

Replicating Hybrid Solutions for Business Customers: A
Proposed Framework for Service Infusion Success

by

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ABSTRACT

Identifying factors associated with service infusion success has become an important issue in theory and practice, as manufacturers turn to services to advance performance. The goals of this dissertation are to identify the key factors associated with service infusion success and develop an integrative framework and associated research propositions to isolate the underlying determinants of successful hybrid solution strategies for business customers. This dissertation is comprised of two phases. The first phase taps into the experience and learning gained by executives from Fortune-100 manufacturing firms who are managing the transition from goods to hybrid offerings for their customers. A discovery-oriented, theory-in-use approach is adopted to glean insights concerning the factors that facilitate and hinder those service transition strategies. Twenty-eight interviews were conducted with key executives, transcripts were analyzed and key themes were identified with special attention directed to the particular capabilities that managers consider crucial for successful service-growth strategies. One such capability centers on the ability of a firm to successfully transfer newly-developed hybrid solutions from one customer engagement to another. Building on this foundation, phase two involves a case study that provides an in-depth examination of the hybrid offering replication process in a business-to-business firm attempting to replicate four strategic hybrid offerings. Emergent themes, based on 13 manager interviews, reveal factors that promote or impede successful hybrid offering transfer. Among the factors that underlie successful hybrid offering transfers across customer engagements are close customer relationships, a clear value proposition embraced by organizational numbers, an accurate forecast of market potential, and collaborative working relationships across

units. The findings from the field studies provided a catalyst for a deeper examination of existing literature and formed the building blocks for the conceptual model and several key research propositions related to the successful transfer of hybrid offerings. The model isolates five sets of factors that influence the hybrid offering transfer process, including the characteristics of (1) the source project team, (2) the seeking project team, (3) the hybrid offering, (4) the relationship exchange, and (5) the customer. The conceptualization isolates the critical role that the customer assumes in service infusion strategy implementation.

DEDICATION

To my partner in life and best friend, Darlene. We did it!

To my baby girl Isabel and best boy, Diego. You have both been my inspiration.

To Nick and Rita, for taking a young boy into their home and forging him into a man,
worthy of their love and support.

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CHAPTER 1

INTRODUCTION

With manufacturing firms struggling to meet growth and profitability targets, many are turning to services in order to advance financial performance and secure a competitive advantage. This change in strategy has been discussed in a variety of forums; from conference proceedings and journals in academia (Bitner and Brown 2008; Jacob and Ulaga 2008; Matthyssens and Vandenbempt 2008) to the front pages of the popular business press (Brown, Gustafsson, and Witell 2009; Hamm 2006; Sawhney, Wolcott, and Arroniz 2006). The benefits expected from moving from a product to a service-centered strategy are: economic, services are associated with higher margins and represent a consistent source of revenue than traditional products (Wise and Baumgartner 1999); customer-centric, customers are increasingly demanding it (Vandermerwe and Rada 1988); and strategic, services are considered more intangible and difficult to reproduce than products, and these attributes become a source of competitive advantage (Oliva and Kallenberg 2003). Despite this strategic shift and the powerful incentives for firms to move into services, there is a dearth of research on the factors that are required to successfully execute a service infusion strategy.

As business-to-business firms find it necessary to provide broader solution offerings composed of a combination of products and services, tailored to specific customer needs, corresponding changes are required in the nature and focus of marketing strategy. These solutions require managers to move away from a strategic orientation centered on products to one that is centered on hybrid offerings that combine products and services.

Shaker, Berry, and Dotzel (2007) define a hybrid offering as a combination of one or more goods and one or more services that together offer more customer benefits than if the good and service were available separately. More recently, the same authors provide a simpler definition: “hybrid solutions are products and services combined into innovative offerings” (Shanker, Berry, and Dotzel 2009, p. 95). In line with Ulaga and Reinartz (2011), I adopt the latter definition for the current study and apply the conceptualization to hybrid offerings that business-to-business firms develop for their customers that combine industrial goods and services.

Ulaga and Reinartz (2011) provide a classification scheme for hybrid offerings. Within this framework, business services can be classified on two dimensions to identify four good-service combinations. The first dimension identifies whether the service is directed at the supplier’s good (e.g. inspection of an ATM machine) or is targeted on the customer’s processes (e.g. energy efficiency audit for a commercial building). A second dimension for classifying services for hybrid offerings concerns whether the supplier promises to perform a deed (in-put based), such as recycle a power transformer, or to achieve a performance outcome (output-based) such as provide fleet management on behalf of a trucking company. Different resources and distinctive capabilities are needed to successfully deploy strategies for each of the resulting hybrid offering categories. For example a manufacturer of ATM machines drew on its deep knowledge of consumer usage of its machines across its installed base and developed services for improving cash management and productivity for its retail bank customers. While such offerings can provide a strong differential advantage and propel growth, many manufacturing firms struggle when they venture into the services sphere.

In an influential article, Tuli, Kohli, and Bharadwaj (2007) examine a particular type of hybrid offering in business markets: customer solutions. The authors clearly demonstrate that manufacturers and customer view solution offerings from entirely different perspectives. Whereas manufacturers typically view solutions offerings as customized and integrated combinations of goods and services for meeting a customer's business needs, customers perceive solutions as relational processes. From the customer's standpoint, those customer-company relational processes involve; "(1) customer requirements definition, (2) customization and integration of goods and/or services and (3) their deployment, and (4) postdeployment support, all of which are aimed at meeting customers' business needs." (Tuli, Kohli, and Bharadwaj 2007, p.1).

Identifying the most important factors associated with service infusion success by manufacturers has become an important issue in theory and practice. To create and implement a profitable service infusion strategy research suggests that a distinctive set of organizational capabilities may be required (Fang, Palmatier, and Evans 2008; Mathieu 2001a; Neu and Brown 2005). In fact, the organizational capabilities that lead to a successful product-centered strategy may be inadequate in service infusion. For example, in adopting a service-centered strategy, the exchange process becomes more relationship oriented (Oliva and Kallenberg 2003), and in another example, a different set of customer relationship management (CRM) capabilities may be required to forge relationship ties with a new set of buying influentials in the customer organization (Palmatier et al. 2006). To this end, past research suggests that a successful service infusion strategy likely requires a rather significant change to existing organizational capabilities, including changes to an organization's culture, customer segmentation and relationship

management systems, as well as a host of refinement in service innovation and processes including the ability to successfully replicate or repeat a solution created for one customer with other customers.

While service infusion constitutes a strategic priority for goods-dominant manufacturing firms, past research fails to provide an integrating framework that managers can use to orchestrate the transition from a product-centered strategy to one that delivers unique value to customers in the form of a hybrid offering (e.g. an innovative product and service offering).

Conceptual work has always proved useful in helping scholars develop the insights needed to advance a new area of research such as service infusion (Macinnis 2011). Strong contributions in marketing require new ideas that are rooted in new conceptual understandings of the phenomena being studied. The domain of service infusion lacks such a conceptual foundation in the marketing literature. To that end, the goals of this dissertation are to (1) identify the key factors associated with service infusion success by manufacturing firms and (2) develop an integrative framework and associated research propositions to isolate the underlying determinants of successful hybrid solution strategies for business customers.

This dissertation is comprised of two phases. In overview, the first phase taps into the experience and learning gained by executives who are charged with the responsibility for infusing services into their core strategies and managing the transition from goods to hybrid offerings for their firms. Since little is known about the factors that drive the success or failure of such strategic service initiatives or the particular challenges a service infusion strategy presents for key decision makers, a discovery-oriented, theory-

in-use approach is adopted (Deshpande 1983). From phase one, insights are derived concerning the factors that facilitate as well as those that hinder service transition strategies. Likewise, attention is directed to the particular capabilities that managers consider crucial for successful service-growth strategies. One such capability that emerged from phase one interviews centers on hybrid offering deployment, particularly the ability to successfully transfer hybrid solutions from one customer engagement to another.

Building on this foundation, phase two involves a case study that provides an in-depth examination of the hybrid offering replication process in a business-to-business firm. The goals of the case study are to explore the nuances of hybrid offering prototyping, better understand the range and complexity of hybrid offering categories, and query managers concerning the factors that promote or impede knowledge transfer and hybrid offering deployment.

Taking a broader view, research suggests that a distinctive set of organizational factors may be required for a service infusion strategy to meaningfully impact financial performance (Mathieu 2001a; Neu and Brown 2005; Palmatier and Steenkamp 2008). For comparison purposes, prior research conducted with more product-dominant manufacturers has considered marketing capabilities as a broad array of competencies associated with marketing strategies that drive overall firm success, such as the degree to which a firm may be considered market-driven (Hooley et al. 2005; Nath, Nachiappan, and Ramanathan 2010; Vorhies and Morgan 2005) a firm's use of benchmarking (Vorhies and Morgan 2005); a firm's effectiveness and efficiency in new product development (Dutta, Narasimahan, and Rajiv 2005; Madhavan and Grover 1998); supply-

chain management (Ramaswami, Srivastava, and Bhardgava 2009; Srivastava, Shervani, and Fahey 1998) customer management (Morgan, Slotegraaf, and Vorhies 2009; Palmatier et al. 2006; Ramaswami, Srivastava, and Bhardgava 2009) and research and development (R&D) (Dutta, Narasimahan, and Rajiv 2005). Likewise, past studies have viewed the services offered by manufacturing firms as a homogenous unit. However, other scholars point to the growing need to consider a more nuanced view of these services and how different types of services may require a distinct set of organizational capabilities (Antioco et al. 2008; Mathieu 2001b; Shankar, Berry, and Dotzel 2009). The current study will identify the specific service-centered factors associated with firm success.

Service infusion is a strategic management decision that firms undertake and requires a new set of organizational capabilities to achieve success (Bharadwaj, Varadarajan, and Fahy 1993; Gebauer and Friedli 2005; Neu and Brown 2005; Oliva and Kallenberg 2003). Past studies have given sparse attention to the specific organizational capabilities that are associated with services strategy success. By exploring specific implementation capabilities, the study is responsive to calls for marketers to address the neglected area of strategy implementation in marketing (Homburg, Fassnacht, and Guenther 2003; Noble and Mokwa 1999). The implementation of organizational capabilities is central to management's role in executing strategy (Day and Wensley 1983). These implementation capabilities include an organization's ability to successfully replicate hybrid offerings across customer engagements. By isolating the specific innovation processes within the firm that underlie service infusion success, a new

conceptual understanding of is provided concerning the factors that drive success when venturing into value-added combinations of goods and services.

The service innovation process that firms undertake when pursuing service infusion strategies often involves an amalgam of product and services that address a specific customer business need (Cova and Salle 2008). These hybrid offerings are created by a set of organizational routines that firms perform in conjunction with their customers. The routines are rooted in the organizational practices that organizational team members perform through iterative interactions with customers. These organizational routines in turn integrate, reconfigure, and create new knowledge resources that lead to new, firm-level dynamic capabilities (Eisenhardt and Martin 2000). In employing a service infusion strategy, manufacturers rely on existing organizational practices when they work with customers to co-create hybrid offerings. These practices can span the “front-end”, where the interactions with customers occur or the “back-end” where suppliers attempt to integrate these different solution components into an integrated whole (Davies, Brady, and Hobday 2006). Although research has begun to look at how firms may create these customer facing capabilities (Edvardsson, Holmlund, and Strandvik 2008), the challenging of identifying a firm’s replicating capabilities remains elusive.

Developing hybrid offerings require significant effort and investment for manufacturers. The account team members of the firm, often representing the sales, marketing, and field operation groups, will often spend weeks or even months developing and coordinating independent divisions of the firm to create and implement a hybrid offering (Tuli, Kohli, and Bharadwaj 2007). Challenges associated with how firm’s manage the task of coordinating multi-domains of expertise has long been a topic of

study in marketing (Day 1994; Gulati 2007). After successfully developing a hybrid offering for a customer, managers find it difficult to replicate the hybrid offering for different customers with similar needs. This is a critical issue since a manufacturer needs to recoup the firm's investments in people, resources, and time in order for these engagements to remain profitable. Studies have shown that the extent to which companies can transfer best practices within the firm can lead to increased firm performance (Argote and Ingram 2000; Storbacka 2011; Szulanski 1996). By creating what scholar's term "economies of repetition" firm's can leverage newly created organizational routines to support similar projects efficiently and effectively (Davies and Brady 2000; Levitt 1976). This leads to a problem identified in both theory and practice. How do manufacturing firms successfully transfer hybrid offerings to a new set of customers? Hybrid offerings serve as knowledge assets that firms can use to build competitive capabilities. The degree to which firms can leverage these assets and transfer them across different customer environments, is a key antecedent to the capability for implementing a hybrid offering strategy successfully.

Following an approach taken by previous researchers (Winter and Szulanski 2000), the second phase of the dissertation will incorporate existing theoretical frameworks from the strategic management literature coupled with insights derived from a case study of the hybrid offering replication process at a large multinational firm. In line with an approach followed by Workman, Homburg, and Gruner (1998), I seek to develop a holistic framework that integrates insights from my fieldwork with existing literature. In contrast to most conceptual frameworks, which are derived largely from a literature review, the conceptual framework issuing from phase two is enriched by field

observations. The field observations provide a catalyst for a deeper examination of existing literature to account for particular patterns observed (Workman, Homburg, and Gruner 1998). In describing the distinguishing features of this method, Workman, Homburg, and Gruner (1998, p.26) observed: “Compared with inductive field studies which primarily draw on field observations to develop ‘grounded theory’ (Glaser and Strauss 1967), our approach uses a dialectic interaction between field observations and existing theory to ‘reconstruct’ theory (Burawoy 1991).

In examining the replication of hybrid offerings across customers, it is important to distinguish knowledge transfer of organizational routines from conceptual neighbors such as the rapid prototyping of products. In rapid prototyping, manufacturers quickly develop and implement a working model of the specifications that were quickly determined by the firm with the goal of modifying the working model once it has been functioning within the customer environment (von Hippel 1994). Once the firm collects the product requirement specifications, organizational members work in isolation and then return to the customer site to implement the prototype. In comparison with hybrid offerings where considerable time is spent upfront to understand a customer’s broad business needs and operational environment, rapid prototyping relies on minor and major changes at the backend in order to get the prototype to fit the customer environment. Hybrid offerings involve collaborative cooperation with the customer in a reiterative process of co-creation (Tuli, Kohli, and Bharadwaj 2007; Vargo and Lusch 2004a).

By combining field observations with prior literature, the phase-two study centers on the antecedents that drive the hybrid offering transfer process. Attention is given to the relational processes and knowledge characteristics between the organizational actors who

are directly involved in the exchange. These actors hold specific knowledge assets of the firm (products, services, interfaces, and processes) and customer (requirements, operations, and processes). A fundamental challenge lies in how firms coordinate these multi-domain areas of expertise so they can re-utilize knowledge that is already in use. Organizational routines not only function as a coordinating mechanism within the firm but also serve as the conceptual lens to study the replication of hybrid offerings. The process of creating hybrid offerings can be conceptualized as learning a set of organizational routines that are enacted by the members of the firm and customer organization.

This work makes the following three broad contributions. First, it fills a gap in the growing solutions marketing research agenda by giving explicit focus to building a conceptual framework to help delineate the service infusion domain. Using a theory building approach I will present a conceptual foundation rooted in a deep review of the literature and from qualitative interviews with practitioners actively infusing their product portfolios with services. The framework will also help key in and inform a keystone part of service infusion, the replication of hybrid offerings. How firms successfully deploy hybrid offerings is an important part of the overall service infusion strategy. Much has been done to further our understanding of hybrid offerings including: their composition (Ulaga and Reinartz 2011), how customer's view them (Tuli, Kohli, and Bharadwaj 2007), how to create their value proposition (how to sell) (Cornet et al. 2000; Cova and Salle 2008), and their link to firm profitability (Eggert et al. 2011; Palmatier and Steenkamp 2008). However, work on how manufacturing firms successfully (and profitably) implement hybrid offerings is lacking. Second, although the importance of

the customer's perspective in service infusion has begun to take on increasing importance (Tuli, Kohli, and Bharadwaj 2007), studies that highlight the customer's role in the implementation of a service infusion strategy is an important contribution for marketing scholars to make. This study proposes that customer characteristics can have a moderating effect on the hybrid offering transfer process. Thereby emphasizing the role the customer plays during service infusion strategy implementation. Finally, the study addresses an identified research priority by the Marketing Science Institute, which calls for research regarding strategies and practices for co-creating and delivering solutions for business customers.

As outlined by previous marketing scholars, a strategy focused on service infusion can help a firm improve performance by (1) providing a way to search for more attractive market opportunities with higher margins (Neu & Brown, 2005), (2) leverage their core strategic activities and resources more efficiently by generating more revenue from an existing installed base of product customers (Bharadwaj, Varadarajan, and Fahy 1993), (3) establish a more stable revenue stream (Palmatier and Steenkamp 2008), (4) forge stronger and closer customer/firm relationships (Palmatier and Steenkamp 2008), (5), create new sources of sustainable competitive advantage (Gebauer 2008b), and (6) meet customer demands (Oliva and Kallenberg 2003). While past research provides a strong and compelling case for why manufacturers are incorporating more services into their offerings, further work is needed to ensure that their service strategies succeed.

Implementing a service infusion strategy is not easy, presenting unforeseen challenges and obstacles for managers. For example, employees in the firm may not be motivated to support or buy into the potential upsides associated with hybrid offering

strategy and as a result, may be hostile to the new strategic initiative (Oliva and Kallenberg 2003). A service infusion strategy may not represent a good strategic fit with the overall firm mission, and fail to secure or sustain executive support (Neu & Brown, 2005). In turn, companies may also lack a coherent strategy to support a complex service offering across a heterogeneous market. Finally, structural factors may serve as a barrier to needed resources and capabilities within firms that can be characterized by high levels of bureaucracy and a complex organizational hierarchy (Brown, Gustafsson, & Witell, 2009).

Implementing a successful service infusion strategy represents a major organizational challenge. Delivering high-value hybrid solutions entails a certain set of organizational principles, structures, and processes that may be difficult to coexist in a traditional product-dominant firm. The field of marketing is sparse with respect to research describing how successful strategies built around hybrid offerings may be carried out. Literature uses a variety of terms to describe similar hybrid offering strategies. These include solutions, service solutions, services, complex product systems, and integrated products and services. Hybrid offerings are a special type of solution (Uлага and Reinartz 2011). The aim of this dissertation is to create and present a conceptual tool kit that can help firms understand the key factors that facilitate or impede service infusion success so that they may implement a hybrid offering deployment strategy that demonstrates the capabilities to successfully transfer a solution from one customer engagement to another.

PROBLEM STATEMENT.

Research suggests that some companies are more successful than others at implementing a service infusion strategy. A recent study by a leading B2B consulting firm reports that only 21% of firms succeed with such a strategy (Baveja, Gilbert, and Ledingham 2004). In fact, notable failures by leading companies are common, such as Intel's move into the web hosting business (Sawhney, Balasubramanian, and Krishnan 2004) and Xerox's failed attempts throughout the 1990s to become a "documents solutions" company (Foote et al. 2001). Another study of sixty hybrid offering providers discovered that three out of four companies saw small gains from a service infusion strategy (Johansson, Krishnamurthy, and Schliissberg 2007), the financial returns did not justify the investment required to enter into the service business (Young 2008). These studies support the notion that a successful service infusion strategy is difficult to execute profitably. These firms may underestimate the economic benefits attributed to such a strategy and lack the organizational capabilities required to deploy a successful service infusion strategy (Oliva and Kallenberg 2003).

A successful hybrid offering strategy likely requires significant change to existing organizational capabilities, particularly the capabilities of the boundary spanning personnel. These new capabilities include the development of an ability to replicate customized hybrid offerings by acquiring and applying information and insights from colleagues to new customer environments. This ability to transfer the knowledge that was learned in one customer engagement and replicate it in a different customer environment is instrumental to achieving economies of scale that advance profitability and overall service infusion success.

A variety of theoretical perspectives have examined the use of knowledge by firms and their ability to use, create and commercialize such knowledge into a competitive advantage (Kogut and Zander 1992). Other researchers have advanced the idea that this knowledge-based view of the firm is the principal source of a firm's competitive advantage (Eisenhardt and Martin 2000). Given the importance placed on knowledge within a firm, the Marketing Science Institute has deemed that developing strategies and processes for B2B firms to create innovative complex business solutions is important and research that examines how firm's take advantage from a variety of firm depositories of knowledge is needed to advance marketing practice (MIS Research Priorities 2011-2012). Once the conceptual domain of service infusion is delineated, the dissertation will center on a key issue associated with service infusion success, the replication of hybrid offerings, and investigate the factors that facilitate or impede the transferring of a hybrid offering from one customer to another. Firms co-create hybrid offering for one customer then present and sell the hybrid offering to a second, different customer. There has been a call for more research to examine replication within firms (Teece 1998). Specifically, there is a need to explore the conditions under which knowledge is embedded in various reservoirs within a firm (Argote and Ingram 2000) and to understand the mechanisms through which successful transfer occurs (Jensen and Szulanski 2007). This proposed study will fill a gap in the existing research literature by exploring the factors that promote knowledge transfer (Simonin 1999). This dissertation will answer these research calls by examining the knowledge transfer process within the firm and identify the factors that lead to a successful hybrid offering transfer.

THE STUDY

Research objectives and questions.

The objective of this study is to create a set of conceptual tools to delineate the service infusion domain and with these newly created tools apply them in a field case study that explores one of the most challenging components in a service infusion strategy: the replication of hybrid offerings across customer engagements. The replication context allows for the opportunity to consider the key constructs and insights gained from the first phase of the study and relate these field observations to an existing conceptual framework in strategic management to provide a set of propositions that will inform practice and advance our understanding of the service infusion domain.

Past work has identified transferring knowledge and replicating best practices within a company as a challenging task that often results in failure (Szulanski 1996). Literature has examined knowledge transfers under two main theoretical lenses. The first takes a communications theory approach where knowledge transfer is treated as a message that is encoded in a medium by a sender to a recipient within a given context (Molina, Llorens-Montes, and Ruiz-Moreno 2007). A second framework focuses on network issues that are social and institutional such as the characteristics of the relationship that one establishes between the different actors involved in the transfer. Moreover, the proposed study extends the work of Szulanski (1996) by examining knowledge transfer in a marketing context and represents one of the first empirical studies of knowledge transfer conceptualized as a hybrid offering exchange. The proposed research explores the customer's role in the creation of the solution and the

relational drivers that may predict successful hybrid offering transfer. The study will center on these research questions:

1. What are the special challenges and opportunities that confront key executives when pursuing a service infusion strategy within the organization?
2. What are the underlying factors that promote or impede service infusion strategy success?
3. What are the particular capabilities and processes that underlie the successful transfer of hybrid offering solutions from one customer engagement to another?
4. What methods can be used to capture and manage the knowledge that underlies the successful and timely replication of hybrid offering solutions across the customer base?

RESEARCH CONTEXT

For phase one of the research, depth interviews were conducted with senior executives who are leading service infusion initiatives at six Fortune-100 traditional manufacturing companies in the business-to-business market. These firms have embraced the service infusion strategy concept and begun a companywide initiative to support the strategy throughout the company. These companies represent a wide variety of global industries such as manufacturing, high technology, supply chain, and engineering. These global companies provide a broad array of products and services to business customers in a wide range of industries such as healthcare, energy, transportation, telecommunication, and media. Each sells sophisticated products that require a high level of technical expertise. Although their customers rely on their expert knowledge and services to co-create customized technology solutions (Tuli, Kohli, and

Bharadwaj 2007), the majority of the revenues for each firm still comes from traditional products.

These companies provide an ideal context for our study because they sell a wide array of hybrid offerings (simple and complex) and support a wide variety of customers (large and small). These firms have experienced varying levels of success with their service initiatives. Based on qualitative interviews, the executives of these firms have recognized that the ability to transfer hybrid offerings to different customers is a real and pressing challenge. These companies have also refined key account management practices in order to forge close relationships with customers and facilitate the creation of hybrid offerings.

In the second phase of the research, a single-firm case study is used to closely examine a specific challenge in the service infusion strategy implementation process: the replication of hybrid offerings across customer engagements. A large European technology manufacturer that meets the same characteristics of the phase-one participating companies provided the research context. This firm provides an intriguing context because they have developed a sophisticated knowledge-management process for capturing best practices and transferring knowledge related to existing hybrid offerings but still experienced many of the same challenges identified by phase-one firms that were not as advanced. Moreover, executives had recognized the need for a service infusion strategy more than a decade ago but still wrestled with the same challenges articulated by member firms in the first phase of the study.

As these high-tech hybrid offerings become increasingly complex, both sides of the exchange process have to constantly update the skill sets of their employees.

Alternatively, some customers simply decide to secure many of the skill sets they need from third parties (Young 2008). As customers reach out to outside vendors and outsource critical business needs, solutions are born. These solutions are a particular type of hybrid offering in business markets offered by manufacturing firms (Ulaga and Reinartz 2011).

The creation of hybrid offerings has shifted from that of an individual salesperson efforts to that of an ad hoc, cross-functional team that is assembled and managed by the salesperson (typically an account manager) to create a particular customer solution (Tuli, Kohli, and Bharadwaj 2007). The account team is comprised of technical experts and product specialists who work collaboratively with a customer's own internal technical staff to co-create the hybrid offering. These are project-lead teams who report directly to a project manager who is responsible for implementing the hybrid offering (Davies and Brady 2000). Hybrid offering project teams are also recalibrated to work on the next customer hybrid offering engagement depending upon the customer context. A team is defined as "a collection of individuals who are interdependent in their tasks, share responsibility for outcomes, who see themselves or are seen by others as an intact social entity embedded in one or more larger social systems"(Cohen and Bailey 1997). Therefore, in the context of hybrid offering transfers, a hybrid offering project team represents the individuals from the hybrid offering providers who are responsible for the outcomes related to a hybrid offering.

The case study phase of the dissertation will examine four hybrid offerings that have been developed within the past two years by our single case firm. The firm executive or high level manager with responsibility for implementing the hybrid offering

strategy and who possess knowledge related to each of the four hybrid offerings will identify a key informant for each hybrid offering. A key informant is defined as an organizational member who has direct knowledge of the hybrid knowledge transfer and represent the key person responsible for the hybrid offering performance outcomes. These key informants include product managers and solution architects who have consistent and frequent interaction with the customer.

POTENTIAL CONTRIBUTIONS

The study will make the following contributions to theory. First, the study will create a conceptual framework that identifies the main challenges found in implementing a service infusion strategy. These conceptual tools, combined with existing theories will offer a set of research propositions that will help delineate our understanding of the service infusion domain and the hybrid offering replication process. Second, the study addresses a gap in the growing service infusion literature by centering on how firms successfully implement a successful hybrid offering strategy. Third, in contrast with previous studies that focus on firm capabilities and strategy/environment fit configurations (Neu and Brown 2005), this study places the customer at the forefront of the characteristics responsible for influencing factors that drive successful hybrid offering strategy implementation. Finally, the study addresses a gap identified as a research priority by the Marketing Science Institute, which calls for research regarding strategies and practices for co-creating and delivering solutions for business customers.

The study also provides potential contributions to business practice in several ways. First, by identifying the factors that can facilitate or impede knowledge transfer, managers can develop strategies such as employee training or customer workshops that

seek to address factors such as a lack of motivation of the firm members or a customer's lack of knowledge as potential contributors to hybrid offering transfer difficulty. Second, special insights may be provided for designing systems, procedures, and processes to better capture critical knowledge and facilitate successful replication. Third, the study offers guidelines for matching freshly developed hybrid offerings to new customer opportunities and for aligning account management processes to better capture those opportunities.

LIMITATIONS

A limitation of research of this type is the limited sample of firms and managers represented in the study. This limits the generalizability of our results. However, by focusing on a small subset of potential participants, a deeper examination of the research questions is provided than would have been possible in a large multi-firm study. Service infusion represents a very challenging and complex endeavor for a firm, often spawning a reconfiguration of the organizational structure and requiring a new set of skills and competencies from organizational members. Little academic research is available to shed light on the core issues and guide managers. At such an early stage of knowledge development, field interviews and case studies, like those represented in the current study, are appropriate for the development of concepts, framework, and theories (Eisenhardt 1989). Field interviews often represent a first stage and provide a catalyst for a refined conceptual framework, laying the foundation for a future quantitative phase. The goal of this dissertation is to lay this foundation.

DISSERTATION ORGANIZATION

This chapter provides an overview of the research study, context, its research objectives, the questions driving the investigation, and its potential contribution and limitations. Chapter two will review the relevant literature on service infusion and hybrid offerings. Chapter three details the phase-one study that provides a qualitative investigation into the service infusion domain. The study combines the insights gleaned from the literature review with in-depth interviews of 25 executives at manufacturing firms who are infusing services into their companies. Chapter four centers on the phase-two study that represents a single-firm case study. The focus here is on critical issues in service infusion strategy implementation, identified in phase-one, the replication of hybrid offerings across customer engagements. Chapter five will present a conceptual framework with propositions, derived from the two studies and grounded in the service infusion literature that examines the underlying determinants related to the successful replication of hybrid offerings. Chapter six provides a summary of the research and explores the implications that emerge from both marketing theory and practice.

CHAPTER 2

LITERATURE REVIEW

The focus of this chapter is to review the relevant academic literature that will inform the phase one and phase two research studies. First, we begin by examining the broad domain of service infusion. Second, the literature review will narrow in on work related to the hybrid offerings that are created when firms employ service infusion strategies. Next, an analysis of the work associated with replicating these hybrid offerings will further illuminate how these hybrid offerings anchor a firm's ability to reap expected profits. Lastly, a review of sticky knowledge theory will help introduce concepts, when applied within a service infusion context, can help establish a conceptual tool kit that allows for a richer understanding of service infusion strategies. Throughout the analysis, relevant gaps in the literature are isolated and discussed.

SERVICE INFUSION

Service infusion can be best described as a strategy that product-dominant firms (firms who have traditionally competed through delivering physical goods to market) deploy as they seek to incorporate more services into their product portfolios. There is a general consensus found in theory and practice that services are distinct from products and these differences stem from their design, delivery, staffing and management of the services provided (Sawhney, Wolcott, and Arroniz 2006; Storbacka 2011). Some scholars have argued that moving into services is the natural progression for most establish companies with a mature product portfolio (Young 2008). As these companies enter the service-providing business, they are increasingly working in collaboration with

their customers to co-create the service solution (Vargo and Lusch 2004). This added customer element increases the complexity of service sales.

The services that are created in these customer interactions are found in a variety of industries and can be described as consisting of low volumes of transactions that serve a unique set of customer requirements (Davies and Brady 2000). Service solution selling is the process by which firms bring together goods and services from different interfunctional resources to fulfill a specific customer need. The ability to successfully transfer these service solutions is of paramount importance to the market-oriented firm as they seek to respond to the business challenges of their customers (Day 1994).

However, in shifting the focus from stand-alone product sales to service solution selling, firms are moving away from the world of tangibles (products) to intangibles (unique product and service combinations, knowledge, skills, etc.). As this shift continues, managers will face increased pressure to capture service solution knowledge from one customer engagement and successfully transfer that new service solution knowledge to organizational members who can effectively and efficiently apply it to other customer engagements (Vargo and Lusch 2004). The firms who have succeeded in moving into this new service solution arena comprise the best of the blue chip companies such as IBM, HP, and GE (Young 2008). The tacit elements of these service solutions are what can drive competitive advantages for firms. These intangible factors of the solution limit imitation by competitors and the custom nature of the solution gives them a strong appeal to customers (Bharadwaj et al. 1993). The elements that make these solutions “*sticky*” also make them hard to transfer outside of their original environment (von Hippel 1994; Szulanski 1996). More on this stickiness will be presented later.

The potential for a service infusion strategy to positively affect performance is understood. However, challenges remain in understanding its potential roadblocks and challenges. Managers may influence some of these challenges. For example, employees in the firm may not buy into the potential upsides associated with service infusion strategy and as a result, may be hostile toward the new strategic initiative (Oliva and Kallenberg 2003). Providing services may not represent an appropriate strategic fit with the overall firm mission (Neu and Brown 2005). Companies may also lack a coherent strategy to support a complex service offering across a heterogeneous market. Finally, organizational factors may serve as a barrier to needed resources and capabilities that are needed in support of the new business practices. This is especially relevant in firms characterized by high levels of bureaucracy that house their service organizations deep inside a complex organizational hierarchy (Brown et al. 2009).

Much of our understanding about what is needed to implement a service infusion strategy comes from several research streams collectively characterized as the solutions literature. This entails topics such as servitization (Baines et al. 2009; Mathieu 2001b), solutions marketing (Storbacka, Ryals, and Davies 2008; Tuli, Kohli, and Bharadwaj 2007; Ulaga and Reinartz 2011), and solution strategy and management (Davies, Brady, and Hobday 2007; Galbraith 2002). These scholars stress the importance in distinguishing between organizational practices that support product-centric processes versus those that are needed for services, yet little research exists that offers conceptual insights concerning how a company may design the needed organizational practices that support service-centric strategies (Storbacka 2011). For example, an important contribution to the literature unifies the importance of front-end (customer facing) units

to interacting with internal organizational resources in order develop innovative solutions and to uncover new opportunities that leverage newly built solution capabilities.

However, the authors do not offer a conceptual road map for building such internal and external linkages (Miller et al. 2002). Please see Table 1 for a summary of early conceptual work on service infusion.

Table 1

Summary of Conceptual Advancements in Service Infusion

Authors (Date)	Methodology	Findings
Levitt (1976)	Conceptual	Clinging to a preindustrial notion of service as deeds increases the likelihood that managers will miss out on the rapid advancements made by the industrialization of service which focuses on better technological tools, simpler methods and processes that utilize a combination of: (1) hard technologies, (2) soft technologies, and (3) hybrid technologies.
Vandermerwe & Rada (1988)	Interviews with senior executives of both service and manufacturing companies.	The servitization of business has evolved through three stages: (1) goods or services, (2) goods + services, and (3) goods + services + support + knowledge + self-service. Companies can employ service infusion strategies as a competitive tool and to alter the dynamics of the competitive field by blurring the line between manufacturers and service providers.
Galbraith (2002)	Conceptual	A company infusing services must become more customer-centric versus product-centric. There are four major dimensions to a service infusion strategy: (1) types of solutions, (2) scale and scope, (3) integration, and (4) revenues. To link the strategy to your organization, a firm needs to consider organizational factors such as: (1) structure, (2) processes, (3) reward systems, and (4) people.
New & Brown (2005)	Multiple case studies with 4 IT firms.	Good-dominant firms need to adopt a market orientation and customer-centered orientation and this is best accomplished when firms integrate their service organization inside their existing structure.

ESTABLISHED CONCEPTUAL FRAMEWORKS

While our conceptual understanding of service infusion is limited, there have been a handful of studies that have attempted to advance the domain by offering conceptual advances. For example, researchers have argued that service infusion can be conceptualized on a continuum ranging from product-centered to service-centered strategies (Mathieu 2001b; Zeithaml et al. 2014). At one end of the continuum, a traditional manufacturing firm offers services to augment an existing product and to enhance that product's performance. At the other end of the continuum are core service offerings that are supported by products. These services enhance customer internal operations and organizational processes (Gebauer 2008a; Oliva and Kallenberg 2003; Zeithaml et al. 2014) By placing the services created with service infusions strategies along a continuum we can see how services on the right side of the continuum, which are more customer centric, require a deeper understanding of the customer's operations and related core activities (Mathieu 2001b). Please see Fig. 1.

The Service Infusion Continuum

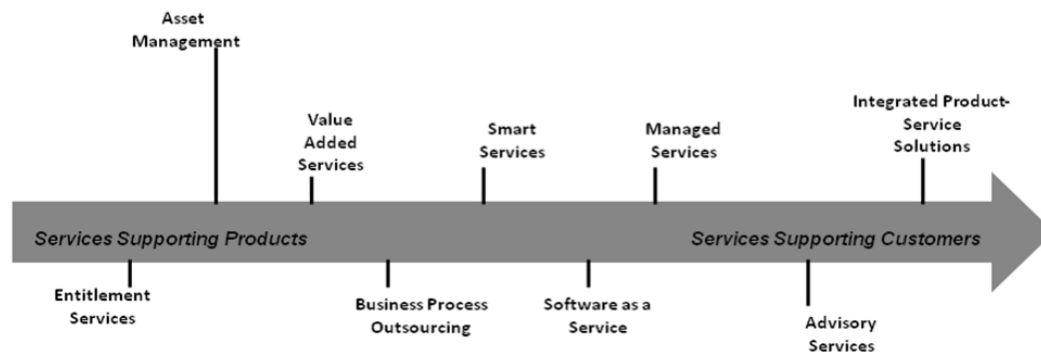


Figure 1. The Service Infusion Continuum from Zeithaml et al. (2014)

Another example centered on how well solution providers understand solutions. Researchers conducted an extensive qualitative study that focused on how practitioners and their customers viewed solutions (Tuli, Kohli, and Bharadwaj 2007). They found that while solution providers thought of solutions as a bundle of products and services, customized and integrated to address a specific customer business need, their customers viewed solutions as a set of relational processes. These processes include requirement definition, customization and integration, deployment and post deployment support. This broadens our understanding of the service solutions that are created through service infusion strategies and emphasizes the need to consider the larger context of the solution transaction, such as the overall customer relationship. A strong customer relationship, the authors argue, can help solution providers become more adaptive as they seek the political and operational counseling required to implement the solution (Tuli, Kohli, and Bharadwaj 2007).

Such a strong customer-centric strategy can also have a negative effect. Although past studies (Gulati 2007; Tuli, Kohli, and Bharadwaj 2007) have emphasized the value of firms understanding how solutions impacts their customer's business, others have noted that in order to succeed with customized hybrid offerings, firms need to plan for replication by incorporating standards into the workflow and utilizing shared tools and processes (Auguste, Harmon, and Pandit 2003). Customization strategies require a thoughtful and measured approach. In seeking to ensure their solutions "fit in" well with the customer's environment, firms run the risk of overly customizing their solutions to a specific environment. The pressure to ensure that solutions are well integrated into a customer's environment may create challenges when solution providers attempt to replicate their efforts. Scholars have long argued that solution providers need to take a modest approach and balance the need for customization versus standardization (Anderson and Narus 1995). But these works emphasize the impact on profitability and not the impact of how too much customization can damage profitability and can confound service solution replication.

Previous research has classified services as existing on a continuum where services supporting products (SSP) are represented on one end and services supporting customers (SSC) on the other (Baines et al. 2008; Mathieu 2001a; Zeithaml et al. 2014). From Figure 1 observe that SSP ensures the performance and proper functioning of the firm's core products (Mathieu 2001b) and SSC are services that are focused on the client's actions and internal processes. SSC are associated with complex, highly customized offerings that require a deep knowledge of the customer's business processes (Davies and Brady 2000). These classifications are a result of the fact that services found

in the business-to-business market are not homogenous but vary according to the degree to which the customer connection is relationship or process-oriented (Oliva and Kallenberg 2003). Process-oriented offerings are positioned on the left (SSP) and relationship oriented offerings occupy the far right (SSC) of the continuum. I theorize that the organizational capabilities required for a successful service infusion strategy will positively moderate the impact of SSP and SSC on firm performance. However, the impact provided will vary by degree. Compared to SSP, a successful service infusion strategy involving SSC likely requires a stronger set of organizational capabilities. For example, innovation practices that work well for products may not transfer readily for services, especially when the product is a hybrid offering that consists of both products and services. Replicating hybrid offerings requires stronger internal firm linkages and a well-defined understanding of what constitutes replication success. As firms move across the service infusion continuum and offer increasing complex and customized services, greater demands are imposed on the underlying replicating capabilities of the firm.

A noteworthy contribution to the service infusion literature is a recent work that focuses on the successful factors manufacturers use in designing and delivering hybrid offerings (Ulaga and Reinartz 2011). Using case studies these researchers offer a framework that identifies unique resources and capabilities that manufacturers have to possess in order to create successful hybrid offerings. These resources include: an installed base product usage and process data, product development and manufacturing assets, product sales force and distribution network, and field service organizations. See Table 2 for definitions. With these resources, manufacturers have critical inputs to the distinctive capabilities important to implementing hybrid offerings. These capabilities

include: service-related data processing and interpretation capability, execution risk assessment and mitigation capability, design-to-service capability, hybrid offering sales capability, and hybrid offering deployment capability. See Table 3 for definitions and linkages with sources of competitive advantage. The authors argue that these distinct resource and capability interaction can create the differentiation and cost leadership advantage necessary to succeed with a service infusion strategy centered on hybrid offerings (Ulaga and Reinartz 2011).

A noted example of this type of innovation can be found when manufacturing firms offer their customers “smart services”. These services are preemptive versus reactive and notify users before a critical piece of machinery or part is about to fail (Allmendinger and Lombreglia 2005). Armed with data from an embedded, installed base of customers that illuminates product use and performance data, manufacturers can proactively notify customers in advance when key performance pieces of their value-producing processes are about to fail. This ability to predict performance and signal problems is what the concept of “smart services” offers and what customer’s value.

Table 2

Summary of Definitions of Unique Resources of Manufacturer's

Unique Resources	Definition
Installed base product usage and process data	The stock of product usage and customer process data collected through a firm's installed base of good and/or used in customers' operations.
Product development and manufacturing assets	The stock of resources invested in a firm's R&D and manufacturing infrastructure. Product development and manufacturing assets are of tangible and intangible nature.
Product sales force and distribution network	The stock of resources tied in a firm's direct sales organization and channel intermediaries to cover its sales territory.
Field service organization	The stock of resources allocated to a network of specialized technicians aimed at deploying and servicing the firm's installed base.

From Ulaga and Reinartz (2011)

Table 3

Summary of Definitions and Sources of Competitive Advantage

Distinctive Capabilities	Definition	Source of Competitive Advantage
Service-related data processing and interpretation capability	The manufacturer's capacity to analyze and interpret installed base product usage and process data to help customers achieve productivity gains and/or cost reductions	Economies of skill & Economies of scale
Execution risk and assessment and mitigation capability	The manufacturer's capacity to evaluate the uncertainty whether contractually agree-upon outcomes will be realized and to design and implement safeguarding mechanisms to meet performance commitments while maintaining internal profit targets.	Economies of skill
Design-to-service capability	The manufacture's capacity to integrate tangible and intangible offerings elements synergistically to tap its potential for new revenue generation an/or costs reduction.	Economies of skill
Hybrid offering sales capability	The manufacturer's capacity to reach key decision makers in the customer organization, coordinate key contacts in the customer and vendor firms, sell value based on specific documentation and communicate tools, and align its sales force and the field organization and channel partners to grow revenues.	Economies of skill
Hybrid offering deployment capability	The manufacturer's capacity to rely on flexible platforms that allow for standardizing its ability to adapt to individual customers' needs.	Economies of scale

Adapted from Ulaga and Reinartz (2011)

HYBRID OFFERINGS

A hybrid offering represents a combination of one or more goods and one or more services that together offer more customer benefits than if the good and service were available separately (Shankar, Berry, and Dotzel 2007). Hybrid offerings are a critical component of a manufacturing firm's service infusion strategy. By combining their traditional goods with innovative services, firms seek to avoid the commoditization of their products and increase profit margins. There are important differences that distinguish hybrid offerings from pure goods and pure services. Researchers note that in a pure good or service most of the customer benefit is derived from the newness of the good or service (Shankar, Berry, and Dotzel 2007).

However, these authors continue, in a hybrid offering the customer benefit is derived from the way these products and services benefits are combined. In addition, with pure goods, scalability is achieved by producing large quantities that reduce the cost per unit. In pure services, scalability is derived from obtaining large revenues at lower unit cost per employee. This compares with the scalability for a hybrid offering that is created by uniquely combining the goods and services in such a way that with larger volumes, the total unit costs per good and employee is reduced.

Therefore, a hybrid offering's profitability will increase as organizations learn to replicate the business practices that create these hybrid offerings at a lower cost per good and employee. One way firms do this is through the learning effect realized as managers learn how to create hybrid offerings and transfer the best practices throughout their

organization in order to realize the economic benefit of efficient hybrid offering transfers across customers.

The creation of hybrid offerings is a process. Unlike pure goods and pure services that exist as prepackaged modules where the resources required to deliver customer value are already known, hybrid offerings involve a good deal of integration and customization as the source of their value (Sawhney 2006). Literature on hybrid offerings has expanded this view and has called upon researchers to consider hybrid offerings from the customer point of view (Tuli, Kohli, and Bharadwaj 2007). This work, which was based on an extensive qualitative study of managers, explains that customers view hybrid offerings as much more than a combination of products and services but as a set of four relational processes that include: customer requirements definition, customization and integration of products and services, deployment, and post-deployment support. This work extends our understanding of hybrid solutions by taking into account the relationship between the firm and the customer. The customer becomes the focal point from which hybrid offerings can be more fully understood.

The creation of hybrid offerings fits well with the proposed service dominant logic that treats value as something that is co-created with the customer to become value in use (Vargo and Lusch 2004b). It is only when the hybrid offering is put into use by the customer that value is created. From this perspective hybrid offerings emerge from an interactive process of needs definition and customization that incorporate a greater understanding of a customer's broader business needs and operating environment (Tuli, Kohli, and Bharadwaj 2007). This new proposed view of hybrid offerings clearly puts the customer at the forefront of any analysis that seeks to discover the factors involved in

transferring hybrid offerings to new customers. With a better understanding of the nature of hybrid offerings, we now move into the subject of how firms successfully replicate them.

REPLICATING HYBRID OFFERINGS

Research suggests that some companies are more successful than others at providing effective hybrid offerings and achieving profitable goals (Hancock, John, and Wojcik 2005). Successful firms take these hybrid offerings and successfully transfer them from one customer to another at a profit. Though one study of sixty service solution providers discovered that three out of four companies saw small gains from a hybrid offering strategy (Johansson, Krishnamurthy, and Schliissberg 2007), the financial returns did not justify the investment required to enter into the service infusion business (Young 2008). These studies support the notion that successful hybrid offering selling is difficult for companies to do correctly, let alone profitably. One may speculate that some firms were not as successful as others because they were not able to efficiently transfer the hybrid offerings they had created for a particular customer to a different potential customer. Understanding the underlying mechanisms through which successful firms transfer these hybrid offerings and identifying which relational characteristics predict success would benefit practitioners and provide a broader understanding of knowledge transfer theory.

Firms who enter the hybrid offering selling business have challenges to overcome. Supporting a large group of firm employees that comprise a typical hybrid offering selling team can be a sizeable investment for any firm (Young 2008). The high cost involved places pressure on management to quickly earn ‘economies of repetition’, the

ability to leverage existing business assets to earn profit for the firm (Davies and Brady 2000). This efficiency can be achieved by putting in place organizational routines and learning processes that allow them to deliver on a number of similar sales opportunities but at a lower subsequent cost, thereby increasing profitability (Davies and Brady 2000). Learning is often described as a process by which repetition and experimentation enable tasks to be performed better and faster (Teece, Pisano, and Shuen 1997). Teece, Pisano, and Shuen (1997, p. 520) assert that “learning processes are intrinsically social and collective” phenomena and what individuals learn reflects the social context in which they learn it and are able to put it into practice (Brown and Duguid 2001). One way of investigating these collective processes and how they might influence solution transfer is by examining the social relationships that exist in these companies (Reagans and McEvily 2003; Reingen and Kernan 1986).

KNOWLEDGE AND KNOWLEDGE TRANSFER

Past research has emphasized that the ability to create and efficiently transfer knowledge is fundamental to a firm’s competitive advantage (Kogut and Zander 1992). Organizations that are able to transfer knowledge effectively from one unit to another are more productive and likely to be more successful than competing firms (Argote and Ingram 2000). Knowledge embedded in a hybrid offering can serve as a primary resource from which a company can also derive a competitive advantage. The hybrid offering knowledge can be transferred from one customer context to another. The amount of times this hybrid offering knowledge is theoretically transferred across customers represents the period from which the hybrid offering knowledge provider can earn economic rents from the hybrid offering knowledge (Spender and Grant 1996).

While there is wide agreement that effective knowledge transfer is a key ingredient to a firm's success (Lippman and Rumelt 1982), past research has not explored the processes or underlying mechanisms through which knowledge transfer occurs in organizations (Argote and Ingram 2000). Please see Figure 2.

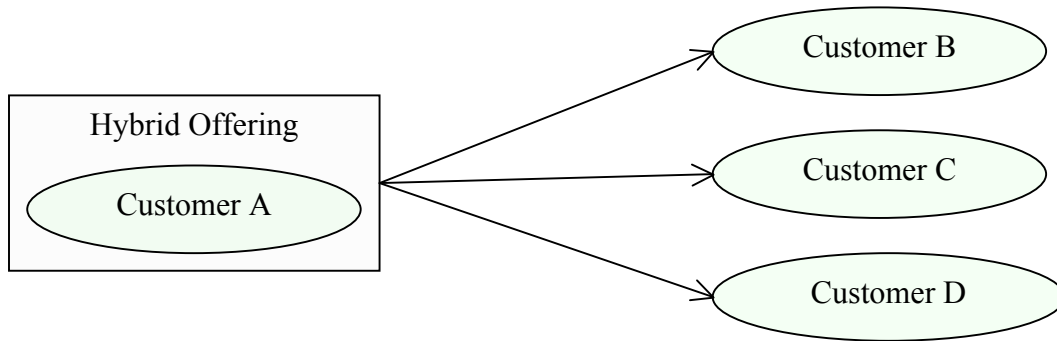


Figure 2. Replication of Hybrid Offerings Across Customer Engagements

The replication of knowledge learned from one situation to another involves transferring competences from one concrete economic setting to another (Teece 1998). This is where the paradox of replication comes into play. By realizing the advantages of successful knowledge transfers, a firm is risking imitation since the knowledge has obviously been able to be replicated within its own organization and thus can be potentially imitated by a competitor (Kogut and Zander 1992; Zander and Kogut 1995). In a service infusion context, a firm's competitors cannot successfully replicate their hybrid offering knowledge, or the knowledge embedded in an existing customer hybrid offering, because the hybrid offering knowledge is tacit and difficult to explicitly codify. When companies want to transfer their hybrid offering knowledge, the challenge for management is to overcome the same dilemma that their competitors face (Spender and

Grant 1996). How do firms reproduce a successful hybrid offering? The tacit nature of some types of knowledge hampers successful replication. As Polanyi (Polanyi 1962) explains, humans know more than we can articulate, as such we need to understand the un-understood (Nonaka and Krogh 2009). Despite these challenges, firms will need to develop strategies for how to successfully replicate hybrid offerings in order to increase the overall profitability expected with a service infusion strategy.

Although there has been some past research that has explored how innovations are transferred successfully within an individual firm (von Hippel 1994; Szulanski, Cappetta, and Jensen 2004), little attention has been given to studying knowledge transfer in a hybrid offering context. The mechanism with which firms create and transfer these hybrid offerings in an economically viable way can be instrumental for a manufacturer that is pursuing a profitable service infusion strategy. By examining the hybrid offering transfer process through the theoretical lens of *sticky* knowledge, this research will create a conceptual framework to analyze how firms can successfully transfer a hybrid offering from one customer setting to another. There is a need to explore the conditions under which knowledge is embedded in various reservoirs within a firm (Argote and Ingram 2000) and to understand the mechanisms through which successful transfer occurs (Jensen and Szulanski 2007b).

For example, often these hybrid offerings require long engagements with continual interaction (Davies, Brady, and Hobday 2006). Because of these type of firm-to-client engagements, solution-provider sales personnel often gain deep insights into their customer's operational environment, offer political advice on how to advance the project and will even make changes to their internal processes in order to best position

the hybrid offering with the customer (Tuli, Kohli, and Bharadwaj 2007). This overall knowledge of the hybrid offering engagement resides within the experiences of key firm personnel and become a key source of the firm's competitive advantage (Sheth and Sharma 2008).

A central tenant of the knowledge-based view of the firm is that knowledge is embedded and carried through multiple firm entities such as culture, identity, policies, systems and organizational routines. As such, knowledge is primarily created by individuals (Nonaka and Lewin 1994). The knowledge of how to create hybrid offerings is found in the people, processes, and organizational routines of the firm. Knowledge transfer refers to the efforts of a source to share information and know-how with a receiver and the receiver's efforts to acquire and apply the knowledge (Phelps, Heidl, and Wadhwa 2012).

Grounded in past conceptualizations of knowledge transfer, the term transfer as opposed to diffusion is used here to emphasize that transfers are a distinct phenomenon and not a gradual process of knowledge dissemination that depends on firm-wide characteristics (Szulanski 1996). Szulanski explains transfers of practices as follows:

Transfers of best practice are thus seen as dyadic exchanges of organizational knowledge between a source and a recipient unit in which the identity of the recipient matters. The exchange of organizational knowledge consists of an exact or partial replication of a web of coordinating resources so that a different but similar set of resources is coordinated by a very similar web of relationships (Szulanski 1996, p. 28).

Utilizing the conceptual lens described by Szulanski (1996), best practices can be conceived as organizational routines.

Some researchers have argued that the creation and transferability of knowledge in organizations are the foundation for competitive advantage in firms (Argote and Ingram 2000; Mesquita, Anand, and Brush 2008; Spender, J. C.; Grant 1996). This work emphasizes the importance of the knowledge transfer processes. Knowledge is understood to embody a variety of dimensions and forms the basis of firm differentiation (Leonard-Barton, 1992). The knowledge embedded in organizational routines is considered knowledge assets that serve as the source of the competitive advantage (Teece, Pisano, and Shuen 1997). These routines can be difficult to quantify and transfer. A hybrid offering consists of a distinct form of knowledge that is embedded in organizational routines. Once a hybrid offering is successfully implemented for a specific customer, it can become a template for use with different customers that face a similar complex business challenge (Jensen and Szulanski 2007).

A business practice refers to an organization's routine use of knowledge that is embedded in individuals and their social interactions (Szulanski 1996). The strategies pursued to transfer best practices within the firm include: the movement of personnel within the firm (Galbraith 1990), the movement of firm's tools and technology (Epple, Argote, and Devadas 1991), and finally, the transfer of organizational routines (Szulanski 1996). Of these strategies, the movement of routines seems to be the most promising (Argote and Ingram 2000). It is therefore appropriate to center on the interactions that take place within the firm and customer organization because it is in these replication

attempts that both organizations share valuable resources such as key personnel, technology, and processes for implementing hybrid offerings successfully.

STICKY KNOWLEDGE

Hybrid offerings are created by a set of organizational routines that firms employ with a customer in a co-creative process. These organizational routines represent a form of knowledge that firms draw upon in order to understand which practices to enact for specific hybrid-offering value propositions. Drawing on Szulanski's (1996) model of sticky knowledge, a hybrid offering (knowledge being transferred) is conceptualized as products and services combined into innovative offerings (Ulaga & Reinartz, 2011) that are transferred from one hybrid offerings project team (source of knowledge being transferred) to another (recipient of knowledge being transferred), within the same selling firm (organizational context), and from one customer engagement to another.

In the following discussion, Szulanski's (1996) sticky knowledge theory breaks down the factors that inhibit the free flow of ideas and knowledge transfers within the firm by exploring the characteristics of the knowledge transfer process. Von Hippel (1994) observed that the incremental cost of transferring a given unit of information in a form usable by the recipient is higher for sticky knowledge than for other types of information. Stickiness is also described as an attribute of a particular transfer of knowledge, which would include both the characteristics of the transfer environment and those of the knowledge being transferred (Szulanski 1996). Sticky knowledge theory describes factors that inhibit the transfer of knowledge. These factors are classified as

knowledge barriers and include: causal ambiguity, a lack of motivation, absorptive capacity and credibility, and the context of the exchange.

The knowledge barriers are expanded here in greater detail: (1) causal ambiguity of the solution. This would entail understanding the factors that lead to a successful solution. The ability to know what you know and how you know it (Szulanski 2003), (2) a lack of motivation from the source (the original source project team that developed the hybrid offering) or recipient (the recipient project team who wants to sell the original hybrid offering to a different customer). The agendas of these two entities may not be in line and there might be a reluctance to look for hybrid offerings outside the team, i.e. not invented here (NIH) syndrome (Katz and Allen 1982), (3) a lack of absorptive capacity of the recipient (the recipient project team who wants to sell the original hybrid offering to a different customer). This represents the hybrid offering project team's ability to know what it knows (Cohen & Levinthal, 1990; Szulanski, 2003), (4) the context of the transfer itself. This describes the nature of the relationship between the source (the source project team) and the recipient (the recipient project team) (Szulanski 1996). The nature of the relationship is examined here with factors pertaining to the pre-existing social ties and relational processes or drivers between the source and the customer (Palmatier 2008a). The context of the transfer will also include the nature of the relationship between the recipient project team and their customer. Collectively, these factors represent some of the knowledge barriers that may inhibit the transfer of information flow between members of the exchange.

Szulanski (1996) proposes that the degree to which knowledge can be successfully transferred within a firm is affected by characteristics of the source and

recipient of the knowledge, the knowledge itself, and the context of the exchange. The source of the knowledge in our framework is the firm project team, marketing group or other firm entity that originally created the first version of the hybrid offering and is attempting to copy and transfer it to a different customer of the firm. In order for hybrid offerings to be successful, companies need to replicate them across their customer base in order to realize the efficiencies needed to support the significant investments required for the co-creation of hybrid offerings (Brady, Davies, and Gann 2005). Although hybrid offerings require a certain degree of customization to a specific customer's environment (Tuli, Kohli, and Bharadwaj 2007), research has shown that those firms who can successfully leverage these newly created hybrid offerings and offer them to new and current customers are the most successful (Davies, Brady, and Hobday 2007).

The recipient of the knowledge is the project team who is taking the original hybrid offering and attempting to implement it at a different customer. Please see Figure 3. Hybrid offerings rest on organizational routines that a project team must develop and repeat successfully in order to resell the hybrid offering to a different customer. The recipient project team enacts these routines in conjunction with the customer so that they can together co-create the hybrid offering. The knowledge characteristics of the recipient are an important characteristic that can lead to successful knowledge transfers. For instance, the ability of the recipient project team to understand and evaluate the routines used is directly related to their prior knowledge. Knowledge characteristics of the customer also affect the degree to which knowledge can be successfully transferred. For example, a successful transfer hinges on the degree to which a customer has sufficient knowledge to convey to the project team what their business challenges are, their

operational environment, and any other pertinent factors that can affect the success of the hybrid offering process (Tuli, Kohli, and Bharadwaj 2007).

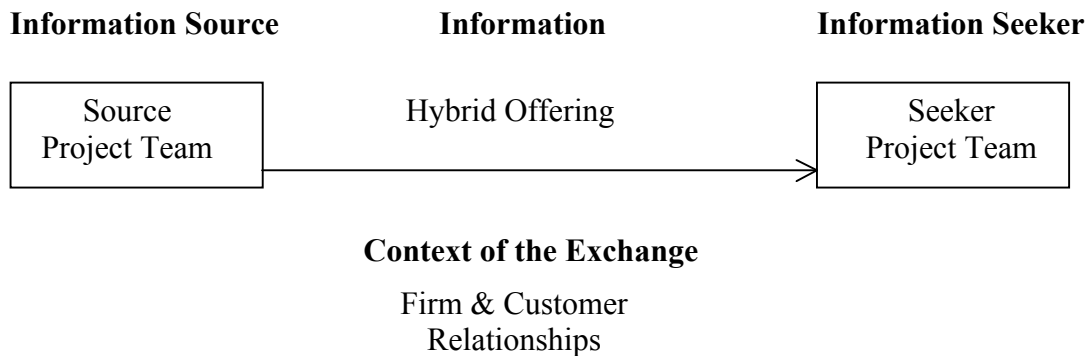


Figure 3. A Conceptual Model of Hybrid Offering Transfers

The knowledge being transferred embodies the organizational routines that led to the development of a specific hybrid offering. The practices are enacted by project team members together with the customer and follow a reiterative process in which a firm’s products and services are combined into an innovative value proposition for the customer. The knowledge transfer literature notes that the exact causal factors of success or failure are not always known (Lippman and Rumelt 1982). This ambiguity concerning the crucial parts of the organizational routine that underlie hybrid offerings is an identified barrier to the transfer of knowledge (Szulanski 1996).

Finally, the context of the exchange can be conceptualized by the quality of the relationship that exists between: (1) the source and recipient or seeker project teams and (2) the recipient account team and customer. Arduous relationships between the actors, in this example the source and recipient project teams, involved in knowledge exchange can impede the successful transfer of knowledge (Szulanski 1996).

Summary

This chapter provides a review of the literature on service infusion. The early literature centered on the benefits and risk associated with pursuing a service infusion strategy (Bharadwaj, Varadarajan, and Fahy 1993; Vandermerwe and Rada 1988). Although this literature is still in its infancy, several conceptual advancements have been made. A noted advancement was the development of a continuum of services that range from those that are more product versus those that are more customer oriented. This conceptualization allowed for a better understanding of the associated capabilities and challenges associated with different positions on the continuum (Mathieu 2001b; Zeithaml et al. 2014). Another contribution advanced by researchers described how customers have a more sophisticated view than suppliers of what constitutes a service solution (Tuli, Kohli, and Bharadwaj 2007). Tuli, Kohli, and Bharadwaj (2007) argue that this more relational-centered conceptualization of service solutions can lead to a deeper understanding of how customer characteristics influence service solution success. Another further refinement in our understanding of hybrid offerings goes beyond classifying hybrid offerings as either provider-good centered or customer-process centered (Ulaga and Reinartz 2011). Ulaga and Reinartz (2011) classified hybrid offerings to the extent to which the supplier promises to perform a deed or achieve a performance outcome. These authors highlighted the distinctive resource and capabilities manufacturers have for deploying successful service infusion strategies. A review of the literature on knowledge transfer and sticky knowledge provides the foundation for a proposed framework from which a new conceptualization of the challenges associated with successful hybrid offering transfers.

While progress has been made in advancing our conceptual understanding of hybrid offerings and the challenges associated with their transfer across customer engagements, this dissertation will play a critical role in contributing to our conceptual understanding of this process. By applying theories from the strategic management literature in conjunction with insights from two qualitative studies I will propose a conceptual framework, with associated propositions, that can serve as the foundation for a quantitative study that will further advance our understanding of hybrid offering transfers.

CHAPTER 3

SERVICE INFUSION CHALLENGES

Methodology

Phase one involved depth interviews with high-level executives in five manufacturing firms infusing services to explore and identify insights, approaches, and special challenges associated with service-infusion strategy implementation.

Given the early state of development in the domain of service infusion, adopting a discovery-oriented, qualitative approach to explore the domain of service infusion is an approach taken by past researchers (Flint, Woodruff, and Gardial 2002; Glaser and Strauss 1965; Morgan, Anderson, and Mittal 2005; Tuli, Kohli, and Bharadwaj 2007). Qualitative methods have been shown to provide a strong foundation for understanding other complex marketing phenomena, such as the series of events involved in new product development (Moorman and Miner 1998), the development of market charters (Houston et al. 2001), or the creation of a market orientation (Gebhardt, Carpenter, and Sherry 2006; Kohli and Jaworski 1990).

For phase-one, interviews were conducted with executives from Fortune 100 business-to-business, manufacturers that are in the process of infusing services into their corporate strategies. Each was a goods-dominant company that had one or more divisions of the firm moving aggressively to incorporate service strategies. The five companies represented the following industries: heavy equipment, healthcare supply, building products and technology, aerospace products, and multi-product/diverse manufacturing. All five companies have very long histories in manufacturing and/or distribution and all are relatively new to services as a corporate strategy. For all of them,

the transition from goods to services represents a major cultural and organizational change.

In each business, a lead executive was identified who had either been directly involved in or was currently involved in forming a business unit to provide business-to-business services in the firm. This executive, in turn, identified 4-6 other executives or upper-level managers in the service division or other divisions of the business to participate in the study. A total of twenty-eight interviews were conducted across the five companies. A telephone interview of 90 minutes was arranged with each interviewee. In advance of the interview, each interviewee received an e-mail explaining the study and an interview guide containing a high-level set of questions to be discussed (see the Appendix A). The version of the interview guide sent in advance was limited to general topics and did not contain the detailed probes that would later be asked by interviewers.

The interview guide contained open-ended questions of two types. First, general questions were posed about service infusion on topics such as the types of hybrid offerings the company offers or plans to offer; which services have been successful and unsuccessful; and the key lessons the executives learned in transitioning to services. Next, specific questions were asked about each of the identified dimensions captured from the literature review. These included key challenges, capabilities, the level of customization provided and their replication strategies and outcomes.

At least two researchers participated in all telephone interviews. Due to the strategic nature of the interviews, and to preserve confidentiality, the interviews were not recorded. Rather, in each interview, one researcher asked the questions while taking

notes and the second researcher took more extensive notes on the answers to the questions. Thus, two sets of notes were available for each interview. These were then transcribed, reviewed by both researchers, and finalized as one integrated set of notes for each interview. Having two researchers involved in every interview allowed for a convergent perspective to be developed that enhances the validity of the findings. The convergence helps empirically ground the findings and improve the chances of uncovering novel insights (Eisenhardt 1989).

Following an approach refined by Eisenhardt (1989), the interview results were compiled and individual interviews were analyzed to identify relevant themes. These themes were then compared across interviews and companies and anchored on the constructs identified in the previous literature review. This synthesis resulted in insights regarding the constructs themselves as well as managerial insights into approaches used and challenges faced while infusing services. In exploring the constructs identified in the literature review phase, a search was conducted to ascertain similarities and differences based on the industry within which the firm competes as well as the firm's level of advancement in the service-infusion life cycle (Eisenhardt 1989). All of the literature notes were shared and reviewed by the researchers with the goal of identifying challenges, managerial insights, and research issues for each construct within and across the sets of company interviews. The interviews also provided an opportunity to test and enhance the foundational service infusion framework and to clarify definitions that were uncovered in the literature review phase of the project.

Initial findings on the challenges and managerial insights were shared with the five companies in two webinars: one for executive sponsors, and one for all interviewees.

This step allowed for clarification, validation, and enhancement of the findings by study participants. The continual iteration between the framework, constructs, and data analysis combined with the sharing of the findings with the study participants allowed the researchers to achieve saturation, a point where the iteration process failed to yield substantial improvement to the framework or its implications (Eisenhardt 1989).

CHALLENGES

In this section, a description is provided of the major challenges and constructs derived from executives interviews with participating companies. For each of the challenges, pivotal issues are defined, the approaches the companies used to address the issues are detailed, and the key insights are highlighted. The term challenges is used here as an overarching term that describes the difficulty and obstacles firms face as they infuse services. Although the interviews yielded a variety of constructs and themes, the focus here will center on four: (1) capabilities, (2) customization, (3) hybrid offerings, and (4) replicating hybrid offerings. By narrowing our attention to the constructs and issues related to these four themes, there is a greater opportunity to explore and gain insights on the particularly challenging issue of replicating hybrid offerings that emerged in these interviews.

CAPABILITIES

The capabilities of employees, especially those closest to the customer such as salespeople, service technicians, and delivery personnel—are critical to service infusion. The interviews clearly revealed that firms face daunting challenges with finding and developing sales and delivery personnel with the right skill set. This issue related to how the companies chose to invest in their operations. One respondent stated:

It takes time to get the resource commitment for services. Early on we had resourcing challenges because our internal budgeting process is set for products; there wasn't a clear understanding of the need for people and investment in people that drives a consulting practice in the company.

Identifying where the skill set or experience lies in the firm can be a major challenge as firms seek to infuse services. Hybrid offerings require the contributions of more than one member of the supplier firm and the level of skill set and professionalism required for hybrid offering is much higher than that for standard products (Brax 2005). For example, a manufacturing executive noted:

We have learned that our people must be top notch in terms of industry expertise and relationship building skills. To be effective with services, we need people with a deeper knowledge of markets and customers, as well as great communications skills.

Another executive in the construction industry summed it up well and stated:

One of the most important lessons learned in implementing solutions revolves around our people. Over time, we realized the need to build relationships with people at all levels of the client organization. This is critical to being effective (i.e., enacting successful change for clients) in our solution efforts. Our people must be top notch in terms of industry expertise and relationship-building skills; this is particularly true at the execution stages and this has become our competitive advantage.

Boundary-spanning skills

The boundary-spanning personnel of the company need to have the ability to listen, absorb new information quickly and apply it in a meaningful manner for customers. This challenge proves even more difficult when the personnel responsible for the performance aspect of the hybrid offering need to engender resources and support across the various business units of their firm and across the customer's organization (Gulati 2007; Marrone 2010). These teams possess the deep-seated knowledge and experience needed in order to develop innovative hybrid offerings. However, sometimes these existing ways of doing things and preconceived notions about what a customer may need can also lead to rigidities that limit a team's ability to co-create innovative value propositions (Leonard-Barton 1992). This sophisticated combination of a specialized skill set, relational capabilities, and an open mind-set is difficult to find among employees in a traditional product-focused firm. Many of these themes were reflected in the following statements echoed from several executives:

We still need to break down silos, provide more role clarity for our people and do a better job of knowing how we can help customers.

Our separate unit has a different culture-more client focused, quicker to make decisions than the rest of the organization.

These boundary-spanning personnel, who often times include key service delivery personnel, are also critical to service infusion success. Research indicates that the functions of sales and service delivery need high levels of coordination and alignment (Krishnamurthy, Johansson, and Schlissberg 2003; Zeithaml et al. 2014). This mirrors similar insights gained from the sales-marketing interface literature (Antioco et al. 2008;

Gebauer and Friedli 2005; Homburg and Jensen 2007). This literature states that being entrepreneurial, strategic and capable of building long-term relationships with customers are important skills and this was found in the interviews as well. In fact, the executives noted the importance placed on meeting commitments or delivering on promises made to customers in developing solutions (Cohen, Agrawal, and Agrawal 2006) but highlighted and gave prominent attention to the tearing down of functional barriers. As one executive noted:

Managing customer solutions is new and has been met with some resistance inside our company. We still need to break down silos, provide more role clarity for our people and do a better job of knowing how we can help customers. For example, marketing and finance have worked well together to develop useful metrics as we expand our offerings. There needs to be a strong link between different work groups and units. This is a big focus for us.

Sales capabilities

Another prominent issue related to service infusion is the need to address the sales capabilities of the organization. The hiring of salespeople with the right skill set, or the training of existing salespeople to effectively sell hybrid offerings, represented a challenge for all of the companies interviewed. Interviewees stated that as they moved to hybrid offerings, many product-focused salespeople became ineffective. A key reason identified is that explaining complex services or solutions is very different from communicating attributes of tangible goods. One interviewee observes,

It is hard to demonstrate the value of services to customers. Selling the invisible or conceptual is a tougher sell, as is tying services to long-term customer value.

The respondents revealed that selling hybrid offerings is more complex and strategic, and requires longer sales cycles. Therefore, salespeople need a deeper understanding of their own company's intangible competencies, not just their physical products, and how these competencies provide value to their customers. One executive asserted:

People don't fully understand that to be a service business you need to know customers better than they know themselves and must truly understand what makes them successful.

As opposed to traditional salespeople, who typically form relationships with one part of the business, the ideal hybrid-offering salesperson aligns with other colleagues across units within his or her firm to address customers' concerns. As emphasized by one of the interviewees:

The capabilities of sales people are the biggest limitation for our growth. Most are unable to do consultative selling and offer customers' outcome-oriented proposals that address their key performance indicators (KPI's).

Engaging with customers and their strategic challenges typically requires salespeople who are more sophisticated in terms of relationship skills and knowledgeable about not just their company's core products and services but their industry as well. An interviewee stated:

We need new competencies and capabilities in terms of personnel so we can successfully sell and deliver solutions. People who understand operating excellence have become more critical. People who understand the hospital supply chain—in general, people with experience, intelligent, and who are “people savvy” to work with customers to build these solutions. We need people

who can sit down and display high-level employee education—on selling, methods & procedures, project management, product detail, etc.

Selling hybrid offerings requires salespeople to call on buying influentials in the customer organization who are higher in the corporate hierarchy than when selling goods (Reinartz and Ulaga 2008). Decisions about advanced services are often made at a higher level in the customer's hierarchy. The highest levels of top management would necessarily make decisions about integrated product-service solutions because the hybrid offerings are related to strategic problems that have long-term implications for the company. This was captured in our interviews and represented here with the following observation:

We need to call on the C-suite because only at that level do they understand the full breadth of the value offered by our services.

Further, in selling hybrid offerings, salespeople need to become their clients' trusted advisers. Rather than pushing their own company's products, trusted advisers make unbiased recommendations about achieving solutions that are best for the customer even when these recommendations include competitors' goods and services (Neu and Brown 2008).

Overcoming the capabilities challenge

The interviews demonstrated that in order to succeed with service infusion, one of the necessary strategies is to build knowledge management systems to share solutions across the company. The firms interviewed sought to “webify” services where possible, yet enable customers to access live talent. At times, this takes the form of a customer

relationship management (CRM) system that develops technology-driven intimacy with clients. CRM systems were also useful in scaling services. Interviewees stated:

A key competency needed is knowledge management that attempts to capture and share our growing knowledge and expertise.

And:

A relatively new Services Council now exists with a goal of breaking down the silo orientation of the units and stimulating growth through more unit collaboration.

These systems not only serve as a platform from which to share key insights and knowledge about a specific hybrid offering across units but these new processes can also help break down silos and bring disparate organizational units together. Sometimes a new position is created in the firm that is focused on integrating firm assets:

We are looking to develop a new position called 'Solution Architect'. This person will be able to look broadly across the consulting practice and put together solutions for clients working from the outside in.

Our interviewees noted that it is difficult for many sales and service delivery people to shift to hybrid offerings:

60 percent of sales people cannot be successful selling services – some are unwilling, others are incapable:

Salespersons are being replaced or restricted to selling only services that are more focused around a core product offering. Those interested and capable of succeeding with higher level service offerings, like hybrid offerings, need to be provided with quality training and coaching coupled with special incentives. The interviews pointed to fact that

the growing importance of service delivery is leading firms to recruit and retain people with deep technical knowledge. They are subsequently trained in the customer-focused and relationship oriented skills that are needed for higher-level service delivery.

Many of the participating companies provide ongoing training about key customer segments and issues specific to targeted customers' industries. The interviews uncovered the importance of developing professional consultative selling capabilities in order to be able to communicate with customers higher in the organization. This requires acute listening skills, interpersonal adeptness, collaboration and the ability to think on one's feet.

The analysis of the interviews identified that moving to service infusion requires personnel with different capabilities in provider organizations. This occurs because the services involved are more strategic and by their nature often have a more pronounced impact on the customer organization. Delivering hybrid offerings requires a major assessment of and likely major adjustment to a goods-dominant firm's sales capabilities. Simply assigning existing people the task of growing higher-end services is likely to prove unsuccessful. Instead, company leadership must assess who among current sales and service delivery associates has the interest in and the ability to grow into the more complex roles required by service infusion. And, once these people have been identified, the organization must make a significant commitment to training and incentivizing these employees to drive services success.

CUSTOMIZATION

The issues relating to customization were centered on: (1) balancing customization with standardization; (2) gaining efficiencies through standardization; and (3) ensuring quality in the delivery of service through employees.

One of the most important issues identified by these companies involves balancing customization and standardization to benefit both the customer and the company. Believing that customizing services is necessary—customers insisted on it--firms in the study often initially customized more than was either required or financially prudent.

A fact associated with developing hybrid offerings is that each client perceives their needs as distinct. Even if a supplier specializes in an industry, and has multiple clients in that industry, what each client requires depends on variables that are unlikely to be uniform. This customization will likely be the case with large complex hybrid offerings that span multiple geographic locations across the customer organization's business.

Offering the high levels of customization desired by clients of complex hybrid offerings can be worthwhile to suppliers when serving customers that are large, profitable, or represent significant potential for the company's growth (Anderson and Narus 1995). However, customization for all clients is expensive, unnecessary, and even undesirable. Interviewees acknowledged that one of their biggest issues with service infusion involved understanding how to balance standardization and customization to maximize both firm and customer value. An interviewee observed:

With regard to services, we start small and then build to larger commitments as customers get to know us and the value of our services over time.

One of the dominant findings in each of the companies interviewed is the need to limit the number and type of services offered. Firms need to realize that not all services that customer's request can be offered. It is in this area that strong customer-facing personnel, such as salespeople and service delivery personnel, can offer value by using their deep insights of customer's operating environment and business model and close personal relationships to either steer customers to more off the shelf solutions or apply company resources that can perform in a cost efficient manner (Anderson and Narus 1995; Tuli, Kohli, and Bharadwaj 2007).

Past research has demonstrated the benefits of being responsive to customer needs (Donavan, Brown, and Mowen 2004) and these findings were reinforced in the interviews as well. Yet, sales and service personnel often agree to requests from customers which ultimately result in costly and unprofitable offerings, frequently unique to just one customer or one contract. This type of customization was viewed by our interviewees as undesirable and not in the best interest of the company.

All of the companies spoke of the need to standardize some elements of the service, even for complex hybrid offerings. In addition to the obvious cost savings, standardization is pivotal to providing consistency and quality in service delivery. When employees perform services, companies must incorporate standards into the workflow of frontline associates by providing shared tools and processes. As service companies and researchers have long understood, careful service designs and standards are needed to

assure that employees across the organization deliver the same type and level of service (Zeithaml, Bitner, and Gremler 2009). As noted by an interviewee:

We need to understand customer needs first and then figure out which offerings work best for them. We listen, then match what the customer needs with the capabilities we have that fit.

Overcoming the customization challenge

Consistency is not something that can be built into services as easily. Service delivery, however, must be made consistent by implementing clearly communicable service designs and processes. Therefore, companies must develop approaches that assure that sales and service personnel are behaving and performing consistently. The interviewed companies emphasized the need to codify content and methodologies across the organization and to standardize the training offered to contact personnel. It is only through codifying the hybrid offerings into modules which can be configured for each individual client that efficiencies can be gained (Billington 1997; Sawhney, Wolcott, and Arroniz 2006). In support, an executive stated:

Our solutions are made up of an array of modules and options within each module that we can draw from. And, if need be, additional tweaks can be made. Every site is different, so we have to put the modules together in a different way for each client.

Both customization and standardization have benefits, and companies need to customize without losing the efficiency benefits of standardization, but also standardize without losing the customer-centric benefits of customization. The interviews confirm what is found in the literature. In considering a new higher-end service of interest to

clients, the company can develop “first of a kind” new services or solution for lead users. Once this service has been successfully developed and implemented with a lead user, the provider can consider replicating and adapting it to other customer engagements. A healthcare executive noted:

We will work with one large customer to prototype and field test the solution and then, if successful, package and roll it out to other customers.

To balance the demand for customization with the internal need for standardization, the respondents talked about creating modular units that can be assorted and matched in unique combinations by associates working with each customer. Offerings can be developed and composed of modular units that are consistent, easy to understand, and easy to assemble into customized solutions. In this way, contact personnel can select pre-developed service “components” from an existing portfolio rather than developing customized services for every new project or client. This modular approach cuts costs and improves the reliability of the integrated services and solutions. The service modules are revised as needed to improve the process of selling and delivering solutions. In addition to modules, interviewees described processes, value maps, templates, frameworks and many other types of standardized elements that were useful in this process. Two companies used lean six sigma and another applied service blueprinting (Bitner, Ostrom, and Morgan 2008) to standardize elements and to continually improve them.

The respondents indicated that making employee-delivered service consistent is challenging, but each of the firms have developed approaches that proved to be successful. One company created an excellence center, whose sole focus was to create

consistency in practices and delivery processes, then implement these activities throughout the company. Another developed standard e-learning modules to replicate delivery and knowledge across the firm. Another found that outside firms with consulting or advising experience had developed mechanisms for training associates to perform consistently; by hiring from some of these firms, this company learned their techniques. Another approach was to develop processes, templates, and tools to ensure a level of consistency for sales managers. An executive respondent noted:

We customize by combining modules in unique ways and in terms of using industry and client terminology. However, we require that customers accept certain basic, fundamental elements and methodologies; otherwise they risk tarnishing our brand if customers take short cuts or only want certain pieces of what we offer.

Although research indicates that firms will struggle with customization as they move into services (Ploetner 2008) the companies in this study had been successful in balancing customization and standardization. They developed a strategy of customizing customer-facing activities such as problem definition and standardizing back office elements or modules to create hybrid offerings. To effectively customize services, contact personnel were trained to listen carefully to assess customer needs and to develop a clear understanding of their issues, industry, and company. They were then able to match standardized modules of back-office capabilities to address these needs. Selected modules were assembled as necessary to meet the unique needs of the client.

CUSTOMERS

One of the most interesting themes uncovered throughout the interviews concerns issues that surround customers. The service infusion literature discusses in detail the importance of customers as firms develop hybrid offerings (Fang 2008; Palmatier and Steenkamp 2008; Prahalad and Ramaswamy 2000). But although the importance of involving customers with innovation processes and getting closer to them in order to understand their latent needs came through in the interviews one of the most interesting findings centered on the notion that it is important to get your customer to come around to your way of thinking and share your mind-set. As one interviewee observed:

Our biggest challenge is still to get the customer mind-set into our way of thinking. While everyone likes to talk about the customer and the value of the customer, until you are in a service business where your lifeblood depends on growing your customer's business value, you don't fully appreciate what it means to be customer oriented.

Interviewees also stressed the importance of knowing a customer's business. One manager noted:

People don't fully understand that to be a service business you need to know customers better than they know themselves and truly understand what makes them successful

Several of the managers interviewed did indicate that they incorporate a customer logic when they think about where to target their most lucrative hybrid offerings. One manager noted:

We offer highly customized solutions for certain large strategic customers and this entails a production-capability service where we basically guarantee uptime of equipment or increased productivity of equipment. Our other two smaller segments of customers are medium-term customers with whom we have had relationships with for 3-7 years and small-urban customers whom we work with for a few weeks or months.

When asked, interviewees explained how they collaborate with customers through basic customer satisfaction surveys, focus groups, interviews, and other voice of the customer (VOC) approaches to gain feedback to improve and to uncover ideas for new offerings. Despite a strong belief in the value of gathering customer input, the interviewees were unsure how to identify the “right” customers for an offering, how to dedicate the needed time and resources for customer collaboration, and how to develop collaboration competencies in sales and other frontline professionals.

The managers indicated that aligning customer expectations at the beginning of the project with what will ultimately happen is difficult for a number of reasons. For example, the ultimate service offering may look very different from what was tested or initially discussed with the customer, or it may not be offered at all. Finding the right customers to involve in this type of concept and prototype testing effort can be challenging. As one firm put it:

Sometimes we're engaging the wrong customers for tests and pilots. For various reasons, these customers weren't clear that they were part of a test and they are disappointed when the service isn't actually offered or fully implemented in the end.

Another added the following:

In the end you risk alienating those whose ideas you don't use, so this requires time and hand holding to explain to them and help them understand why you didn't use their ideas.

Overcoming the customer challenge

Several of the customer-centered strategies that the companies employed included client advisory boards, end-of-project reviews, user conferences, prototype testing and one-on-one interviews (primarily through sales people) to delve into customer pain points that might be addressed with new services. All five companies used variations of these basic types of customer participation with some engaging in the activities more than others. All saw the value of gathering customer feedback for service improvement and asking customers for ideas for new innovations. However, even the most creative of these approaches dealt only with the beginning stages of gaining feedback about hybrid offering, for example:

We also do forums where we bring in 200 customers for a 3-day meeting in which we share everything with them—challenges, technical problems, etc. This is beneficial because customers appreciate it but also because customers often become part of the solution.

Working with customers should create benefits for both providers and customers as a service moves from an idea, to concept and prototype testing, to initial purchase and delivery, and ultimately to value in use. Yet, when asked about customer collaboration, none of the interviewees discussed co-production, co-delivery or co-creation of value.

They did, however, mention the importance of defining customer characteristics and understanding how they can impact the success of moving into services.

REPLICATING HYBRID OFFERINGS

Another important strategic challenge for several of the firms interviewed involved time to market, which was consistently a quandary because senior management and those developing higher level services viewed the issue from completely different perspectives. Senior management's top issues included the desire to know how quickly the services can get to market, what the return will be, and how quickly that return will be realized. In contrast, developers of services wanted first to convince senior management that resource commitment, particularly new personnel, were needed in advance of developing or offering the service. One of the respondents stated:

It takes time to get the resource commitment for services. Early on we had resourcing challenges because our internal budgeting process is set for products; there wasn't a clear understanding of the need for people and investment in people that drives a consulting practice in the company.

Similarly, another respondent said that management recognized that while growth and high returns could come from services, they did not see the need to invest in people to make the growth a long-term reality. In general, the firms reported that executives from goods-dominant firms easily speak the language of capital investments and financial return for products, but do not know how to translate that into costs and payback for personnel investments that are often essential for service infusion. An executive stated:

Our previous CEO was convinced the company could make money with our company expertise and he had a vision of how this could help the company grow through

services; however he didn't really have a clue how that would get done. Our new CEO, originally started the service business so she understands it very well and sees the need to build the investment (e.g., people) first and to use different metrics. The senior leadership team likes the fact that services require low capital investment and have high margins. However, our CEO says that the rest of the leadership team 'doesn't really get it'.

Other examples were found of “first-of-a-kind” service offering design and field-testing whereby the initial offering of a particular service was co-developed with a partner and tested in the field with one customer prior to being launched more widely. As one of the interviewees stated:

Customers co-create 'first of a kind' offerings with us. Then, we try to take this intellectual capital to other customers.

Overcoming the replicating hybrid offerings challenge

A manager observed:

In terms of scale, we can go from idea to concept pretty well, but we don't have a very good process to go from a concept to a disciplined process to develop, review, and replicate. We don't have a model for breakout growth.

This chapter examined the challenges associated with service infusion at five firms that were implementing a service-infusion strategy. Interviews were conducted with key managers, transcripts were analyzed and key themes were identified. The core findings were further refined after they were presented to study participants. This produced several broad themes and constructs regarding the challenges associated with service infusion. Focusing on the capabilities required to sell and deliver hybrid offerings

offers an appreciation of the wide skill sets that are needed to be successful in implementing service-infusion strategies. In particular, the boundary-spanning personnel of the firm require solid competencies in relationship management. A focus on the challenges that surround customization provided an opportunity to consider the delicate balance of customization and standardization and the strategies the firms employed to address this issue. In considering the challenges involving customers the managers highlighted the variety of ways that firms factor in customer characteristics when they market their hybrid offerings and choose which specific opportunities are worth pursuing and provide the best fit for particular customers. Finally, the replication of hybrid offerings emerged as a fundamental challenge for each of the five firms that were studied. Ultimately, the success of a service-infusion initiative rests on the ability of a firm to develop a hybrid-offering solution for one customer and to effectively and efficiently replicate that solution for other customers. The next chapter details the phase-two case study that provides an in-depth examination of the hybrid-offering replication process in a business-to-business firm. Particular attention is given to the factors that promote or impede hybrid-offering deployment.

CHAPTER 4

A CASE STUDY: REPLICATING HYBRID OFFERINGS

METHODOLOGY

Phase two involved depth interviews with executives within a large European firm that is pursuing a major service-infusion initiative across the enterprise. The focus of phase two is to isolate a priority identified in phase-one interviews that emerged as a major determinant of service-infusion success: the replication of hybrid offerings across customer engagements. This chapter will explore and identify insights, approaches, and the special challenges associated with the replication of hybrid offerings, a crucial part of the service infusion implementation process. The findings provided by this fieldwork will be integrated with constructs from the literature and themes identified in the phase-one study. The interaction between theory and field observations is an established method used by previous researchers to construct theory (Burawoy 1991; Workman, Homburg, and Gruner 1998)

As established in phase one, due to the early state of development in the domain of replicating hybrid offerings, adopting a discovery-oriented, qualitative approach to explore the domain of replicating hybrid offerings is a well-established approach in marketing (Flint, Woodruff, and Gardial 2002; Morgan, Anderson, and Mittal 2005; Tuli, Kohli, and Bharadwaj 2007). Qualitative methods have proven to offer a strong foundation for understanding complex marketing phenomena, as explored in chapter two (Gebhardt, Carpenter, and Sherry 2006; Houston et al. 2001; Kohli and Jaworski 1990; Moorman and Miner 1998)

A case study approach provides an ideal vehicle for creating and grounding a conceptual framework and for identifying the key themes, organizational context, and constructs found throughout the hybrid-offering replication process (Miles 1984; Yin 2009). The implementation of a service infusion strategy is a recent phenomenon and previous work has established that case studies, specifically, single-firm case studies, are best utilized when exploring a relatively recent phenomenon as it allows for deeper insights in depth exploration of key constructs (Eisenhardt 1989). This chapter will explore and identify the factors that enable or hinder the successful replication of hybrid offerings.

The source of phase-two data is derived from personal interviews with key managers at a European Fortune-100 business-to-business firm. The company competes in the communications industry and is one of the world's largest providers of communication services. The firm employs over 100,000 individuals and serves customers in over 100 countries around the world. The firm is transitioning from a product-dominant organization to a more services-oriented firm. This transition to service infusion began more than a decade ago and the company has a sophisticated assortment of service solutions and products that cover the range from those hybrid offerings that are centered around products to hybrid offerings that support a customer process (Mathieu 2001b; Zeithaml et al. 2014). Like the firms examined in the phase-one study, transitioning to services represented a major cultural and organizational change for this firm.

In order to explore the issues and challenges that promote or impede replication, attention is directed to those hybrid offerings that are complex, involve more than one

person to execute, required significant customer interaction and were developed in the past two years. This was also in keeping with previous work that explored knowledge transfer within organizations (Szulanski 1996). The hybrid offerings explored in phase two represent services supporting customers, namely integrated product-service solutions (see Figure 1) (Zeithaml et al. 2014). An executive at the firm, who served as sponsor for the study, was responsible for driving growth through services in a business unit that worked across the various business units that supported an installed base of customers. His team was responsible for developing new hybrid offerings, identifying new markets for these solutions and implementing them across other business units.

The executive sponsor had mandated at the beginning of the year that ten hybrid solutions were to be identified that represented significant growth opportunities. Including here are hybrid solutions that are deemed to hold great promise in terms of profitability, match the firm's capabilities, and demonstrate the promise to attract significant customer demand. The executive rolled out key performance indicator metrics and associated compensation bonuses tied to specific performance goals for these ten hybrid offerings. Among the metrics, managers were responsible for developing standard processes, pricing tools, marketing material, and training programs for ensuring breakout growth for these ten hybrid offerings.

This phase two of the study focused on four out of the ten hybrid offering related to this strategic initiative at the firm. The four hybrid offerings were chosen by the sponsoring executive and represent a cross section of the other ten. The four hybrid offerings represent solutions that are further developed than others at the firm, are more core to the company's product-focused heritage, and represent offerings where the firm

has experienced noteworthy success and significant challenges when attempting to replicate particular solutions across customer engagements. The sponsoring executive identified individuals who could serve as key informants and met the following criteria with respect to the four hybrid offerings: (1) had direct knowledge of the performance aspects of the hybrid offerings, (2) was involved in a hybrid offering replication attempt in the past two years, (3) had frequent contact with the customer organization during the hybrid-offering implementation, and (4) was subject to the key performance indicator objectives of the sponsoring executive. Data was gathered through depth interviews with solution architects and product managers who were located throughout the worldwide organization. The sampling process ceased when saturation was reached, which was indicated by information redundancy. The final sample consisted of thirteen interviews. This is consistent with sample sizes recommended by researchers who have conducted similar exploratory research (McCracken 1988; Ulaga and Eggert 2006). The interviews were scheduled for 90 minutes and were conducted in person, via video teleconference and over the phone.

Interview Guide

An interview guide was used during the interview to guide the conversation and to ensure that key themes and topics identified in earlier phases of the study were discussed. Please see Appendix B. The guide was composed of three sections. In the first section, respondents were asked to focus on a specific hybrid offering for which the individual participant was responsible (having been identified in advance by the executive sponsor). First, the respondents were asked to describe the hybrid offering. Second, they were then asked to choose a specific customer engagement where they

attempted to replicate the hybrid offering that occurred in the past two years. Third, focusing on that specific customer and project, they were asked to describe the overall project, how the customer used it, its importance to the customer, and their role in the implementation. Finally, respondents were asked why they would consider the particular project to be more successful or less successful than similar projects. Frequent probes were used throughout the interview process.

Interview participants were further invited to describe the characteristics of the customer involved in the hybrid offering transfer. Questions centered on identifying differences among customers with whom they attempted more successful replication attempts versus those that were less successful (or vice versa). They were asked to describe the overall relationship the company had with the customer and the customer's level of knowledge of the hybrid offering or overall level of knowledge related to the offering. The purpose of this initial stage was to ensure that respondents considered a specific use situation and were prepared to compare alternative customer project engagements (Ulaga and Eggert 2006).

In the second stage, respondents described how the project team attempted to implement the hybrid offering for the customer. They were asked to describe the processes/procedures or tools the project team used while implementing the hybrid offering. Particular attention was given to the project team's level of project-specific knowledge overall, experience with the hybrid offering, and relationship skills. Finally, in the last section the participants were asked to describe themselves including: level of industry experience, educational and background, and tenure at the company.

Analysis and Interpretation

On average, the interviews lasted 60 to 90 minutes and were conducted with two researchers present. One researcher lead the interview discussion while taking notes, while the second researcher also took more extensive notes to more fully capture the responses. Both sets of notes were reviewed by the researchers and utilized. Having two researchers involved in every interview allowed for a convergent perspective to develop that enhances the validity of the findings, such convergence helps empirically ground the findings and improve the chances of uncovering novel insights (Eisenhardt 1989). Each interview was recorded and transcribed verbatim. In keeping with previous work in marketing, grounded theory coding was used independently by two different researchers to identify factors associated with hybrid offering transfer and to describe their components (Flint, Woodruff, and Gardial 2002). The coding was quantified and compared with previous relevant studies. Both hybrid offering and factors known to impact knowledge transfer in previous research served as the tool to organize the coding. The researchers met frequently to discuss themes and resolved differences in coding through discussion until consensus was reached. To further validate the study, findings the techniques of triangulation, informant feedback, and replication were used (Miles and Huberman 1994). The company shared with the research team a rich source of internal marketing material, specifically related to the four hybrid offerings, including: emails sent to the field organization about the importance of replicating these hybrid offering and the associated key performance indicator objectives.

A workshop was presented with a small team of executives within the sponsoring organization to describe the study's methodology and to share the findings. Researchers

asked the executives to assess the descriptions of the core themes and factors associated with replicating hybrid offerings and how they believe they are represented in practice within the organization. They suggested changes in wording but overall agreed to the meanings and factors presented. What emerged from the analysis were insights that linked various themes with particular organizational processes involved in replicating hybrid offerings. These themes appear in Table 4.

Researchers organized emergent themes around categories that were found in the literature to impact knowledge transfer. These categories included the characteristics of the information being transferred and the characteristics of the source and seeker teams attempting to replicate the information. In addition, the interviews yielded additional elements that are important to the replication of hybrid offerings; these included the characteristics of the customer and overall characteristics of the relationship between the firm and customer. The definitions of the themes were taken from the interviews wherever possible. When an established construct in the literature best captured what the manager's were describing, the established construct definitions were used. In addition to capturing the themes manager's described as being important to replicating hybrid offerings, researchers noted the extent to which these themes were thought to promote or impede transfer success. The managers who were interviewed defined successful replication and this was consistent with previous research that noted that success factors place an emphasize on the extent to which the hybrid offering was completed on time, on budget and met customer satisfaction targets (Pinto and Mantel 1990).

The themes that emerged from the case study interviews were first noted in chapter three, which considered challenges with service infusion as a whole. The

challenges found in chapter three centered on key firm capabilities such as the boundary-spanning and sales skills needed for successful service infusion. As we delve deeper into replicating hybrid offerings, these same capabilities are found to be critical in successfully implementing hybrid offerings across customer engagements. Other issues such as customization and customer characteristics are also found to influence the degree to which this company was successful in replicating hybrid offerings. Integrating insights found in the knowledge management literature, I also found challenges in the codification of the knowledge needed to replicate hybrid offerings. Although many of the findings from this rich literature are present in a hybrid offering transfer context, there are several distinguishing factors that are specific to hybrid offerings that shed deeper insight and ultimately provide the basis from which a newly developed conceptual framework can be derived. In the next section a review of the specific hybrid offerings that are the focus of our study is presented.

Table 4

Summary of Interview Themes

Categories	Emergent Themes	Definition	Promote vs. Impede
Hybrid Offering Characteristics	Complexity	A large number of integrated goods and services, geographical locations, and personnel are required to implement hybrid offering.	I
	Customization	Tailored to a customer's specific operational environment.	I
	Long sales/implementation cycle	Requires longer than a year to develop and implement.	I
	Strategic alignment	Aligns with the firm's existing portfolio of products/services, and serves existing client markets.	P
	Revolutionary change	Represents a major change in technology, market capabilities or business model.	I
	Causal ambiguity	The underlying performance elements are not known.	I
	Templates	A codified process or practice outlining how to market and implement solution.	P I
	Third parties	Companies other than the selling firm involved in the performance of the hybrid offering.	I
	Proof of concept	Evidence of the hybrid offering's value proposition.	P
	Performance expectations	Objective performance criteria of hybrid offering.	P
	Value propositions	Understanding of how the hybrid offering delivers value to the customer compared to the firm's next best alternative competitor.	P
	Credibility	Confidence in the ability to deliver on hybrid offering's performance expectations.	P

Table 4

Summary of Interview Themes Cont.

Categories	Emergent Themes	Definition	Promote vs. Impede
Firm Characteristics	Absorptive capacity	Ability to assimilate and apply new knowledge.	P
	Knowledge sharing	Tendency to share information freely.	P
	Incentives	Incentives are aligned within the firm.	P
	People focus	Invest in employees through training, career advancements, and offers competitive compensation.	P
	Boundary spanning skills	Forming relationships with individuals outside of one's organizational unit or department.	P
Customer Characteristics	Project expectations	Expectations of the performance outcomes of the hybrid offering.	P
	Absorptive capacity	Ability to assimilate and apply new knowledge.	P I
	Flexibility	Willingness to change and alter operational processes to assimilate hybrid offering.	P
	Relationship orientation	Seeking a long-term, strategic relationship.	P
	Sense of urgency	Project implementation of highest priority and importance.	P
Relationship Characteristics	Relationships quality	High number of close and strong ties between customer and provider firm.	P
	Communication quality	High number of face-to-face meetings and frequency.	P
	Executive involvement	Top executives are aware and supportive of the project.	P

HYBRID OFFERINGS

As defined earlier, a hybrid offering represents the combination of one or more goods and one or more services that together offer more customer benefits than if the good and service were available separately (Shankar, Berry, and Dotzel 2007). The four hybrid offerings that are the focus of this study can be conceptualized as existing on the far right side of the service infusion continuum (see Figure 1) (Zeithaml et al. 2014) or as more oriented around supporting a key customer business process (Mathieu 2001c). All four hybrid offerings were very recently developed and were replicated within the past two years. Please see Table 5 for a fuller description of the individual hybrid offerings. All four hybrid offerings are complex and require more than a year to complete. The timeframe encompasses the time between the first sales meetings to when the solution is finally implemented for the customer and they have accepted service.

The creation of hybrid offerings can be conceived as a set of organizational routines that firm personnel enact with the customer. In keeping with previous research findings that customers view hybrid offering as a set of relational processes as opposed to just a combination of products and services that serve a specific customer need (Tuli, Kohli, and Bharadwaj 2007). The new relational perspective advanced by these researchers, stresses the need for providers to capture and understand a customer's needs, integrate their learning's, implement and support the hybrid offering for the long term.

Often, customer needs are latent and they may not be clear on the performance characteristics that they are seeking. In attempting to understand a customer's true needs, suppliers must form multiple relationship ties with the customer organization (Tuli, Bharadwaj, and Kohli 2010). These interactions not only require deeper and frequent

communication but knowledge concerning a customer's operating environment and how the hybrid offering can be implemented to deliver the most value. The entire hybrid offering solution development processes encompasses many of these tacit elements that involve customer interaction and understanding. Research has established a strong link between relationships and knowledge transfer (Granovetter 1973; Kogut and Zander 1992; Szulanski 1996) but what is missing is an understanding of how these links work when the knowledge being transferred is tacit, created and transferred at the same time with not only team members across units but also with diverse members of the customer organization. In the interviews, managers observed often those responsible for key parts of the hybrid offering solution development do not have physical proximity to the customer. Past work has identified how certain relational conditions can take the place of the benefits of physical proximity (Borgatti and Cross 2003), a recognized method of transferring tacit information, which enhances hybrid offering transfer success.

The hybrid offerings that are the focus of this chapter were co-created with an original customer. This type of joint innovation is a topic of past research that focused on both the benefits and risk associated with jointly developing hybrid solutions with customers (Noordhoff et al. 2011; Payne, Storbacka, and Frow 2008). One aptly observed:

Our R&D is in the field. It's with the customer project. We typically have an R&D within the professional service of three percent of the net sales. We should also cover the competence buildup, the recruitment of people, the sales support—all those type of things. We need to work together.

Table 5

Case Study Hybrid Offerings Overview

Hybrid Offering	Description of Hybrid Offerings	Underlying Service Offering	Underlying Good
Network Inventory Management Solution (NIMS)	Collates all network infrastructure data and keeps in up to date, helping to streamline processes that improve operational performance.	Product inventory & management, network planning, service fulfillment	Routers, servers, radio equipment, cable
Multiscreen TV Solution	Enables TV service providers to deliver any content to any screen on any network within one integrated solution.	Content distribution & delivery, managed services, business consulting	Broadcast & network equipment, application servers
Billing Solution	A convergent charging and billing solution that supports the ability to handle all customers and services in a streamlined, convergent process, covering pre-paid and post-paid, voice and data, fixed and mobile, retail and wholesale.	Customer care, billing, service resolution, repair	Database servers, network integration equipment, mobile interfaces
User Data Consolidation and Migration Solution (UDC)	Provides subscription handling for all the processes related to the privacy, authentication, authorization and mobility management of end users in mobile and converged networks.	Solution analysis and design, life cycle management	Network servers, routers, data & wireless servers

A common attribute of all four hybrid offerings is that they are complex, customized to individual customer environments, need the involvement of organizational members from various functional units within the firm, and require close collaboration

with the customer in order to implement. This boundary-spanning skill set, identified in our earlier chapter, was an emergent theme in our interviews. Past work examined how a boundary-spanning role can enable knowledge from one functional role to be communicated to other roles to ensure that the proper business processes and hybrid-offering components are put together for the stated customer business objective (Tuli, Kohli, and Bharadwaj 2007). Close actor participation improves the effectiveness of the hybrid offering development process by enhancing information sharing (Palmatier and Steenkamp 2008). Studies have shown that social cohesion, network range (Reagans and McEvily 2003) and the number of relational ties with an exchange partner increases the likelihood of information transfer, especially the tacit information found in hybrid offerings (Gulati 1995). This theme of working closely together and relying on team members to deliver hybrid offerings was identified in our interviews. A manager stated:

For some projects you have a lot of people with the knowledge flying in and the local team is taking the ownership. Because that is—if you're an immature local organization without the skill sets or experience required for the project then you maybe trust a lot on the business unit on the head office headquarters actually to serve and help you with the project.

Customization

The literature points out that although hybrid offerings can provide customers with many benefits that they perceive to be customized to their specific environment, providers can often meet this customized needs with off the shelf products and services with minor front-end modifications (Miller et al. 2002). The challenges presented with

customizing hybrid offerings can be daunting as explained in detail by the following manager:

Our solutions, technically, don't have a platform to build on. The inventory solution for example—in some cases, we support the spare part management, the provisioning or the readiness of the telecom network, and in other cases the assurance processes, assurance of the network for management and trouble ticket management. These are all really different solutions, but they are inventory solutions in the company portfolio. Then we have the different network technologies. We are supporting also other vendors' network in our inventory as well. What we label as our inventory and management solution tends to be so different so that if you take a previous inventory solution and try to replicate something like that the amount of things that can be replicated becomes very small. Then we have our idea of globalization, which makes it more difficult. Still ...it is possible to replicate, but it makes things—very difficult and hard to reuse knowledge.

Customization can also lead to ambiguity about the various performance aspects of the hybrid offering. For example, the user data consolidation and migration solution (UDC) was perceived by some managers to be more core to what the company was currently doing and not very novel. The hybrid offering was also marketed very heavily in the past year. One interviewee stated:

UDC is something that we pushed quite a lot last year. You can say that it is already available for breakout, so that should be one of those where you can get a lot of experience. I think it is older than the others. It is closer to traditional

(Company) products. You have more competence out in all the traditional regions around that product.

Another manager concurred that the solution was closely related to the company's core offering but disagreed to the characterization that the solution was not novel. The manager argued:

One important thing that you need to understand about this solution is that it's a highly revolutionary change, in terms of technology and architecture. It is a completely different way of seeing the databases, that are not going be, only internetworked but they're going be getting into the application layer.

The ambiguity in understanding the core value proposition of the hybrid offerings within the firm was a constant theme throughout the interviews and underscores previous work that has highlighted the crafting and understanding of what constitutes a good value proposition (Anderson and Narus 2006).

The company placed the UDC hybrid offering on hold, meaning that they were no longer actively offering it to customers or promoting it, shortly after the conclusion of the interviews. One particular replication attempt not only failed to produce the efficiencies promised to the customer but the challenges associated with implementation put at risk other, higher dollar revenue projects from the customer. This fear of the consequences of getting the hybrid offering implementation wrong was present in some interviews. An interviewee stated:

There is a saying here at (Company) that if you can sell more easily traditional infrastructure products for billions, why do you bother yourself or risk a client relationship over a complex hybrid offering project for ten millions?

The quote highlights the importance of getting hybrid offerings right and how venturing into service infusion without the proper capabilities to deliver on what are a very distinct set of customer expectations can lead to dire consequences (Tuli, Kohli, and Bharadwaj 2007).

Hybrid offerings vary in terms of their ambiguity and are supported by critical resources and capabilities that are equally as diverse (Ulaga and Reinartz 2011). Hybrid offerings are complex and multifaceted and the elements relating to performance may become tacit. This tacitness can increase the causal ambiguity of the hybrid offering. Causal ambiguity is defined as uncertainty about the elements (components) of a hybrid offering and all the processes that result in its successful execution and delivery (Lippman and Rumelt 1982). This can pose challenge to firms because customers expect providers to understand their requirements, customize and integrate their products, deploy and provide ongoing support (Tuli, Kohli, and Bharadwaj 2007) These complex patterns of coordination increase the causal ambiguity of the solution (Day et al. 2004). A manager highlights the issue:

A lot of how to put together these solutions is in the head of some people that, like myself, working with this solution, it's not really something you can explain—you can't put a document together of 100 pages and say this is our typical inventory solution. There are documents, but they are not that detailed. They're not as defined as they could have been because it's hard to get out of our head and into a document.

Although the challenge of codifying the crucial elements of a successful hybrid offering transfer are understood across all four hybrid offerings, templates and blueprints

outlining the various actions and roles needing to be taken during a hybrid offering implementation were common and used. An interviewee stated:

We have templates for it. We have a statement of work. We have solution descriptions. We have work package breakdowns and some other documents—templates that are very high level. They try to capture the intellectual work to understand from what the customer is saying, at different meetings, workshops, other interactions, into defining and writing these solution descriptions that work.

THE TRANSFER PROCESS

Mastering the ability to transfer hybrid offerings from one customer to another is a critical capability that firms need to perform in order to succeed with a service infusion strategy. Prior research has examined the transfer of best business practices within an organization (Szulanski 1996). The ability to create and implement hybrid offerings can be thought of as a best practice that a firm is trying to replicate across customer engagements. A study participant noted:

Everything changes from project to project, so the only things that can really be reused are the ways of working. The ability to create a good work breakdown structure, quantification of the amount of people you need, and the competence profiles of each person. Putting them together in a comprehensive timeline with established work packages that contain every task and task duration. We may not possibly reuse numbers, not even products, or persons, but the ways of working is what lingers on, what you can improve and make it even better for the next project.

Research has stressed the importance of engaging personnel from different functional departments in order to innovate and maintain a focus on the customer (Gulati 2007) but this adds complexity that needs to be managed is a very specific sequence. One executive noted:

One common problem is that different people are involved in presale and then in the delivery, so often, there is no continuity. What you discuss with the customer during the presale, maybe, is different to realize in the delivery, or during delivery, you don't understand, perfectly, the requirements, et cetera.

Not only do team members need to be managed but when implementing hybrid solutions the firm needs to manage and coordinate relationships with multiple stakeholders in the customer organization (Ronchetto, Hutt, and Reingen 1989), as one interviewee noted:

You have to deal with many stakeholders. That's also true. I mean, it's very important, stakeholder management, so to deal the right way with all these stakeholders, coming from different departments, maybe, et cetera. There are many, since not always, all stakeholders are really interested in the solution. They, maybe, have different interests, et cetera, inside the organization, different objectives.

Templates

The company uses a very sophisticated offer readiness process that all newly developed hybrid offerings must go through. Key milestones are created after the first case or birth of the hybrid offering and are associated with the building the capabilities to support additional deployment. These milestones included the creation of a standard scope of work, contract language, standard pricing, and an overall market potential and

risk assessment. Once these milestones were met, the company then planned for replication and scale. The processes in this phase included identifying company assets required to support the hybrid offering, creating marketing and sales documentation, and the creation of a template or blueprint with all key elements, roles and responsibilities identified, along with a projected timeline. These blueprints exist in various forms. They are found in a company intranet web portal, on file servers deep within the geographical regions, close to customers, and in a global competency hub that is responsible for consolidating and managing the blueprints that exist on a global level.

After reviewing the templates that seemed to include much detail, it was surprising that respondents did not find them to be very valuable. One manager noted:

I was thinking of something that you said—we talked about this blueprint or a template, yeah? One other thing, I think is an issue for us is that we don't have this idea of a template clearly defined, this breakdown of how to define the structure, we don't have the blueprint well-defined, and we are globally distributed. I am working at the Global Competence Center. There are solution architects in different regions that are also working globally and in their respective global regions, and there is a possibility to define solutions that will work well, to reuse the knowledge they're getting from earlier projects into new projects so that we can do things better. It makes it much more difficult to do that because it's this global distribution, and the lack of a really clear, defined way of structuring the solution.

The creation of templates is a critical milestone needed before a hybrid offering can be attempted to be resold to a different customer. This has resulted in a prolific

amount of templates that exist. From the manager interviews, a review of the company's templates and sitting in on internal deliberations on the topic, it is clear that this focus on templates creation has resulted in two important consequences. First, templates have become so finely customized to a specific customer engagement that other managers see little value in applying them to other customers. Second, the creation of templates has become routinized to the degree that the proper level of effort and thought is not being invested to provide a user-friendly tool to support replication. Past work identified the importance of individual's valuing what the other person knows as a key characteristics that encourages information seeking (Borgatti and Cross 2003; Szulanski 1996). This sentiment is expressed when a manager stated:

The databases where our solution blueprints are stored are things that can be improved. Both the quality of things that are stored there and better ways of searching for information can be improved. I mean, oftentimes stuff just gets put up when our manager tells us that we should find and put up a number of knowledge objects per a certain period and so forth and then people, they just dumped lot of garbage into the database, so it's not really useful, actually-I mean, if I knew that you'd be working on the sort of project that is similar to what I'm planning to do—then I contact you. People are very willing—that's my experience, at least—to share what experience they have and share documents and that works very well but the databases, not much.

Although a challenge, several study participants have identified strategies to overcome this challenge of how to structure and create a valuable and useful template. One approach involved actively making template sharing and template improvement a

key activity of managers who will actually have the future need of actually using it. In addition, the majority of the knowledge sharing is done in a media rich manner, either over a conference call or in person exchange. Research has noted that attempting to transfer knowledge in the absence of a social community or rich communication channel is difficult (Zander and Kogut 1995) A manager who found a way to overcome the challenges with knowledge transfer reinforces this point:

I'm driving a network of people with representatives from each region—from most regions, not all regions. I call it—it's Global Solution Architect Network which we meet on phone and online every second week for a one hour—one and a half hour meeting. Sharing experiences between us, ways of working, what we're doing, what engagement we are in, challenges associated with those engagements and how we overcame them. By this I am spreading the knowledge between the combination of the blueprints and the person-to-person interaction—I would say it saves people and services delivery managers much time and it is esteemed.

Throughout the interviews, respondents all recognized the value in the ability to reuse existing processes or in learning from past engagements but all did not agree as to the value of their specific knowledge capturing processes. There was ambiguity in understanding what should be a part of a well-constructed template and how such tools should be maintained. An interviewee stated:

Our knowledge sharing is getting much better, but I feel—I'm trying to understand what I shall put into the knowledge-sharing area because I really don't think I understand that. I put my projects in a long time ago and know I'm

producing what I think are good stories towards the customers' lives, but they're not—I don't put them into knowledge sharing because I wonder how—I really don't know what are the criteria to put them into the knowledge sharing. We are measured on that. It is a challenge to make sure that what's in there is of good quality and that can be reused.

As the interviewer noted, the company has a very sophisticated and well-used knowledge sharing process but in trying to improve the value of the templates, various configurations of the templates are created, and their content becomes distributed. Overall template responsibility is shifted from a single group of users to the entire organization and this results into a process that has no real owner. Several firm factors also seem to have a moderating effect on this challenge of managing templates and their use.

ORGANIZATIONAL FACTORS

The characteristics of the company as a whole played an important role in hybrid offering transfer success. Although literature has long highlighted the value of close personal relationships with customers as a way to advance performance (Palmatier et al. 2006), the managers interviewed stress that the replication of hybrid offerings requires more attention be given to the close personal relationships that exist with their peers within the firm. As one manager stated:

You need good relationships within your team where you can't hesitate whether you should call a person or not just because it's a stupid question or something. It needs to be on that level, it will—to some extent, you need to have a personal relationship with them, but still, of course, it has to be professional too.

These close relationships can foster trust and can lead to better ways of communicating. Research has shown that a high level of trust can help facilitate the transfer of highly tacit information, such as that found in the organizational routines involving hybrid offerings (Nonaka and Krogh 2009). One interviewee stated:

I thought one thing that we need to improve, as I said before, is the cooperation internally in the company between the business units here. We need to be driving in the same direction. Right now we are not really there yet; driving completely in the same direction. Because we need to see that this is a joint business. It's not just one wheel that has products that they're driving on their end.

During the replication process, managers may at one point in time be the source of the hybrid-offering replication. At other times, they may be the recipient, or trying to implement the hybrid offering. Past work has emphasized the characteristics of the source and recipient as a key factor in knowledge transfer (Szulanski 1996) and many of the same challenges highlighted in past studies are relevant to hybrid offering transfers.

Absorptive Capacity

All managers interviewed stressed the importance of having the right resources when attempting to replicate hybrid offerings. They defined the right resources as having the right personnel involved in the project who understand the technology, customer-operating environment, and know how to put all of the elements of a hybrid offering together in a manner that creates value for the customer. Past studies have labeled this capability to apply what you have learned as a firm's absorptive capacity more formally, absorptive capacity is defined as the ability to acquire, assimilate,

transform, and exploit outside knowledge (Cohen and Levinthal 1990). Highlighting the importance of this capability, a manager observed:

The main reason in those cases where we haven't been so successful, I think, actually, it comes down to people. If you have a team that has delivered a similar solution, or at least in the similar area before, it's much more likely that it will be a successful project. You need that previous experience and knowledge to make it work.

An interesting quote highlights the importance of recognizing when you do and do not have the right resources in place to support a particular hybrid offering replication attempt:

We have said no to this deal I think two times or something like that. The team in the region knows that they don't have the capability of doing it. Because they don't have the local competence to do it. It's very risky to say no but still it saves people. All the product units they want to sell because they think that it's very important. They want to get a footprint in this market or in this country and so on. It could be a bad footprint as well. You need, of course, to battle something. I will not always say no, of course, but I will if I have to—because it's a joint business in our company and we need to work with other business lines in different business units in order to do this right.

The capability to apply previous knowledge to a new context is instrumental in ensuring hybrid offering replication success. The sales capabilities highlighted in the previous chapter are a key component of this capability as it is often the front-line personnel who set customer expectations and manage the customer interactions. The

customer, we find through our manager interviews, plays a larger role in the replication of hybrid offerings than may have been previously acknowledged.

THE CUSTOMER

The managers interviewed recognized the value of close personal relationships with their customers as a key role in influencing transfer success. They stressed the importance of trust and how it manifests itself in a transfer context, as stated by this interviewee:

Having the customer trust you means that you have a certain amount of mistakes that you can make. If you have a high level of trust with the customer, they trust you, and if you fail with something they know you will fix it. Because then you know you have trust. If you're failing a lot of times then your trust level goes down and then you have a very delicate situation to rise to.

Another customer characteristic that emerged in the interviews was the idea of customer flexibility. Previous studies have identified how the extent to which customers are willing to alter organizational routines and processes can affect a hybrid offering engagement (Tuli, Kohli, and Bharadwaj 2007). A customer's norm of flexibility is defined as a bilateral expectation between the firm project team and the customer regarding the customer's willingness to make adaptations as circumstances change (Heide and John 1992). An interviewee noted:

The customer contacts here in Stockholm, they've been much more flexible and willing to adapt their systems, their processes to—yeah, to our platform, so to say

Another manager stated:

If the customer seems to be, I'm not sure how to say, confident, productive—I mean, if they're open, seems to be—yeah, open-minded to us, they are willing to cooperate with us and not—I mean, not demanding every little detail, can be open-minded on how to do it up, and allows us to take a chance on both sides. I mean, it's give and take. I like to feel as though I'm working with a customer that is not picking at the small details, that you need to comply to this, or else!

The managers interviewed identified another key factor that supports the hybrid offering replication process. They describe it as a productive shift in the relationship that can unfold during the customer engagement. It is captured in the following quote:

We have been in situations when we really had a change in our customer relationship, from, I'd say, a straightforward software implementation point of view, to a more consultative relationship. We started to discuss, with the customer, how this new functionality should affect their operation, their business; how to interfuse these functionalities in their organization, so, working at this level, working with them, not just as software supplier, but as consultants who can help their business made things easier.

The manager is describing a relationship that has shifted from a simple transaction to one based to a more strategic orientation. Previous research suggest that a customer's relationship orientation, defined as a customer's desire to engage in a strong relationship with a current or potential partner to conduct a specific exchange, can lead to many positive outcomes that enhance the hybrid-offering transfer success (Palmatier 2008b). For example, this strong relationships orientation can lead the customer organization to

value the number and quality of ties between firms. These new ties can help enhance the transfer of tacit information.

Finally, just as it is important for the supplier organizational members to have the high levels of absorptive capacity in order to facilitate transfer success, a customer's absorptive capacity can have a similar effect. As noted earlier, a customer's absorptive capacity is a function of their preexisting stock of knowledge and stronger levels can increase their ability to value, assimilate or apply knowledge to their operating environment (Cohen and Levinthal 1990). Customer knowledge related to business challenges, political sensitivities, and operational environment can have an effect on the transfer (Tuli, Kohli, and Bharadwaj 2007). As a manager stated:

I think we are more successful if customers know more. I think so. Of course we can educate them but it's not easy to—it's not easy to convince someone if they don't understand what you say. The worst case is when customers don't really have the time or resources for the project but put people on the project that do not have the needed competencies or understanding of what the solution should be, but at the same time, have very strong ideas of how to implement. They don't know what they are talking about and that makes it really difficult.

DEFINING SUCCESS

Another challenge identified in the interviews was a lack of a clear consensus on what constituted a successful hybrid offering transfer. Past work has identified that most suppliers will measure hybrid offering success as the degree to which the project was completed on time, on budget, met customer satisfaction and performance needs (Pinto and Mantel 1990; Szulanski 1996). The lack of a clear understanding of what constitutes

success may cause a lack of solidarity of purpose among the project team members that can have negative effects on the transfer process. A manager observes:

How do you know if you're doing a good job, we don't? Maybe if you're managing margin very well, that would be one, I for sure hear it if I don't. No, that's not as transparent to people in the delivery. We can't really see if we are doing well as much as I think would be beneficial if we could have maybe. Is the customer happy months after we leave, did they really see the benefits we talked about. We don't really know-should we?

This apathy toward defining the parameters of project success was also noted in the following interview. A manager stated:

At the end of the project, there was a fairly short customer survey sent for the customer with five questions that dealt with the people, and the project. Were we competent enough, did we deliver on time? Blah, blah, blah

FINDINGS

The themes that emerged from the interviews with these managers point to several issues that can promote or impede the likelihood of a successful hybrid offering transfer. Please see Table 6 for a summary of the findings and implications.

Table 6

Factors that Enhance and Impede Hybrid Offering Transfer

Enhance	Implications
Create high quality relationships with customer and organizational members	Supports the creation of close and strong ties, which enhances knowledge transfer, communication, and trust.
Create cross-functional relationships within the supplier organization	Increases knowledge sharing, trust and promotes cooperation needed to coordinate implementation activities.
Credibility in hybrid offering	Boosts confidence in the organizational team members involved with implementing the hybrid offering and enhances knowledge sharing.
Clear understanding of market potential	Increases success of marketing efforts, supports efficiencies in transfer attempts, and resource allocation by engaging in customer opportunities with a high propensity for success.
Impede	Implications
Unclear/fuzzy value proposition	Members of the organization fail to see the distinctive value that the offer provides to customers.
Extreme customization	Fine-grained customization to suit single customer hampers replication efforts for other engagements.
Lack of top management support	Insufficient resources needed for implementation promotes turf battles and prevents replication efforts.
Knowledge rationing	Information used as currency creates knowledge silos, promotes distrust, and undermines cooperation.

One of the issues highlighted the most were factors associated with their more successful projects and less successful projects. This was the subject of relationships.

Relationships

Relationships can impact the successful replication of hybrid offerings on two different levels. First, there are the relationships that exist between the provider firm and the customer. High quality relationships that are characterized as containing a high number of cross-functional close and strong ties, between organizational members, support the transfer of tacit information (Zander and Kogut 1995). Many of the tacit elements involved with hybrid offering transfers include the customer's understanding of their current needs and the expected performance benefits of the hybrid offering solution. Many times customers are not sure of exactly what they need or individual customer contacts may not understand the broader organizational goals and this may limit the ability of the hybrid offering to satisfy future needs (Tuli, Kohli, and Bharadwaj 2007). Building close relationships an account team can develop a clear understanding of the organization's needs through open and candid discussions with key personnel. Close customer intimacy is based on trust and supports the formation for a flexible orientation from the customer organization as they hybrid solution is implemented (Heide and John 1992). A manager explained:

Frankly speaking, what I see as being the most important element to successful replication, from my experience, is the customer intimacy. The global knowledge is important, but if you have knowledge and don't have customer intimacy, usually, the projects do not fly well. This is especially true in the crucial stage, the beginning. If you have both, good knowledge and intimacy, you are in a very powerful situation.

Second, the relationships among the provider organizational members play an instrumental role as well in successful replication. Managers interviewed highlighted the importance of having the right resources for a particular hybrid offering engagement. Their descriptions of the appropriate competencies needed went well beyond any technical proficiency. They described at length the importance of a variety of soft skills including a strong customer orientation and good communications skills, that are required to work effectively with project team members and implement solutions characterized by high levels of ambiguity with respect to the solution offering. As a manager observed:

One of the most important things, which I think has shown in the past to be successful in terms of replication, is the personal relationship—what you could say? The personal relationships between the team members working together on the project are critical. We share persons between projects; that is very important. I mean, we can do a lot of documentation about the solutions, but if the persons who are participating in one project do not support and help the next project team, then it's very hard to get any successful replication on any level. You need more than documentation. If I had the choice, I would pick people over paper.

Compared to less successful transfer attempts, successful hybrid offering replications featured project team members who were not chosen by technical competencies alone but were selected on the basis of both soft (e.g. customer orientation) and hard skills (e.g. technical knowledge).

Credibility

Credibility played a large role in successful transfers. Credibility is defined as the believability in the stated value proposition of the hybrid offering at a particular moment in time (Herbig and Milewicz 1995). Specifically, credibility can undermine the confidence of organizational members in the hybrid offering and the other project team members. Newly developed hybrid offerings have yet to be fully tested in a myriad of contexts and organizational members may not be familiar with the hybrid solution. If a provider organizational member perceives a lack of credibility in the hybrid offering it can have the following negative effects. For example, a lack of confidence in the hybrid offering creates a disincentive on the part of the project members for becoming heavily involved in the project for fear of being affiliated with an unsuccessful attempt. A lack of credibility can also encourage project team members to sabotage the project early in the sale cycle by discrediting the project to customer organizational members, because they do not want to compromise their customer relationships with a bad implementation. One manager noted that when he felt the hybrid offering was not “ready for primetime” he would make sure he was involved in other more promising projects so that he would not be available for the perceived inferior project. The manager indicated this was something most solution architects practiced and served as a method of self-selection where the top personnel with the most experience were not always on the projects that could have benefited from their experience. They were instead self-selecting into more well-known, safer, projects that members felt had a higher likelihood of success.

Credibility also played a direct role in the transfer of valuable information. Previous research has shown that the lack of credibility in the source of knowledge can

impede the transfer of said knowledge (Szulanski 1996). When team members reach out to managers who were involved in previous engagements and do not perceive them as credible, they will doubt the usefulness of their information and place a lower value in their advice, templates, and overall know-how. This led one manager to describe a process to where she keeps close to her vest the most up to date templates and keeps them on local in-country databases, shared only with those she deemed worthy:

I have a folder where we keep all good templates, here in country. I know my colleagues that have done this work, et cetera. There is this kind of sharing and understanding within this group. Then, at the regional level, there are initiatives to collect at a global site, et cetera, artifacts, documents, et cetera. Then, at global level, there's, again, another initiative, to create a portal sharing the global information further. All them are good, but I want the good stuff. In the other global databases there is no real coordination, quality assurance, and information is relevant globally. We are selective in who we share the good stuff with and you get what you give. If you give us good stuff, we will then share with you too.

Value propositions

Fuzzy or unclear value propositions hinder the replication of hybrid offerings. As noted, research has shown that sometimes the performance attributes of a particular hybrid offering may not be well understood and this ambiguity can cause organizational firm members to be unclear about the elements of the hybrid offering customer's value most (Lippman and Rumelt 1982). An unclear value proposition will also demonstrate

that the provider does not have a very sophisticated understanding of the customer's business needs and limit credibility of the solution. Expectations are difficult to set in advance and often customers walk away from important project milestones with a decreased understanding of how the hybrid offering will operate in their environment and affect their internal organizational processes.

Hybrid offering market potential

A clear understanding of the potential market for the hybrid offering can ensure a good customer fit between the customer problem and the hybrid offering solution. An understanding of the potential market for the hybrid offering can help promote clearer value propositions and increase the likelihood for transfer success because the provider will be more willing to make critical investments in the needed people and processes if they believe they will get a good return on the investments. Managers explained how often executives would single out a one-off solution for replication without understanding how challenging the project was to implement or the investment needed to fund further replication efforts. A clear understanding of the market potential for the hybrid offering will allow firms to focus investment on those offerings that represent a larger market opportunity ensuring an efficient allocation of firm resources. An efficient allocation of resources allows managers to steer investments away from less successful projects and place larger investments in hybrid offerings that not only merit them, because of a larger market potential, but benefit from the added resources as well. An accurate forecast of market potential enhances credibility in the hybrid offering overall if provider organizational members believe that the hybrid offering, backed by investment by top management, has a future.

Customization

Finally, the challenge of customization has a direct impact on replication success. Managers noted how on some projects the provider organization customized too much in some areas and not enough in others. They believed this stemmed from two important drivers. Failing to manage customer expectations and failing to understand what the hybrid offering was and was not. First, for success, a team must manage customer expectations with respect to how the project will be implemented, how revolutionary the project will be in terms of technology or how the customer currently operates their internal processes. Managers described how often commitments are made during the sales process that should not have been made, because they fall outside of the intended scope of hybrid offering, however, in order to satisfy the customer, they will customize a process or add an additional element thereby increasing cost and complexity.

Highlighting this point, a manager observes:

I've been in situations where we are beginning the kickoff phase of the project with the customer and we have our salesperson sitting at the table. There was a question asked concerning if the solution could do something in particular and the salesperson said yes without understanding the implication of saying yes to that question.

Second, managers explained that the type of hybrid offerings they are responsible for implementing need to be properly defined, identifying the right resources and processes to ensure delivery success. When managers have a good understanding on what they will be delivering, they can accurately plan and allocate resources to the project. However, when there is ambiguity in understanding the solution or they do not

adequately understand how the customer will utilize their solution, it increases the chances that they will have to modify and change something late into the implementation. Successful replication attempts are scoped where the front-end processes that the customer interacts with are customized to their operational needs but the back-end architecture that supports the solution is built of standardized back-end processes (Sawhney 2006). One manager explained:

When we sell to customers we sell them this type of picture and tell them this is what we will integrate for them. This is actually pre-integrated. It is pre-integrated for a specific customer environment context and the context can be modified and changed to fit their context. Sometimes it's easier to don't show the different ways you can configure and just show that this is the system or the framework we have built with one option. But based on our framework we can implement a lot of different service context to support different customer environments. We will typically tell customer that the most common one is the one we have out of the box. We reuse this maybe 15, 20, 30 times, something like that on the high level.

It is when managers attempt to modify the underlying architecture of the solution that customization bleeds into the creation of what really is an entirely new offer.

Summary

This chapter highlighted several factors that are important in the hybrid offering replication process. Some of these elements have been identified in previous research and others were highlighted in chapter three. First, the successful replication of hybrid offerings relied on several factors associated with the hybrid offering itself. The

perceived lack of credibility in the hybrid offering by organizational members, the extreme customization of the solution, and an unclear understanding of the value proposition associated with the hybrid offering were crucial to successful replication attempts. In addition, the social context in which the replication attempt occurs was another important factor. The cross-functional relationships within the supplier organization and top management investment all proved important to successful hybrid offering replication. Second, the needed skills and competencies involved in hybrid offering replication requires the involvement of managers from across the different departments and organizational units of the company. The various templates and tools and the manner in which they are used can all affect the likelihood of a successful transfer. Third, characteristics of the organization are an important driver as well. For example, close relationships that create trust among team members helps facilitate the transfer of tacit information, critical in transfer success. Finally, the characteristics of the customer organization such as the extent to which organizational members are willing to modify their routines as well as their ability to understand the value of the hybrid offering can help promote or impede the transfer process.

These emergent themes gave rise to important replication affecting factors that can impede or promote successful hybrid offering transfer. Relationships between and among members of the provider and customer organizations can support a variety of factors that promote transfer including: knowledge transfers, creating trust, and an enhanced understanding of customer needs. Credibility can improve the confidence of organizational members involved with implementation and ensure that that team members share relevant information. A clear understanding of the hybrid offering's

value proposition can help a firm manage customer expectations and ensure that managers are paying close attention to the value-driving elements of the hybrid offering implementation. Managers who understand the market potential for hybrid offerings can also be more strategic about which customers to engage and in ensuring adequate resources are invested into opportunities that show the most promise for profitability. Finally, finding the right balance between standardization and customization can help ensure successful hybrid offering replication success.

These findings were integrated with established conceptual frameworks in the literature and analyzed. The ability to synthesize these findings with field work in an organization attempting to replicate four strategic hybrid offerings allowed for the opportunity to construct a conceptual framework and resulting propositions that can form the basis of a future quantitative study. This will be the focus on the next chapter, chapter five.

CHAPTER 5

CONCEPTUAL FRAMEWORK

This chapter will provide a synthesis of prior research relating to the topic of replicating hybrid offerings and integrate fieldwork to provide a conceptual framework that can identify a path for future empirical research. The bringing together of established constructs and theoretical models with insights gleaned from a deep analysis on replicating hybrid offerings can advance our understanding of the challenges associated with service infusion strategies and offer managerial strategies that can guide successful performance outcomes.

The factors identified in the field studies form the building blocks for the conceptual model and several key research propositions related to the successful transfer of hybrid offerings. The model also isolates the relational and contextual factors related to the customer engagement that promote or impede the hybrid offering transfer process. What follows will provide an overview of this model and develop propositions for testing.

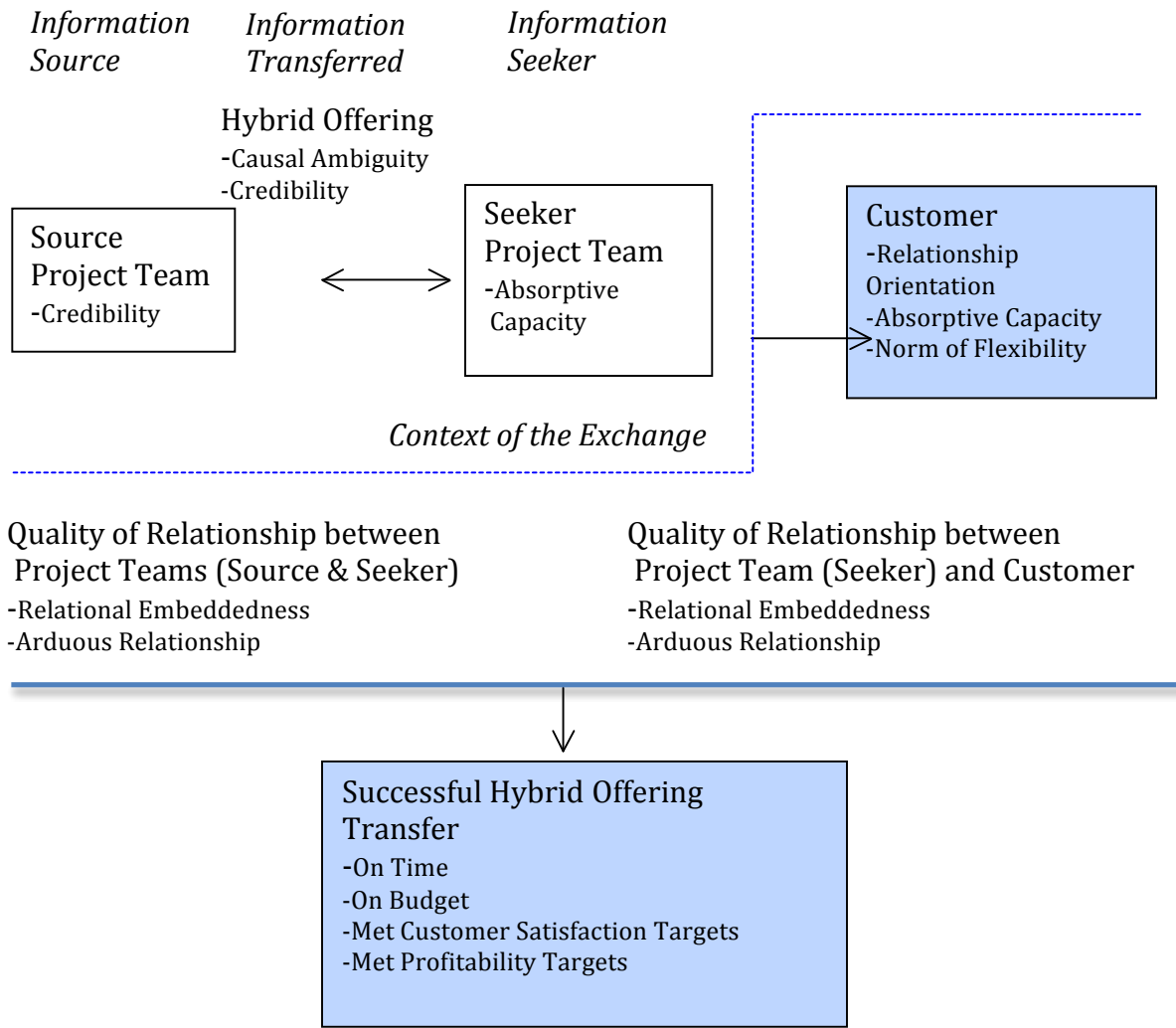


Figure 4. *Proposed Conceptual Model of Hybrid Offerings Transfer*

ESTABLISHED CONCEPTUAL MODELS

The proposed view of the replication of hybrid offering process is represented in Figure 4. This view incorporates sticky knowledge theory as a framework from which to study the hybrid offering transfer process. Sticky knowledge theory explains that the

factors that inhibit the successful transfer of business practices within a firm are found in factors that act as knowledge transfer barriers (Szulanski 1996). As previously explained, the creation of hybrid offerings is conceptualized as a set of business practices embedded in organizational routines. These routines serve as the “instruction manual” on how to create specific hybrid offerings.

This view fits with both previous studies that conceptualize hybrid solutions as more process-centric (Tuli, Kohli, and Bharadwaj 2007) and developed around customer processes. The knowledge of how managers successfully execute these processes to develop and implement hybrid offering is the focus of the knowledge being transferred. As Szulanski (1996) argued, the degree to which knowledge can be successfully transferred within a firm is affected by characteristics of the source and recipient of the knowledge, the knowledge itself, and the context of the exchange. The source of the knowledge in the proposed framework is the project team, marketing group or other firm entity that originally created the first version of the hybrid offering and subsequently is trying to deliberately transfer the solution to different customers of the firm.

The recipient of the knowledge is the project team who is taking the original hybrid offering and attempting to implement it with a different customer organization. The recipient project team works together with members of the customer organization so that they can together co-create the hybrid offering. The knowledge characteristics of the recipient team play an important role in successful knowledge transfers. For instance, the ability of the recipient account team to understand and evaluate the routines used is directly related to their prior knowledge or absorptive capacity. Knowledge characteristics of the buying influential within the customer organization also affect the

degree to which knowledge can be successfully transferred. For example, the degree to which customer organizational members have sufficient knowledge to convey to the project team their business challenges, operational environment, and any other pertinent factors determines the success of the hybrid offering transfer (Tuli, Kohli, and Bharadwaj 2007).

The knowledge being transferred in this case is the knowledge embedded in the organizational routines that lead to the development of a specific hybrid offering. The practices are enacted by project team members together with the customer and follow a reiterative process in which a firm's products and services are combined into an innovative value proposition for the customer. The knowledge transfer literature notes that the exact causal factors of success or failure are not always known (Lippman and Rumelt 1982). This ambiguity about which part of the organizational routine is most crucial to a particular hybrid offering is an identified barrier to the transfer of knowledge (Szulanski 1996).

Finally, the context of the exchange in our model is represented by the quality of the relationship that exists between: (1) the source and recipient project teams and (2) the recipient project team and customer. Arduous relationships between the actors involved in knowledge exchange can impede the successful transfer of knowledge (Szulanski 1996). While past research has shed light on these relational factors, the phase-one and phase-two interviews have identified new variables that are important to hybrid-offering transfers.

PHASE ONE

Phase-one helped establish the key challenges identified with successfully infusing services in manufacturing companies. Several of the capabilities needed to successfully infuse services stressed the importance of replicating hybrid offerings across customer engagements. The ability to replicate these hybrid offerings rests on several organizational factors such as the capabilities of the customer-facing company personnel that include: a high level of professionalism and strong interpersonal skills, boundary-spanning skills, and the specific sales capabilities required to connect with high level executives in the customer organization and form strong relationships.

These capabilities are not only drivers of successful service infusion but of successful hybrid offering transfers. For example, the people-savvy and boundary-spanning skills highlighted in phase-one help successful managers create strong interpersonal relationships within their own organization. The service-oriented sales skills help create close customer relationships that promote transfer success. These required sales skills help promote knowledge transfer and nurture the development of trust between the customer organization and provider organization.

The ability to successfully balance customization with standardization was another important factor that executives identified. Although customers view their needs as distinct, suppliers must be able to successfully manage the customer's expectations in order to provide hybrid offerings profitably. Standardization provides cost savings and consistency and quality during implementation. The executives described various ways in which they tried to capture and learn from previous hybrid offering engagements

through sophisticated knowledge management systems. The interviews helped direct our attention to how these knowledge management processes play an important role in the replication of hybrid offerings.

One factor not identified in previous research but important to replication success related to the customer organization. Customer characteristics such as their willingness to view the supplier as a strategic partner and their ability to understand the value of the hybrid offering are important components of transfer success. Understanding the customer firm with respect to their latent needs or broader organizational goals instrumental to the successful implementation of hybrid offerings (Tuli, Kohli, and Bharadwaj 2007). Managing customer expectations and collaborating with them as a project team co-creates hybrid offerings informs of how a customer's prior level of knowledge and experience with a hybrid offering can impact replication success.

PHASE TWO

The phase-two portion of the study narrowed in on the hybrid offering replication process by examining the factors associated with transferring hybrid offerings in a single firm. The executive interviews provide a rich portrait of factors that promote or impede replication. The themes that emerged have informed the proposed conceptual model by establishing the relationships that exist between the members of the solution provider and the customer as the context for the hybrid offering exchange. Conceptualizing the relationships as a contextual factor allows for a focus on the key variables that managers defined as important drivers of hybrid offering transfer success.

In keying in on the transfer process, the managers highlighted the role that templates played in replication, but, above all, emphasized the critical importance of the

project team, marked by strong relationships that unite team members. Templates allow team members to locate where particular knowledge resides in the organization and how it relates to a particular element of the hybrid offering. This follows what we know from research that all knowledge is socially constructed and that tacit information is best replicated within a social context (Kogut and Zander 1996). While the importance of a well-designed template is not to be overlooked, it is the relationships between and among people who perform the various activities that are crucial to the knowledge transfer process.

Firm and customer organizational factors are captured in the model with particular attention being paid to the previous level of knowledge and experience of employees involved in the engagement. The absorptive capacity of both parties to the exchange influences the hybrid transfer process. Recall that absorptive capacity relates to a firm's ability to recognize the value of new information, assimilate it, and apply it in a productive way (Cohen and Levinthal 1990). For example, high levels of absorptive capacity demonstrated by the members of the firm will allow managers to construct better value propositions, make better decisions on which customers to target for replication attempts, and make strategic investments in key people and technologies that can support a service infusion strategy. Second, higher levels of absorptive capacity within the customer organization can allow customers to better understand and convey their solution needs. They can also provide better operational and political counseling to the provider.

MODEL FOR REPLICATING HYBRID OFFERINGS

Figure 4 is a proposed conceptual model of hybrid offering transfer. Briefly, the framework is comprised of five sets of factors: (1) the characteristics of the source

project team, (2) the characteristics of the seeking project team, (3) the characteristics of the hybrid offering, (4) the characteristics of the relationship exchange, and (5) the characteristics of the customer. Each of the four factors along with propositions based on the literature and field interviews will be presented. Please see Figure 5.

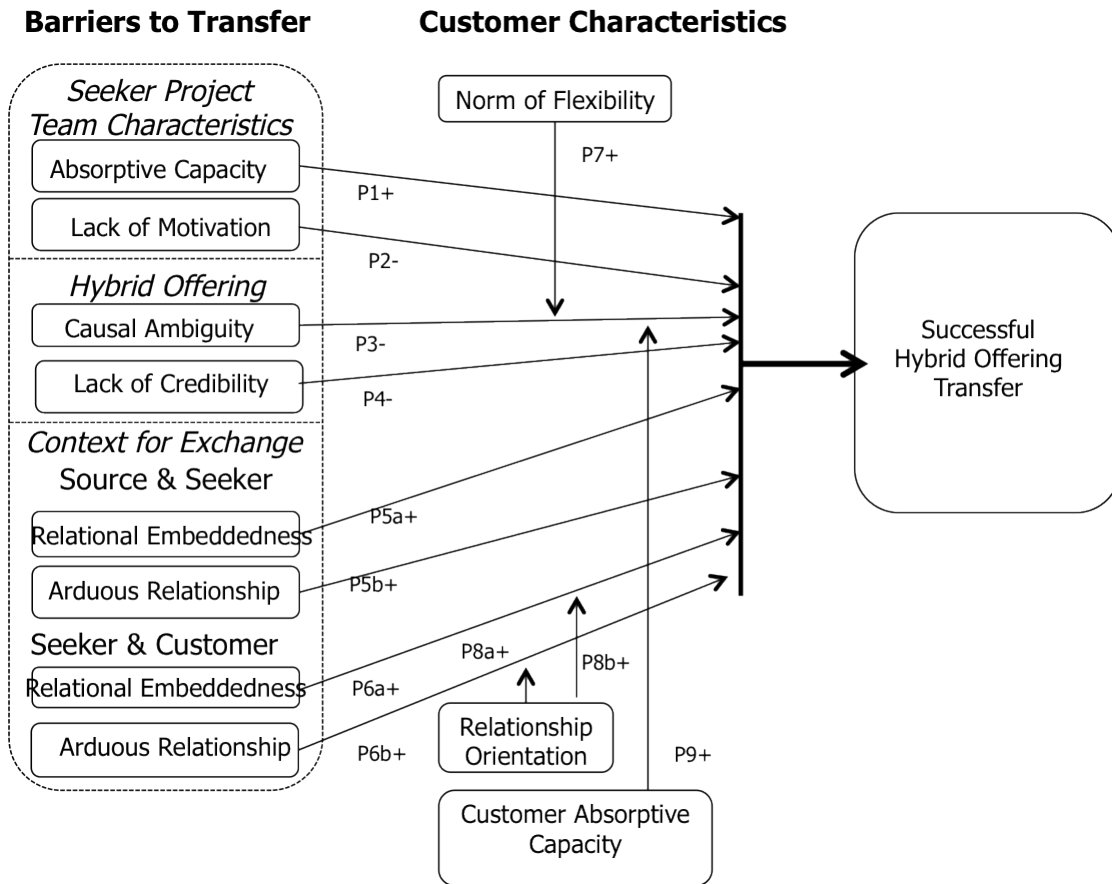


Figure 5. Propositions for Hybrid Offering Transfer

PROPOSITIONS

Characteristics of the seeker project team.

Scholars note the ability to exploit outside sources of knowledge is a function of the prior level of related knowledge (Cohen and Levinthal 1989). This absorptive capacity is an important part of a firm's learning process. Scholars have construed learning as a process of gathering, disseminating, and interpreting information that is central to the marketing process (Slater and Narver 1995). Absorptive capacity is described as a process where a firm absorbs knowledge from its experiences and actions (Cohen and Levinthal 1990). These scholars explain that absorptive capacity rests on three central aspects: an understanding of new information based on prior experiences, the assimilation and integration of the knowledge, and putting the knowledge to use.

Szulanski (2003) explains that at the most basic level absorptive capacity refers to basic skills, shared language and prior experience that is relevant to the knowledge transferred. It can also describe critical prior knowledge such as who knows what and what their level of expertise is (Borgatti and Cross 2003). As it relates to specific knowledge such as hybrid offerings, research emphasizes how prior knowledge can be captured in order to advance a hybrid offering's effectiveness. For example, the extent to which a firm documents the hybrid offering's purpose, actor roles, actions performed, and customer outcomes can act as a form of memory from which to understand a new customer's requirements (Tuli, Kohli, and Bharadwaj 2007). Absorptive capacity has been construed by scholars as a dynamic capability and defined as a set of organizational routines and processes by which firms acquire, assimilate, transform, and exploit

knowledge (Zahra and George 2002). This definition of absorptive capacity is adopted here. These scholars describe a process that represents two different aspects of absorptive capacity, potential and realized. Absorptive capacity is situation specific and depends on the firm's environment. Therefore I propose:

P1: The greater the absorptive capacity of the seeker hybrid-offering project team, the greater likelihood of a successful hybrid-offering transfer.

The recipient of the hybrid offering transfer has an important role to play in the transfer process. Just like the motivation of the source can influence the transfer process, the recipient's motivation is also a factor. The recipient may not buy into the corporate strategy of moving to hybrid solutions or may view such a strategy as something foreign. This phenomenon is recognized in the literature and labeled the "not invested here syndrome" (Katz and Allen 1982). A lack of motivation found in the recipient hybrid offering account team may also result in foot dragging, feigned acceptance and even outright sabotage (Oliva and Kallenberg 2003; Szulanski 2003). Therefore it is posited that,

P2: The higher the levels of motivation of the recipient hybrid-offering account team the higher the probability of a successful hybrid-offering transfer.

Characteristics of the hybrid offering.

As noted earlier, hybrid offerings are a special type of solution that combine products and services into innovative value propositions for customers (Ulaga and Reinartz 2011). Services represent a core part of these hybrid offerings in that they share many of the same properties as pure services. Services can be best described as a deed,

process, or performance provided or coproduced by one entity or person for another entity or person (Zeithaml, Bitner, and Gremler 2009). For an example of a type of business-to-business hybrid offering provider, consider IBM. IBM not only offers traditional products, such as servers and related computing equipment, but also professional services that they combine to offer client solutions such as e-commerce applications, web hosting solutions, and other highly skilled complex hybrid offerings. Services are conceived as intangible, heterogeneous, inseparable and perishable (Zeithaml, Berry, and Parasuraman 1996). Just like pure services, hybrid offerings also share these intangible qualities. The ambiguity about what enables the performance features of a hybrid offering is the focus of this section.

In examining the characteristics of the hybrid offering, it is necessary to first clearly understand the factors that contributed to a successful hybrid offering. The new product development literature points out that managers may not always be aware of the exact factors of production that lead to project success (Lippman and Rumelt 1982). For example, ethnographic studies of service technicians noted that there was a divergence between stated practice contained in policies and manuals and actual practice (Brown and Duguid 1991). The changing environment is constantly exerting influence on the proposed process that the enactor must constantly adjust and adapt to suit local conditions, just like the co-creative process involved in the making of hybrid offerings. Therefore, it is impossible to know before hand, what elements will prove to be critical when the process unfolds in a specific customer context.

Causal ambiguity is defined as ambiguity about what the factors of production are and how they interact during production process (Lippman and Rumelt 1982). Causal

ambiguity among members of the team is quite plausible given the complexity and challenges of managing strategic resources. Hence:

P3: The lower the levels of causal ambiguity in the hybrid offering, the greater likelihood of a successful hybrid-offering transfers.

It is important for the recipient to have a positive impression of the knowledge being transferred. Studies have shown that if a network actor knows that a potential source of information is considered to be a poor source and lacks credibility, the probability of knowledge transfer decreases (Borgatti and Cross 2003). A credible solution, in the eyes of the recipient, allows the recipient to be more open to ideas and increases the amount of information that can be exchanged, thus reducing the costs of knowledge transfers (Szulanski 2003). When a hybrid offering is credible, the seeker-project team may be less likely to critically evaluate and question the knowledge being transferred and fail to closely monitor the exchange process. Previous studies have shown these higher levels of credibility lead to higher levels of trust which contributes to successful knowledge exchange (Tsai and Ghoshal 1998), by allowing managers to think more positively about the solution and support their ability to bring in the needed team resources to ensure success. Therefore it is proposed that:

P4: The higher the levels of credibility in the hybrid offering, the greater the likelihood of a successful hybrid offering transfer.

Characteristics of the exchange relationships.

The quality of the relationship between the source and seeker project teams represents an important part of the hybrid offering exchange context (Szulanski 1996). An analysis of the structure and quality of these relationships is discussed here.

Successfully selling hybrid offerings requires the firm's organizational members to gain superior networking capabilities in order to identify the organizational members who possess the proper skills to consult and coordinate with the customer (Ulaga and Reinartz 2011). It is important that the actors, who comprise the account team dyads, serve a knowledge-bridging role. In this role, they ensure that knowledge from one functional role is communicated to other roles in order to align business processes with the hybrid offering components and satisfy the stated customer's organizational objectives.

Likewise as research has pointed out, hybrid-offering provider firms need to fully understand customer needs and future requirements (Tuli, Kohli, and Bharadwaj 2007). Relational attributes are important in providing a positive context for a successful transfer to occur (Palmatier 2008a; Szulanski 1996; Williams 2007). The quality of the hybrid-offering provider's account team can enhance both cooperative and adaptive behaviors (Palmatier 2008a), which are also critical to successful knowledge exchange (Szulanski 2003).

Close actor participation can improve the effectiveness of the hybrid-offering development process by enhancing information sharing (Palmatier and Steenkamp 2008). Studies have shown that social cohesion and network range also contribute toward successful knowledge transfer (Reagans and McEvily 2003). Specifically, prior research has shown that the number of relational ties a firm has with an exchange partner increases the likelihood of information transfer (Gulati 1995). These relationship characteristics seek to capture the closeness and ease of communication between the project team members within the selling firm. Relational embeddedness and a lack of an arduous relationship help capture the characteristics of these needed relationships. Relational

embeddedness is defined as the degree of reciprocity and closeness among source-and seeking-project teams members (Rindfleisch and Moorman 2001) and arduous relationships is defined as the quality of communication and collaboration that is present in the relationship (Szulanski 1996). Hence:

P5a: The greater the level of relational embeddedness between the source and seeking hybrid offering project teams, the greater likelihood of a successful hybrid offering transfer.

P5b: The more arduous the relationship between the source-and seeking-hybrid project team members, the greater the likelihood of a successful hybrid-offering transfer.

Szulanski (1996) describes a context that hinders the gestation and evolution of the knowledge transfer and describes it as barren. The context represents key dimensions that surround the exchange relationship such as the number and nature of relationships that exist between the firm and the customer organization. Context can also speak to the relationship investments that customers make as they co-create hybrid offerings with the firm. Such as, the degree to which the customer provides access to key decision makers (Tuli, Kohli, and Bharadwaj 2007). Tuli, Kohli, and Bharadwaj (2007a) explain that as a manufacturer begins to work with a customer to develop a hybrid offering, they should maintain strong relationships with multiple individuals in the customer organization so that the appropriate conditions and context can develop, allowing the manufacturer to be comfortable in asking for political and operational counseling. The quality of the relationship between the seeker-project team and customer organization is an important part of the hybrid offering exchange context. Therefore I propose:

P6a: The greater the level of relational embeddedness between the seeker and customer project teams, the greater likelihood of a successful hybrid offering transfer.

P6b: The lower the levels of an arduous relationship between the seeker-and customer-project team members, the greater the likelihood of a successful hybrid-offering transfer.

The Characteristics of the Customer

The presence of norms in business-to-business relationships has been studied in marketing and scholars note that these norms often can enhance a firm's ability to profitability manage customer relationships (Heide and John 1992). These researchers conceptualize norms at the individual exchange level and define them as expectations about behavior that are shared by a group of decision makers. When knowledge sharing is supported by norms in the culture, they are more likely to reflect an environment conducive to knowledge transfer (Szulanski 2003). The norm of information exchange is defined as a widely-held expectation that particular pieces of information that might help the other party with knowledge transfer will be provided (Heide and John 1992). The extent to which customers are willing to alter organizational routines and process can affect hybrid offering engagements (Tuli, Kohli, and Bharadwaj 2007). Flexibility, by creating hypothetical scenarios, allows a supplier to accurately identify customer requirements and actions that need to be taken. Therefore I posit:

P7: The impact of ambiguity on hybrid-offering success will be moderated by customer flexibility. Specifically, as customer flexibility increases, the strength of the relationship between causal ambiguity and hybrid-offering success will decrease.

The overall philosophy of doing business that a customer holds can affect hybrid-offering transfers. Hybrid offerings are customized to a specific customer environment and require deep knowledge of a customer operational processes (Tuli, Kohli, and Bharadwaj 2007). Scholars have recognized the importance of a customer's viewing their relationship with a provider firm as a partnership with a collaborative orientation versus a strictly transactional relationship (Anderson and Narus 1991). A customer's relationship orientation represents the total parts of an organization's mind-set, values and norms that influence the interactions with the firm (Day 2000). A customer relationship orientation is defined as a customer's desire to engage in a strong relationship with a partner. Customers with a high-relationship orientation are more motivated to communicate freely and disclose intimate information and avoid conflict (Palmatier 2008b). Therefore a strong customer-relationship orientation will have a moderating effect on the relationships of the provider organizational members supporting hybrid offering transfer.

Hence:

P8a: The impact of relational embeddedness on hybrid offering success will be moderated by customer relationships orientation. Specifically, as customer-relationship orientation increases, the strength of the relationship between relational embeddedness and hybrid-offering success will increase.

P8b: The impact of arduous relationship on hybrid offering success will be moderated by customer relationships orientation. Specifically, as customer relationship orientation increases, the strength of the relationship between arduous relationship and hybrid-offering success will decrease.

Finally, the customer may also lack the absorptive capacity to capitalize on the solution that is transferred. Such capacity is a function of their preexisting stock of knowledge and places limits on their ability to value, assimilate or apply knowledge to their operating environment (Cohen and Levinthal 1990). The firm at the receiving end of the transfer needs a preexisting set of knowledge in order to assimilate and act on the new solution. Knowledge of the customer's existing environment and how the hybrid offering may interact with it are all critical elements that are a part of a customer's absorptive capacity and contribute to the goal of a successful transfer. Hence:

P9: The impact of ambiguity on hybrid offering success will be moderated by customer absorptive capacity. Specifically, as customer absorptive capacity increases, the strength of the relationship between causal ambiguity and hybrid offering success will decrease.

CONCLUSION

The propositions presented fit the broad conceptual framework proposed in figure 4. Note that that the customer characteristics serve as moderators to two main effects in the model (see figure 5). This chapter developed the conceptual model and propositions. The conceptual model described the overall factor relationships, individual constructs contained in the model, and the application of the model in the research context. The

appendix section contains the measures that can be used to test the proposed model.

These propositions have direct managerial implications and these will be discussed in the next and final chapter.

CHAPTER 6

SUMMARY AND IMPLICATIONS

Chapter five presented a conceptual framework and related propositions to enhance the understanding of hybrid offering transfers. This chapter will review the results of phase one and two and summarize the implications for marketing practice. Finally, the chapter will provide suggestions for future research.

After a review of the pertinent literature, phase one tapped the experience and learning gained by executives at a set of Fortune-100 companies who are charged with infusing services into their business strategies. With the goal of delineating the service infusion domain, phase-one interviews identified challenges associated with successfully implementing a service infusion strategy. One of the challenges that captured a majority of the capabilities needed to successfully infuse services was the challenge of replicating hybrid offerings across customer engagements. The boundary-spanning and relationship building skills in particular were deemed paramount in replicating hybrid offerings, based on the executive interviews.

Building on phase one, a phase two involved a field study of the replication of four hybrid offerings within a single company. Through manager interviews, a conceptual framework emerged that allowed for a deeper understanding of the hybrid offering replication process. Several factors such as the characteristics of the intraorganizational relationships that are established throughout the transfer of a hybrid offering were delineated and examined. Key characteristics of the customer organization that promote or impede hybrid transfer were isolated.

The proposed conceptual model identified factors relating to hybrid offerings, the seeking and source project team, and customer. The propositions captured the findings from phase one and phase two that stress the importance of how group relationships and the characteristics of the customer organization influence the hybrid-offering transfer process. Customer characteristics can moderate the impact that institutional and relationship elements have on hybrid offering transfer. The propositions serve as the foundation for future research.

MANAGERIAL INSIGHTS

The results of this research have important implications for both hybrid offering providers and customers. Previous research has stressed the important of codifying the lessons learned and critical knowledge elements into a repeatable template or blueprint. Providers create sophisticated knowledge management systems but these firms still struggle in spite of these large investments. While dominant attention is given to capturing technical detail and documenting key processes associated with hybrid offering implementation, the network of relationships needed to support knowledge transfer and ensure implementation success are often neglected. Providers rely too often on established processes and activities that involve enterprise software systems that coordinate the complex activities required to implement hybrid solutions. There is a need for providers to focus on sharing tacit knowledge through interaction between key customer and provider team members. The most successful engagements were those that relied on an improvisational process, including phone calls and in-person meetings, where the tacit elements of the hybrid offering implementation can be exchanged.

Identifying hybrid offerings that are most amenable for replication can also impact replication success. For example, managers explained how executives often chose solutions that were the most profitable as candidates for replication. This approach, indicative of short-term thinking, places too much emphasis on near term results. Hybrid offerings should be selected based on factors that will support future replication such as the relational skills of the source team, the level of perceived credibility of the hybrid offering, and the degree to which the hybrid offering has a clear value proposition that resonates with potential new customer engagements.

Understanding the characteristics of the customer organization can lead to several replication-supporting strategies. Managers can improve their success by incorporating customer characteristics as another variable in their marketing efforts. For example, classifying customers with respect to their propensity on willingness to form relationships and allow the access to key customer personnel can contribute to hybrid-offering implementation success. These propensities will also impact the value of firm-to-customer interactional exchanges. Engaging customers for replication attempts based on their propensity to be flexible and modify or change their organizational processes can also lead to more successful replication.

LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

There are several limitations to this research that need to be considered when evaluating the impact to theory. First, the interviews rest on key informants and previous scholars have expressed caution with respect to the generalizability of findings (Phillips 1981). However, the managers were chosen for their unique perspectives on factors associated with replication and were confirmed through test of validity, such as utilizing

two researchers for conducting the interviews and coding interview responses. In addition, because the interviews were conducted over a short period of time, a future longitudinal study would add to the understanding of the hybrid-offering transfer process. Future research can benefit from interviewing multiple members of the hybrid offering project team as well as members of the customer organization to increase the validity of the relational factors. Finally, as with the creation of any conceptual framework, there are questions yet to be explored: What measures best capture the constructs in the model? What other independent and dependent variables are important to hybrid offering replication success? Empirical research can and should explore these questions more fully but in an integrative manner. It is my hope that the development of this proposed general framework for hybrid-offering transfers will prove a useful tool in delineating the complexity surrounding the replication hybrid offerings for business customers.

CONCLUSION

This was the final chapter in this research into the examination of hybrid offering replication. It summarized the findings and presented managerial findings. Finally, the limitations of the research and suggestions for future study were presented.

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APPENDIX A
PHASE ONE INTERVIEW GUIDE

Questions:

1. Does your organization currently offer - or plan to offer - any of the services highlighted in black?
2. In which of these services situations has the company been successful (give examples if possible)?
3. Looking across the continuum at the services that you do offer, what challenges have you faced in developing and delivering these services?
4. In what situations has the company not been successful to date?
5. What changes have you made to your organization in order to provide these services in addition to your products?
6. Have you used partners in delivering these services?
7. Have you found that new competencies and capabilities are needed to become successful in developing and delivering services across this services continuum?
8. How have your customers participated in the provision, design, or development of any of the services shown in black on the figure?
9. How have you standardized services to become more efficient in delivering them? To what extent have you customized the services for individual clients?
10. How do you demonstrate the benefits associated with your services (or service-led solutions) to clients?
11. How challenging is it to communicate the value of your services through your pricing? To what extent do clients resist paying a fee for services?
13. Are there types of services that you are offering or planning to offer that we have not discussed? What are they?
14. Besides yourself, we are interviewing the following people in your organization. Are there other key individuals in the company that you believe we should talk to about the topics and issues we've discussed today?

APPENDIX B

PHASE TWO INTERVIEW GUIDE

Hello, I'm Jim Salas, a doctoral student at Arizona State University in the U.S. As a part of my doctoral dissertation, I am conducting a study in partnership with (Company) that centers on how successful companies repeat hybrid offerings across customers. A hybrid offering combines products and services into innovative value propositions for customers. For example, (Insert example here)

The purpose of the research is to identify the factors that facilitate and hinder the successful replication of a new hybrid offering. You have been identified as an expert at (Company) in attempting to repeat hybrid offerings with customers. I'd like to draw upon your experience to learn more about the process and various roles that are performed as a hybrid offering is originally developed and then attempted to replicate at other similar customer opportunities. Rest assured your responses to these questions are completely confidential. Your participation in this study is voluntary. If you choose not to participate or to withdraw from the study at any time, there will be no penalty. The interview is scheduled for 90 minutes. Because I want to listen intently and stay focused on our conversation, I would like to record the interview so that I can ensure that I have fully captured the most salient aspects of our interview. From a research perspective, it also allows me to confirm the validity of our results, however, neither the recording nor the transcripts will be given to (Company). In fact, no identifying information at the individual level will be given to (Company) nor will your name be identified with any of the data or results. Only summary data across all engagements will be presented to (Company). The recordings and transcripts are purely for our research purposes. The recordings will be promptly converted to transcripts. Once created, the recordings will be destroyed and transcripts, without individual identifying information, will be stored securely on ASU's campus. You must be 18 or older to participate.

In accordance with the Non Disclosure Agreement that I fully accepted, please rest assured that any publications that may issue from this research will not reveal the identity of your firm and will not provide any identifiable information at the firm or individual-manager level.

In preparation for our interview today, we asked representatives at (Company) to provide a list of hybrid offerings that (Company) has attempted to replicate in the past two years. We asked for a set of successful and not so successful replication attempts. The specific project I want us to focus on for today's interview is: (Name of Hybrid offering/Customer Project/Customer Project).

Questions

Project Overview

I'd like to start with some general questions about the (Name of Hybrid offering/Customer Project/Customer Project) project.

1. Please tell me about the project? Walk me through it. How did it come to fruition?

2. What was your role in the project?
3. How does this project contrast with your more typical customer projects? In terms of roadblocks, challenges, enablers, etc.

Hybrid offerings

Now, I'd like to talk to you about the (Name of Hybrid offering/Customer Project/Customer Project).

4. Please describe the overall level of success of the project? More successful vs. less successful. Why?
5. What were the factors that contributed to the project being more successful or less successful?
6. Where did the idea for this project originate?
7. Thinking about all of the projects you are typically involved in, what percentage of them are similar to this project? Solution sales versus typical product sales.
8. What was the process or blueprint you followed to create (Name of Hybrid offering/Customer Project)?
9. Was the process or blueprint easily understandable? Roles and expectations were clear?
10. How do you measure performance for (Name of Hybrid offering/Customer Project)? How is the customer's point of view captured? Do you measure profitability? On time performance?
11. How long was the (Name of Hybrid offering/Customer Project) engagement, from first customer meeting to final implementation?
12. What would you say was the biggest challenge in selling (Name of Hybrid offering/Customer Project)?
13. If your (Name of Hybrid offering/Customer Project) engagement was successful (or not so successful), what would you say are the distinguishing characteristics of the customer? The engagement? The project team members?
14. Have you ever been contacted by a different account team for help in replicating (Name of Hybrid offering/Customer Project)? How many times has this occurred in the past 18 months? How were you contacted? Please describe relationship you have with these account teams.

Customers

I would like to talk about the customer that you sold (Name of Hybrid offering/Customer Project) to. For these next sets of questions, just focus on the (Name of Hybrid offering/Customer Project) engagement.

15. What differences, if any, are there between the customer that you sold (Name of Hybrid offering/Customer Project) vs. those that you sell pure products or pure services to?
16. What differences would you say are there between your (Name of Hybrid offering/Customer Project) customer versus those where you were successful (not so successful)?
17. How would you describe your (Name of Hybrid offering/Customer Project) customer? Large or small? Complex?
18. Over the course of the engagement, how often do you interact directly with the customer? Is this typical?
19. How would you describe their level of knowledge about (Name of Hybrid offering/Customer Project)? How would you describe their level of knowledge overall?
20. Please describe the level of involvement of your customer during the (Name of Hybrid offering/Customer Project) engagement. What levels or different departments of your client organization were involved? What were their titles?
21. How would you describe your relationship with (Name of Hybrid offering/Customer Project) customer? Transactional vs. strategic? Close vs. distant?
22. Please describe the culture at your (Name of Hybrid offering/Customer Project) customer? Are they innovative vs. stay with tried and true? Flexible vs. stuck in their ways? Fear or embrace change?
23. How likely would you say your (Name of Hybrid offering/Customer Project) customer would be to participate and respond to a survey about the hybrid offerings you sell them?

Project Team

I would like to talk about the entire project team that was responsible for supporting your (Name of Hybrid offering/Customer Project) engagement. These would be the team members who are responsible for the performance of the (Name of Hybrid offering/Customer Project).

24. How many project team members were there in (Name of Hybrid offering/Customer Project) engagement? What titles and levels are represented?
25. Please describe the project team's overall level of knowledge.
26. Does the team follow standard operating procedures when supporting a (Name of Hybrid offering/Customer Project) engagement or are things more improvisational? Please explain.
27. Please describe the quality of the relationship found among members of the team? Close vs. distant? Friendly vs. reserved?
28. When the project team is trying to replicate (Name of Hybrid offering/Customer Project), how often do team members communicate with the original source account team?

Now I want to talk about overall culture at (Company).

29. How would you describe the culture at (Company)? If a good friend of yours were considering a job at (Company), how would you describe the work environment? Would you recommend (Company) as a good place to work?
30. How would you describe (Company)'s commitment to customer satisfaction?
31. Do you have a formal account management program in place?
32. How would you describe the level of collaboration at (Company)?
33. How would you describe the level of information sharing at (Company)? Are there any formal solutions in place for collaboration and information sharing? If so, please describe them.
34. Please describe how (Company) measures up when compared to your next best competitor in terms of: innovation, industry leader, customer satisfaction, and profitability.

Demographics

35. How long have you been with (Company)? What is your current position at (Company)? How long have you been in this role? Profession? Industry?
36. Have you worked in other units or divisions at (Company)? Which ones?

General Questions

37. What do you think is the single most important factor in successfully selling (Name of Hybrid offering/Customer Project)?
38. What are the two or three things you look for in a potential customer when you consider targeting them for a (Name of Hybrid offering/Customer Project)?

APPENDIX C
PROPOSED MEASURES

Proposed Measures

Independent Variables	Definition	Type	References
Absorptive Capacity	Ability of the recipient unit to identify, value and apply new hybrid offering	9-items	Szulanski, 1996
Causal Ambiguity	Uncertainty about the factors of performance of the hybrid offering.	6-items	Szulanski, 1996
Lack of Credibility	The degree to which the hybrid offering is perceived as unreliable.	3-items	Szulanski, 1996
Relational Embeddedness	The degree of reciprocity and closeness of the relationship.	7-items	Rindfleisch & Moorman, 2001
Arduous Relationship	The ease of communication and intimacy of the relationship	3-items	Szulanski, 1996
Relationship Orientation	A desire to engage in a strong relationship with a partner.	5-items	Palmatier et al., 2008
Norm of Flexibility	Customer's norm of flexibility is defined as a bilateral expectation between the firm account team and the customer of a willingness to make adaptations as circumstances change	3-items	Heide & John, 1992
Dependent Variables	Definition	Type	References
Successful Hybrid Offering Transfer	The degree to which the hybrid offering transfer was on time, on budget, met customer satisfaction targets, and company profitability targets.	9-items	Szulanski, 1996