus Blut, and Christof Backhaus (2012), "Consequences of Customer Loyalty to the Loyalty Program and to the Company," met*Journal of the Academy of Marketing Science*, 40(5), 625-638.

Fazio, Russell H. and Mark P. Zanna (1981), "Direct Experience and Attitude-Behavior Consistency," *Advances in Experimental Social Psychology*, 14, 161–202.

Fornell, Claes (1992), "A National Customer Satisfaction Barometer: The Swedish Experience," *Journal of Marketing*, 56 (1), 6–21.

Fornell, Claes and David Larcker (1981), "Evaluating Structural Equation Models with Unobservable Variables and Measurement Error," *Journal of Marketing Research*, 18 (1), 39–50.

Geyskens, Inge, Jan-Benedict Steenkamp, and Nirmayla Kumar (1998), "Generalizations about Trust in Marketing Channel Relationships using Meta-Analysis," *International Journal of Research in Marketing*, 15 (3), 223–48.

Geyskens, Inge, Jan-Benedict Steenkamp, and Nirmayla Kumar (1999), "A Meta-Analysis of Satisfaction in Marketing Channel Relationships," *Journal of Marketing Research*, 36 (2), 223–38.

Geyskens, Inge, Jan-Benedict Steenkamp, and Nirmayla Kumar (2006), "Make, Buy, or Ally: A Transaction Cost Theory Meta-Analysis," *Academy of Management Journal*, 49 (3), 519–43.

Heide, Jan B. and Allen M. Weiss (1995), "Vendor consideration and switching behavior for buyers in high-technology markets," *Journal of Marketing*, 59 (3), 30–43.

Hennig-Thurau, Thorsten, Kevin Gwinner, and Dwayne Gremler (2002), "Understanding Relationship Marketing Outcomes: An Integration of Relational Benefits and Relationship Quality," *Journal of Service Research*, 4 (3), 230–47.

Hofmann, David (1997), "An Overview of the Logic and Rationale of Hierarchical Linear Models," *Journal of Management*, 23 (6), 723–44.

Homburg, Christian and Andreas Fürst (2005), "How Organizational Complaint Handling Drives Customer Loyalty: An Analysis of the Mechanistic and the Organic Approach," *Journal of Marketing*, 69 (3), 95–114.

Hox, Joop, (1995), *Applied Multilevel Analysis*. Amsterdam: TT-Publikaties.

Hunter, John E., and Frank L. Schmidt (2004), *Methods of Meta-Analysis*, Newbury Park, CA: Sage.

Jap, Sandy D. and Shankar Ganesan (2000), "Control Mechanisms and the Relationship Life Cycle: Implications for Safeguarding Specific Investments and Developing Commitment," *Journal of Marketing Research*, 37 (2), 227–45.

Johnson, Eric J. and J. Edward Russo (1984), "Product Familiarity and Learning New Information," *Journal of Consumer Research*, 11 (1), 542–50.

Jones, Michael A., David L. Mothersbaugh, and Sharon E. Beatty (2000), "Switching Barriers and Repurchase Intentions in Services," *Journal of Retailing*, 76 (2), 259–74.

Jones, Michael A., David L. Mothersbaugh, and Sharon E. Beatty (2002), "Why Customers Stay: Measuring the Underlying Dimensions of Services Switching Costs and Managing their Differential Strategic Outcomes," *Journal of Business Research*, 55 (6), 441–51.

Jones, Michael A., Kristy E. Reynolds, David L. Mothersbaugh, and Sharon E. Beatty (2007), "The Positive and Negative Effects of Switching Costs on Relational Outcomes," *Journal of Service Research*, 9 (4), 335–55.

Kahneman, Daniel and Amos Tversky (1979), "Prospect Theory: An Analysis of Decision under Risk," *Econometrica*, 47 (2), 263–91.

Kerin, Roger, E. N. Berkowitz, Steven Hartley, and William Rudelius (2003), *Marketing*, 7th ed., New York, NY: McGraw-Hill.

Kozlowski, Steve, and Keith Hattrup (1992), "A Disagreement about Within-Group Agreement: Disentangling Issues of Consistency versus Consensus," *Journal of Applied Psychology*, 77 (2), 161–67.

Kozlowski, Steve and Katherine J. Klein (2000), "A Multilevel Approach to Theory and Research, in Organizations: Contextual, Temporal, and Emergent Processes," in *Multilevel Theory, Research and Methods in Organizations, Foundations Extensions, and New Directions*, K. J. Klein and S. W. J. Kozlowski (eds.), San Francisco, CA: Jossey-Bass, 3–90.

Kumar, Nirmalya, Leonard Stern, and Ravi Achrol (1992), "Assessing Reseller Performance from the Perspective of the Supplier," *Journal of Marketing Research*, 29 (2), 238–53.

Lam, Shin Yun, Venkatesh Shankar, Krishna Erramilli, and Bvsan Murthy (2004), "Customer Value, Satisfaction, Loyalty, and Switching Costs: An Illustration from a Business-to-Business Service Context," *Journal of the Academy of Marketing Science*, 32 (3), 293–311.

Laroche, Michel, Jasmine Bergeron, and Christine Goutaland (2001), "A Three-dimensional Scale of Intangibility," *Journal of Service Research*, 4 (1), 20–41.

Lewis, Barbara R. (1989), "Consumer Care in Service Organizations," *Marketing Intelligence and Planning*, 7 (5/6): 18–22.

Lipsey, Mark and David Wilson (2001). *Practical Meta-Analysis*. Thousand Oaks, CA: Sage.

Longford, Nicholas (1993), *Random Coefficient Models*, New York, NY: Oxford University Press.

Lovelock, Christopher (1983), "Classifying Services to Gain Strategic Marketing Insights," *Journal of Marketing*, 47 (3), 9–20.

Lovelock, Christopher and Evert Gummesson (2004), "Whither Services Marketing? In Search of a New Paradigm and Fresh Perspectives," *Journal of Service Research*, 7 (1), 20–41.

Lovelock, Christopher and Jochen Wirtz (2001). *Services Marketing: People, Technology, Strategy*. 5th ed., Upper Saddle River, NJ: Prentice Hall.

Mittal, Banwari (1999), "Determinants of Vendor Patronage in Business Service Markets: An Integrative Model," *Journal of Business-to-Business Marketing*, 6(4), 1–32.

Möller, Sabine (2010), "Characteristics of Services – A new Approach uncovers their Value," *Journal of Services Marketing*, 24 (5), 359–68.

Morgan, Robert M. and Shelby D. Hunt (1994), "The Commitment-Trust Theory of Relationship Marketing," *Journal of Marketing*, 58 (3), 20–38.

Muthén, Bengt and Albert Satorra (1995), "Complex Sample Data in Structural Equation Modeling," *Sociological Methodology*, 25, 267–316.

Nagengast, Liane, Heiner Evanschitzky, Markus Blut, and Thomas Rudolph (2014), "New Insights in the Moderating Effect of Switching Costs on the Satisfaction-Loyalty Link," *Journal of Retailing*, forthcoming.

Notani, Arti (1998), "Moderators of Perceived Behavioral Control's Productiveness in the Theory of Planned Behavior: A Meta-analysis," *Journal of Consumer Psychology*, 7 (3), 247–71.

Nunnally, Jum C. (1978), *Psychometric Theory*, New York, NY: McGraw-Hill.

Oliver, Richard L. (1979), "Product Dissatisfaction as a Function of Prior Expectation and Subsequent Disconfirmation: New Evidence," in: *New Dimensions of Consumer Satisfaction and Complaining Behavior*, Ralph L. Day and H. Keith Hunt, eds. Bloomington: Indiana University, 66–71.

Oliver, Richard L. (1993), "Cognitive, Affective and Attributes of the Satisfaction Response," *Journal of Consumer Research*, 20 (3), 418-30.

Parasuraman, A., Valarie A. Zeithaml, and Leonard L. Berry (1985), "A Conceptual Model of Service Quality and Its Implications for Future Research," *Journal of Marketing*, 49 (4), 41–50.

Peterson, Robert A. and Steven P. Brown (2005), "On the Use of Beta Coefficients in Meta-Analysis," *Journal of Applied Psychology*, 90 (1), 175−81.

Pick, Doreén and Martin Eisend (2013), "Buyers' Perceived Switching Costs and Switching: A Meta-Analytic Assessment of Their Antecedents," *Journal of the Academy of Marketing Science*, DOI 10.1007/s11747-013-0349-2.

Pine, Joseph II (1993), Mass Customization: The New Frontier, in: *Business Competition*, Boston, MA: Harvard Business School Press.

Ping, Robert A. (1993), "The Effects of Satisfaction and Structural Constraints on Retailer Exiting, Voice, Loyalty, Opportunism, and Neglect," *Journal of Retailing*, 69 (3), 320–352.

Podsakoff, Phillip M., Scott B. MacKenzie, Jeong-Yeon Lee, and Phillip Podsakoff (2003), "Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies," *Journal of Applied Psychology*, 88 (5), 879–903.

Pride, William M. and O. C. Ferrell (2003), *Marketing: Concepts and Strategies*, 12th ed. Boston, MA: Houghton Mifflin.

Rao, Akshay R. and Kent B. Monroe (1988), "The Moderating Effect of Prior Knowledge on Cue Utilization in Product Evaluations," *Journal of Consumer Research*, 15 (2), 253–64.

Raudenbush, Stephen W. and Anthony S. Bryk (2002), *Hierarchical Linear Models: Applications and Data Analysis Methods*. 2nd ed., Thousand Oaks, CA: Sage.

"Retail," http://en.wikipedia.org/wiki/Retail, acquired 11/14/2013.

"Retail Banking," http://en.wikipedia.org/wiki/Retail_banking, acquired 111/42013.

Rosenthal, Robert (1979), "The 'File-Drawer Problem' and Tolerance for Null Results," *Psychological Bulletin*, 86 (3), 638–41.

Schmalensee, Richard (1982), "Production Differentiation Advantages of Pioneering Brands," *American Economic Review*, 72 (3), 349–365.

Shadish, William R. and Keith C. Haddock (1994), "Combining Estimates of Effect Size," in *The Handbook of Research Synthesis*, H. Cooper and L. V. Hedges (eds.), New York, NY: Russell Sage Foundation, 261–84.

Shafti, Farhad, Robert van der Meer, and Terry Williams (2007), "An Empirical Approach to Service Classification for Productivity Management Studies," *The Service Industries Journal*, 27 (6), 709–30.

Shostack, G. Lynn (1977), "Breaking Free from Product Marketing," *Journal of Marketing*, 44 (2), 73–80.

Solomon, Michael R. and EInora W. Stuart (2003), *Marketing: Real People, Real Choices*, Upper Saddle River, NJ: Prentice Hall.

Swartz, Teresa A. and Stephen W. Brown (1989), "Consumer and Provider Expectations and Experiences in Evaluating Professional Service Quality," *Journal of the Academy of Marketing Science*, 17 (2), 189–95.

Taylor, Steven A. and Thomas L. Baker (1994), "An Assessment of the Relationship between Service Quality and Customer Satisfaction in the Formation of Consumers' Purchase Intentions," *Journal of Retailing*, 70 (2), 163–78.

"The Financial Service Industry in the United States," http://selectusa.commerce.gov/industry-snapshots/financial-services-industry-united-states, acquired 11/14/2013

Tversky, Amos and Daniel Kahneman (1979), "Advances in Prospect Theory: Cumulative Representation of Uncertainty," *Journal of Risk and Uncertainty*, 5 (4), 297–32.

Zeithaml, Valerie A. (1981), "How Consumer Evaluation Processes Differ Between Goods and Services," in *Marketing of Services*, J. H. Donnelly and W. R. George (eds.), Chicago, IL: American Marketing Association, 186–90.

Zeithaml, Valerie A. and Mary J. Bitner (2003), *Services Marketing: Integrating Customer Focus across the Firm,* 3rd ed., New York, NY: McGraw-Hill.

Zeithaml, Valerie A., Leonard L. Berry, and A. Parasuraman (1996), "The Behavioral Consequences of Service Quality," *Journal of Marketing*, 60 (2), 31–46.

Zeithaml, Valerie A., A. Parasuraman, and Leonard L. Berry (1985), "Problems and Strategies in Services Marketing," *Journal of Marketing*, 49 (2), 33–46.

TABLE 1

SAMPLE DESCRIPTION: EXAMINED SERVICE INDUSTRIES

CPC	Industry Description	CPC	Industry Description
545	Special trade construction services	838	Photography services and photographic processing services
546	Installation services	841	Telephony and other telecommunications services
612	Wholesale trade services on a fee or contract basis	842	Internet telecommunications services
621	Non-specialized store retail trade services	843	On-line content
622	Specialized store retail trade services	845	Library and archive services
623	Mail order or Internet retail trade services	846	Broadcasting, programming, and program distribution services
625	Retail trade services on a fee or contract basis	852	Investigation and security services
631	Accommodation services for visitors	853	Cleaning services
632	Other accommodation services for visitors	855	Travel arrangement, tour operator, and related services
633	Food serving services	871	Maintenance and repair services of fabricated metal products, machinery, and equipment
641	Local transport and sightseeing transportation services of passengers	872	Repair services of other goods
642	Long-distance transport services of passengers	873	Installation services (other than construction)
651	Land transport services of freight	891	Publishing, printing, and reproduction services
6743	Parking lot services	913	Administrative services related to compulsory social security schemes
6744	Towing services for commercial and private vehicles	921	Pre-primary education services
6811	Postal services	931	Human health services
6812	Courier services	934	Social services without accommodation for the elderly and disabled
691	Electricity and gas distribution (on own account)	943	Waste treatment and disposal services
692	Water distribution (on own account)	962	Performing arts and other live entertainment event presentation and promotion services
711	Financial services, except investment banking, insurance services, and pension services	965	Sports and recreational sports services
713	Insurance and pension services (excluding reinsurance services), except compulsory social security services	969	Other amusement and recreational services
721	Real estate services involving owned or leased property	971	Washing, cleaning and dyeing services
731	Leasing or rental services concerning machinery and equipment without operator	972	Beauty and physical well-being services
821	Legal services	9721	Hairdresser and barber services
832	Architectural services, urban and land planning, and landscape architectural services	980	Domestic services
835	Veterinary services		

TABLE 2

RELIABILITY AND VALIDITY OF THE CONSTRUCTS

Scale/Item	Alpha	CR	AVE
Customer Satisfaction (Fornell 1992)	**.91**	**.94**	**.80**
I am satisfied with my service provider.			
What I get from my service provider falls short of what I expect for this type of service. (R)			
The service provider is getting close to the ideal service provider.			
The service provider always meets my needs.			
Customer Loyalty (Hennig-Thurau et al. 2002; Zeithaml et al. 1996)	**.76**	**.85**	**.58**
The service provider is my first choice for these kinds of services.			
I intend to use this service provider within the next few years.			
I have a very strong relationship with this service provider.			
I am very likely to switch to another service provider in the near future. (R)			
INTERNAL SWITCHING COSTS	**.74**	**.84**	**.56**
Pre-switching search and evaluation costs (Jones, Mothersbaugh, and Beatty 2002)	**.90**	**.93**	**.73**
It would take a lot of time and effort to locate a new service provider.			
If I changed service provider, I would not have to search very much to find a new one. (R)			
If I stopped going to my current service provider, I would have to search a lot for a new one.			
It takes a great deal of time to locate a new service provider.			
If I stopped using my current service provider, I would have to call and look around for a new one to use.			
Post-switching behavioral and cognitive costs (Jones, Mothersbaugh, and Beatty 2002)	**.90**	**.93**	**.78**
If I were to switch service provider, I would have to learn how things work at a new one.			
I would be unfamiliar with the policies of a new service provider.			
If I changed service provider, I would have to learn how the ‘‘system works,’’ at a new one.			
Changing service provider would mean I would have learn about the policies of a new one.			
Setup costs (Jones, Mothersbaugh, and Beatty 2002)	**.80**	**.88**	**.72**
If I changed service provider, it would take a lot of time and effort on my part to explain to the new service provider what I like and what I want.			
If I changed service provider, I would have to explain things to my new service provider.			
There is not much time and effort involved when you start using a new service provider. (R)			
Uncertainty costs (Jones, Mothersbaugh, and Beatty 2002)	**.67**	**.82**	**.61**
I am not sure what the level of service would be if I switched to a new service provider.			
If I were to change service provider, the service I might receive at the new place could be worse than the service I now receive.			
The service from another service provider could be worse that the service I now receive.			
EXTERNAL SWITCHING COSTS	**.78**	**.86**	**.60**
Costs of lost performance (Jones, Mothersbaugh, and Beatty 2002)	**.89**	**.92**	**.75**
This service provider provides me with particular privileges I would not receive elsewhere.			
By continuing to use the same service provider, I receive certain benefits that I would not receive if I switched to a new one.			
There are certain benefits I would not retain if I were to switch service provider.			
I would lose preferential treatment if I changed service provider.			
Sunk costs (Jones, Mothersbaugh, and Beatty 2002)	**.85**	**.91**	**.71**
A lot of energy, time, and effort have gone into building and maintaining the relationship with this service provider.			
All things considered, I have put a lot into previous dealings with this service provider.			
I have spent a lot of time and money at this service provider.			
I have not invested much in the relationship with this service provider. (R)			
Brand relationship loss costs (Burnham, Frels, and Mahajan. 2003)	**.75**	**.86**	**.67**

I like the public image my service provider presents.			
I support my service provider as a firm.			
I do not care about the brand/company name of the service provider I use. (R)			
Personal relationship loss costs (Burnham, Frels, and Mahajan. 2003, Jones, Mothersbaugh, and Beatty 2000)	**.84**	**.91**	**.76**
At least one employee at this service provider is familiar with me personally.			
I have a somewhat personal relationship with at least one employee at this service provider.			
I have developed a personal friendship with at least one employee at this service provider.			

Notes. Measured using a 5-point Likert scale anchored by 1 = strongly disagree to 5 = strongly agree. (R) = Item is reverse coded. Fit-indices: CFI = .92; TLI = .91; RMSEA = .06; SRMR = .06.

TABLE 3

SWTICHING COSTS MEASUREMENT MODEL LOADINGS AND CORRELATIONS

INT	EXT	First-order Switching Costs	M	SD	1.	2.	3.	4.	5.	6.	7.	8.	9.
.58**		1. Pre-switching search and evaluation costs	2.71	1.05									
.62**		2. Post-switching beh. and cognitive costs	3.19	1.03	.43**								
.83**		3. Setup costs	2.54	1.03	.44**	.48**							
.68**		4. Uncertainty costs	3.09	.86	.38**	.39**	.35**						
	.80**	5. Costs of lost performance	2.32	1.03	.34**	.24**	.45**	.46**					
	.84**	6. Sunk costs	2.24	.97	.35**	.28**	.57**	.32**	.57**				
	.67**	7. Brand relationship loss costs	3.04	.93	.10**	.13**	.29**	.31**	.49**	.42**			
	.67**	8. Personal relationship costs	2.34	1.19	.20**	.21**	.43**	.28**	.47**	.48**	.39**		
		9. Customer Satisfaction	3.66	.89	-.03	.06*	.08**	.25**	.32**	.18**	.49**	.28**	
		10. Customer Loyalty	3.14	.90	.17**	.14**	.19**	.36**	.50**	.36**	.56**	.38**	.60**

Notes. Effects significant at * .05-level and ** .01-level. The first two columns include the factor loadings of the lower order-switching costs on the two-dimensional higher order conceptualization. The items are measured using a 5-point Likert scale anchored by 1 = strongly disagree to 5 = strongly agree.

TABLE 4

RESULTS OF HYPOTHESES TESTING USING HIERARCHICAL LINEAR MODELING (OVERAL IHIP)

Dependent Variable: Customer Loyalty	**Model 0: Base Model**	**Model 1: Level 1 Effects Only**	**Model 2: Random Intercept Model**	**Model 3: Random Slope and Random Intercept Model**
	Estimate	***Estimate***	***Estimate***	***Estimate***
LEVEL 1: Customer-level				
Intercept	2.75**	2.75**	2.74**	2.74**
Satisfaction	–	.49**	.49**	.48**
Internal switching costs	–	.07**	.07**	.10**
External switching costs	–	.44**	.44**	.43**
LEVEL 2: Industry-level				
IHIP	–	–	-.07*,†	-.06*,†
IHIP x internal switching costs	–	–	–	.08**
IHIP x external switching costs	–	–	–	-.08**
ICC	.10	–	–	–
DEFF	4.17	–	–	–
R^2 (within)	–	.51	.51	.53
R^2 (between)	–	–	.49	.53
Deviance (parameter estimated)	3123.94 (3)	2279.93 (6)	2276.89 (7)	2248.93 (14)
Increase in model fit (df)	–	844.01 (3)**	3.05 (1)*	27.07 (7)**

Estimator: Full Maximum Likelihood; * = $p < .1$, ** = $p < .05$ using a two-tailed test; † = $p < .05$ using a one-tailed test

TABLE 5

RESULTS OF HYPOTHESES TESTING USING HIERARCHICAL LINEAR MODELING (DIFFERENTIATED IHIP)

Dependent Variable:	**Model 4: Mental Intangibility**	**Model 5: Physical Intangibility**	**Model 6: Heterogeneity**	**Model 7: Inseparability**	**Model 8: Perishability**
Customer Loyalty	***Estimate***	***Estimate***	***Estimate***	***Estimate***	***Estimate***
LEVEL 1: CUSTOMER-LEVEL					
Intercept	2.75**	2.75**	2.75**	2.75**	2.74**
Satisfaction	.48**	.48**	.48**	.48**	.48**
Internal switching costs	.10**	.10**	.10**	.10**	.09**
External switching costs	.42**	.43**	.43**	.42**	.43**
LEVEL 2: INDUSTRY-LEVEL					
Direct Effects of Service Characteristics					
Intangibility (mental)	.06*,†	.05*,†	.05*,†	.05*,†	.05*,†
Intangibility (physical)	-.03*,†	-.02	-.03	-.03	-.03*,†
Heterogeneity	.01	.01	.01	.01	.01
Inseparability	-.03	-.03	-.03	-.03	-.03
Perishability	-.08**	-.08**	-.09**	-.08**	-.08**
Interactions with Informational SC					
Intangibility (mental) x internal SC	.07**	–	–	–	–
Intangibility (physical) x internal SC	–	.01	–	–	–
Heterogeneity x internal SC	–	–	.03	–	–
Inseparability x internal SC	–	–	–	.02	–
Perishability x internal SC	–	–	–	–	.05*,†
Interactions with External SC					
Intangibility (mental) x external SC	-.05**	–	–	–	–
Intangibility (physical) x external SC	–	.01	–	–	–
Heterogeneity x external SC	–	–	-.03*,†	–	–
Inseparability x external SC	–	–	–	-.03**	–
Perishability x external SC	–	–	–	–	-.04*,†

Estimator: Full Maximum Likelihood; * = p < .1, ** = p < .05 using a two-tailed test; † = p < .05 using a one-tailed test

TABLE 6

SUMMARY OF FINDINGS

Hyp.	Prediction	Testing Approach	Outcome and Result
H1	External SC > internal SC	Meta study	Supported (ext > int)
		Multi-level analysis	Supported (ext > int)
H2a-d	IHIP x internal SC (+)	Meta study	Supported (+)
		Multi-level analysis	Supported (+)
H2a	Intangibility (mental) x internal SC (+)	Meta study	Supported (+)
		Multi-level analysis	Supported (+)
	Intangibility (physical) x internal SC (+)	Meta study	Supported (+)
		Multi-level analysis	Not supported (ns)
H2b	Heterogeneity x internal SC (+)	Meta study	Supported (+)
		Multi-level analysis	Not supported (ns)
H2c	Inseparability x internal SC (+)	Meta study	Not supported (ns)
		Multi-level analysis	Not supported (ns)
H2d	Perishability x internal SC (+)	Meta study	Supported (+)
		Multi-level analysis	Supported (+)
H3a-d	IHIP x external SC (−)	Meta study	Supported (−)
		Multi-level analysis	Supported (−)
H3a	Intangibility (mental) x external SC (−)	Meta study	Not supported (ns)
		Multi-level analysis	Supported (−)
	Intangibility (physical) x external SC (−)	Meta study	Supported (−)
		Multi-level analysis	Not supported (ns)
H3b	Heterogeneity x external SC (−)	Meta study	Supported (−)
		Multi-level analysis	Supported (−)
H3c	Inseparability x external SC (−)	Meta study	Supported (−)
		Multi-level analysis	Supported (−)
H3d	Perishability x external SC (−)	Meta study	Supported (−)
		Multi-level analysis	Supported (−)