

The Impact of the Internet on Experience Services and the Cost of Information: An Updated Conceptual Model of Innovation vs. Imitation and Firm Performance in Services.

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Abstract

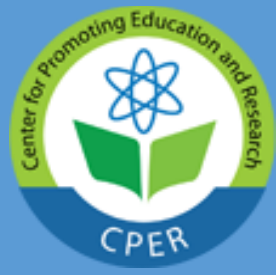
The extant service innovation literature suggests the high cost of an information search, when evaluating a new service provider, creates switching costs that hold customers hostage, allowing first-movers to recoup their investments and sustain an advantage. We utilize Transaction Cost Economics as a theoretical foundation to expand the service innovation literature by examining the Internet's impact on the cost of information. We propose that as a result of the Internet, experience services offered by service firms have largely become search services, with lower levels of information asymmetry. We also suggest that the Internet has had little impact on information costs related to firms that offer largely credence services. These services will continue to exhibit higher levels of information asymmetry. Finally, we present a moderated model of innovation vs. imitation strategies that suggests that firms offering search services will increase firm performance through imitation, while credence firms will increase firm performance through innovation strategies.

The extant service innovation literature suggests the high cost of an information search, when evaluating a new service provider, creates switching costs that hold customers hostage, allowing first-movers to recoup their investments and sustain an advantage. We utilize Transaction Cost Economics as a theoretical foundation to expand the service innovation literature by examining the Internet's impact on the cost of information. We propose that as a result of the Internet, experience services offered by service firms have largely become search services, with lower levels of information asymmetry. We also suggest that the Internet has had little impact on information costs related to firms that offer largely credence services. These services will continue to exhibit higher levels of information asymmetry. Finally, we present a moderated model of innovation vs. imitation strategies that suggests that firms offering search services will increase firm performance through imitation, while credence firms will increase firm performance through innovation strategies.

Keywords: Information Asymmetry, Services, Experience Services, Credence Services, Innovation, Imitation

INTRODUCTION

Much has been studied and written about the importance of innovation as firms strive to achieve and sustain a competitive advantage. Creating barriers to imitation by usurping market share and creating customer loyalty can help a firm recoup innovation investments and bolster firm performance. However, a competing stream of research suggests that if the barriers to imitation are not sufficient to protect the first mover, imitation might be a profitable



alternative (Lee, & Zhou,2012). Specifically, it has been posited that service firms have a unique challenge in safeguarding their investments, since the inherent intangibility of services makes it difficult to prevent competitors from quickly imitating and entering the first-movers market. Although patents and copyright are largely unable to protect innovation investments in intangible offerings, the extant innovation literature has identified other barriers to imitation needed by innovating service firms, in order to be successful.

One of those barriers that has been identified in innovation research, is the switching costs that exist for a service customer when they are considering a switch to an imitator's offerings. Due to the intangibility of services, historically, high levels of information asymmetry have existed between buyers and sellers, whereby the seller usually has more information than the buyer. Therefore, when a customer is considering a new provider, he, or she, must conduct an information search to garner information regarding the new provider's service offerings. Transaction cost economics (TCE) posits that due to the cost and difficulty of seeking information on an intangible service, when high levels of information asymmetry exists, customers are more likely to remain with their current provider to avoid the transaction costs associated with switching.

An expansion of the information asymmetry literature in management, suggests that products and services offered by a firm have qualities that lie on a continuum ranging from search qualities, those elements that can be assessed prior to purchase, experience qualities, that can only be evaluated after the offering is purchased and consumed, to credence qualities, that have such high levels of information asymmetry that it is difficult to evaluate even immediately after the service is complete. (Nelson,1970; Darby & Kami, 1973; Brush & Artz, 1999). Due to the intangibility of services, it has generally held that service firms offerings exhibit largely experience and credence qualities (Stigler, 1961; Darby and Kami, 1973).

Within this manuscript we propose that earlier research, suggesting that services can depend on customer transaction costs to retain customers, and protect innovation investments, is somewhat outdated. Due to the plethora of information now available on the Internet, which we identify as a disruptive technology, switching costs, as an imitation barrier, are crumbling. We propose a changed model of innovation and imitation in service firms, resulting from the decline of information asymmetry, within certain information asymmetry categories. Due to the ease of accessing some types of information on the Internet, many service customers are no longer being held hostage by the transaction costs associated with an information switching costs and are now free to pursue alternative service providers when imitators enter the marketplace.

One important distinction of our model is that we contend that not all types of information are readily available online. We argue that service firms no longer exhibit experience qualities, that can only be evaluated after they are purchased and consumed, in their offerings. Access to information from previous customers, that have already experienced the service, are now qualified to offer their evaluations to potential customers via the Internet. This phenomenon, brought on by the Worldwide Web, now allows customers to access accurate information and evaluate the service offering, prior to purchasing. In this way, experience qualities become search services with low levels of information asymmetry. Therefore, we contend that firms with, what are now, search qualities, are no longer protected by customer switching costs.

Credence services, on the other hand, continue to exhibit high levels of information asymmetry. Because credence qualities can't be evaluated, even immediately after the service is performed, previous customers are unlikely to be able to offer an accurate evaluation. Therefore, the transaction costs associated with an information search still acts as a barrier to customer switching, suggesting that firms with credence elements have the ability to increase firm performance through innovation.

Our conceptual model contributes to the innovation and services literature in several ways. First, the extant literature has not examined the impact of the Internet on service firm innovation and performance. We also expand the existing information asymmetry typology by suggesting that the experience qualities of a service offering can shift categories to exhibit search qualities when technology decreases information asymmetry. Finally, we offer an



updated model of innovation, imitation, and firm performance in the face of technology that has fundamentally changed the way service customers access information. This model identifies credence qualities and search qualities as variables that moderate the relationship between innovation, imitation, and firm performance.

LITERATURE REVIEW

Services

This research focuses exclusively on service firms, as much of the extant literature agrees that service firms are fundamentally different from manufacturing firms and, therefore, additional insight can be garnered from studying them in isolation (Shostack,1977; Mills,1986; Reed & Storrud-Barnes,2009). There is a long stream of research addressing, exclusively, service firms. For example, in 2018 Anning-Dorson et. al., examined how service firms utilize their customers through customer coproduction to enhance innovation and firm performance. Although beyond the scope of this manuscript, customer co-production has been identified as one aspect unique to service firms. The findings of this empirical study concluded that when co-production is achieved, service firms benefit from the competencies of their customers to enhance firm performance through firm performance. Other studies have addressed many different aspects of services and firm performance including consumer-firm-interface and innovation (Huffman & Skaggs,2010); international diversification (Capar & Kotabe, 2003); Order of entry effect in developing markets (Magnusson, Westjohn, & Boggs, 2009); Entrepreneurial orientation (Sok, Snell, Lee, & Keo, 2017); Supplier development practices (Krause & Scannell,2002); and market orientation (Agarwal, S., Erramilli, M. & Dev, C.S., 2003)

Information Asymmetry

One construct often included in services research is information asymmetry. George Akerlof first popularized the construct, information asymmetry, within the management and strategy literature, in his 1970 article “The Market for ‘Lemons’: Quality Uncertainty and the Market Mechanism.” In this seminal paper, Akerlof uses the used automobile industry as an example, to suggest that when sellers have more information about the quality of a product or service than buyers have an imbalance of information or information asymmetry, gives the seller a competitive edge (Akerlof, 1970; Oliver Williamson 1979).

Transaction cost economics (TCE) posits that when information asymmetry exists between a buyer and seller, and the seller has more information than the buyer, an exchange between the two parties becomes problematic, due to the potential for opportunistic behavior on the part of the seller, which may prevent him, or her, from sharing accurate or negative information with the buyer (Williamson,1979; Williamson,1981). In this case, TCE asserts that the buyer must undergo a costly and difficult information search in an attempt to acquire accurate information related to the service offering (Williamson, 1979; Chung-Hoon & Young-Gul,2003; Magnusson & Westjohn, 2009; Huffman & Scaggs, 2010)

Due to the intangibility of service offerings, this imbalance of information is notably relevant in services. Extant research has investigated a number of issues related to information asymmetry in services including, information asymmetry and co-production in healthcare services (Barile, Saviano & Polese,2014); Information asymmetry and economies of scope in service firms (Nayyar,1993); Service outsourcing under co-opetition and information asymmetry (Xu et. al.,2017); Information asymmetry and governance in information security services, (Wu & Saunders,2016); and, trust in the face of information asymmetry (Pedeliento et. al., 2017).

Search, experience, and credence services

An expansion of the information asymmetry literature in management, suggests that products and services offered by a firm have qualities that lie on a continuum with varying levels of information asymmetry, ranging from search qualities, those elements that can be assessed prior to purchase, experience qualities, that can only be evaluated after the offering is purchased and consumed, to credence qualities, that have such high levels of information asymmetry that it is difficult to evaluate even immediately after the service is complete. (Nelson, 1970; Darby & Kami, 1973; Brush & Artz, 1999). This typology has often been used as the theoretical underpinnings of



service research (e.g. Nayyar, 1993; Mitra, Reiss, & Capella, 1999; Wan, Nakayama & Sutcliff, 2012; Mortimer & Pressey, 2013).

Innovation vs. Imitation

Much of the existing entrepreneurship and management literature exhibits a strong bias that innovation leads to increased firm performance and competitive advantage. (Schumpeter, 1934; Dess, Lumpkin, and Covin, 1997; Wiklund, 1999, Huffman & Skaggs, 2010). Innovation is used to invigorate and renew organizations. Innovation can also redefine markets, industries, and lead organizations to increased competitiveness and performance (Tuan, Nhan, & Ngoc, 2016; Dotzel & Shankar, 2019). The advantages associated with innovation and first-movers, often revolve around the benefits of building competitive barriers, which include usurping market share (Kerin, Varadarjan, & Peterson, 1992); building brand and customer loyalty (Pappu & Quester, 2016); achieving economies of scale (Yang, Sang-Gun & Lee, 2013); and causal ambiguity (Reed & DeFillippi, 1990).

Although much of the literature focuses on the benefits of innovation, a competing stream of research suggests that, alternatively, firms may realize improved performance by implementing an imitation strategy (Yoon, 1998; Lee & Zhou, 2012). The imitation research asserts that while the innovation literature focuses on the sustainable competitive advantages that can be created through innovation and barriers to imitation, if those barriers are not sufficient to protect the first mover's sustainable competitive advantage, imitation may be a more profitable strategy (Makadok, 1998; Wanasika & Conner, 2011; Corniani, 2012). This stream of research has identified the benefits of imitation, including reduced R&D investments (Wanasika & Connor, 2011) and learning from first-mover mistakes (Yoo & Choi, 2005).

THEORY AND PROPOSITIONS

Transaction Cost Economics

Transaction cost economics (TCE) is the theoretical foundation of this research. First popularized by Oliver Williamson in 1979, and adapted from the economics literature, TCE was initially applied in the management literature to address efficient governance structures. Williamson's theory suggests that market forces are always the most efficient governance structure, because people are opportunistic, by nature, and therefore must be monitored and controlled, to ensure that they are acting in the best interest of the owners. Because controlling and monitoring have a cost associated with it, Williams proposed that it is more efficient to let market forces take control, to avoid the additional cost of monitoring and controlling. The only exception to this is when specific assets exist that must be protected (Williams 1979; Muller et. al., 2017).

The second assumption of TCE is that of bounded rationality. Williamson asserts that an individual's ability to make decisions is limited by the information they have available, the information processing limits of their minds, and the finite time available to make a decision. As a result, they are unable to assess every possible aspect and contingency of a contract, thus, opening the door for opportunistic behavior (Williamson, 1979). Williamson concludes that due to the existence of opportunism, and bounded irrationality, in the absence of specific assets, market forces are a more efficient means of control.

Since Oliver Williamson's introduction of transaction cost economics into the management literature in the 1970s (e.g. Williamson, 1979; Williamson, 1981), the theory has evolved and been used to examine a plethora of issues related to strategy, management, and other business disciplines. Over the past several decades, academic research utilizing TCE theory has become a significant contributor to the understanding of the nature of a firm and its markets. (Muller & Aust, 2011). As examples, TCE has been used as the theoretical underpinning in research examining forward channel integration and firm performance (Brettel et. al., 2011), customer retention (Jones, Mothersbaugh, & Beatty, 2002), integration of logistics and marketing in procurement activities, (Nechaeva, Andrianova, & Sadriev, 2016), integrated supply chains (Wever, Wognum, Trienekens, & Omta, 2012), employee empowerment (Yin, Wang, & Lu, 2019), Portfolio management (Luzzini, Caniato, Ronchi, & Spina, 2012), and investment strategies (Nkeki, 2018)



The services literature has embraced the tenets of transaction cost economics, when examining such issues as customer loyalty and retention (Blut et.al.,2014), intermediation in banking services (Bag, 2013), telehealth as a service delivery method in the healthcare industry (Seye, Keelan, Everett, Kim, & Mitchell,2019), and, service innovation in the all-inclusive hotel industry,(Rayna & Striukova, 2009).

Much of this the services research has focused on the inherent high cost of an information search, due to higher levels of information asymmetry, associated with the intangibility of services. (e.g Patterson & Smith 2003; Huffman & Skaggs, 2010). As discussed above, historically, many service customers have been at a disadvantage when assessing the quality of services. This is because services are, by definition, largely intangible, creating an environment of information asymmetry, whereby the service provider has information about the service that the customer does not have (Akerloff,1970). Providers, acting in their own best interest, may not share negative or accurate information about their service. This situation requires the customer to seek out accurate information on their own if they wish to assess a service provider. However, obtaining information is time-consuming and costly, creating switching costs as service customers were more likely to stay with current providers and repurchase, rather than engage in a costly information search to switch to an imitator when they appear on the market. In this way, an information search acts as a barrier to imitators when they appear in the market, thus, allowing the innovator more time to recoup their costs of innovation, and erect additional barriers such as market share and brand loyalty, in order to achieve and sustain a competitive (Huffman, 2003; White and Yanamandram 2007)

Huffman and Skaggs, 2010, utilize TCE in their empirical study of service innovation, suggesting that the high cost of an information search, due to the intangibility of a service offering, acts as a barrier to switching, creating loyal customers and allowing service firms to recoup their innovation investments. They also concluded that the relationship between innovation and firm performance is moderated by the level of the consumer-firm interface.

Jones, Mothersbaugh, and Beatty, 2002, conducted a study to identify the underlying dimensions of service customer switching costs and concluded that one of these dimensions was pre-switching search and evaluation costs and that when the cost of the information search was high the customer was more likely to remain with their current provider. Bhattacharyya & Nanda, 2000, conducted an empirical study of innovation in financial services concluding that switching costs increase innovation in that industry.

Disruptive Technologies

In the last decades, however, the tremendous growth of the Internet has obliterated this barrier of protection for many service innovators. Gary Evans, 2017, reported that globally, in 2015, 3.2 billion of the seven billion people on the planet were connected to the Internet. In 2016, the American Community Survey (ACS) found that 89 percent of all U.S. households had a computer, an unfathomable increase from the Census report in 1997 that reported only 18% of homes had computers (in Evans,2017). Few could predict the speed and impact the Internet would have on all aspects of the business. (Evans,2017). Researchers have identified the Internet as a disruptive technology that has radically altered the way business is conducted around the world (Baesens, Bapna, Marsden, Vanthienen, & Zhao, 2016). In his review of the disruptive technology literature, Gary Evans, 2017 declares that disruptive technologies are “changing the very fabric of our decision making and how we deliver products and services” (Evans 2017, p. 209).

Clayton Christiansen first coined the term “disruptive technologies” as an expansion of his destructive innovation theory, which suggests that radical innovation by smaller new firms may allow them to usurp the markets of larger incumbents by focusing on low-end customers, being ignored by the incumbents, or by identifying new markets not being serviced by the large incumbents(Christensen & Bower,1996). Disruptive technologies, as described by Christensen, refer to technology’s specific role in upending an industry when it is so radical that it fundamentally changes the way business is done. Knowledge sharing through the Worldwide Web now allows both companies, and consumers to utilize increased research capabilities with relative ease (Baesens et. al., 2016; Evans, 2017). There are many examples of how the disruptive web has fundamentally changed the way consumers gather information and interact with service providers. Banking customers are now able to manage accounts without ever stepping foot



inside a bank, travelers can make and manage hotel reservations with the click of a button, and consumers can gather information and choose an auto repair service, based on information they obtained on the Internet. The transaction costs associated with gathering information on intangible services have been eroded by technology and has resulted in a decrease in information asymmetry. Consumers now have access to knowledge and information which can be reproduced and distributed “for near-zero marginal cost” (Lee 2001). Not only do customers now have the ability to gather more information at a nominal cost, but they can do so without sacrificing the quality of this information (Evans & Wurster, 1997; Lee, 2001).

Historically because high levels of information asymmetry existed with intangible services, customers were more likely to remain with a service provider, even when they were not satisfied with the service, to minimize transaction costs in the form of an information search. (Huffman & Skaggs, 2010; Jones, Mothersbaugh & Beatty, 2002; Zhu et. al., 2011) Jones et. al., 2002, argued that switching costs act as barriers that hold service customers hostage in service relationships.

However, as the Internet decreases information asymmetry in some instances, this barrier is diminished and service customers no longer are locked into a provider. They are now more likely, and better able, to search for information about new imitators that have entered the market. Customers now can switch to an imitator, once they enter the market if they are not satisfied with their current provider. Even if they are satisfied, they may decide to switch for other reasons, such as price or convenience (Ralston, 2003; Bogomolova & Romaniuk, 2009). Management research has also identified better service (Agarwal, 2002) and consumer attitude toward alternative providers (Patterson & Smith, 2003; De’alasanandro et. al., 2015)

As long as switching barriers are in place, first movers in services can recoup their investment and solidify competitive advantage. They are protected from competition and can develop brand loyalty, and preferable networks. However, when transaction costs are eliminated by technology’s ability to provide information at a nominal cost, the investments of first-movers in services are no longer guarded, making the sustainability of any competitive advantage more difficult. Although there is a consensus within the extant strategy literature that innovation strategies will have a positive impact on firm performance, the services literature suggests that many types of typical barriers in place to guard against product imitation, such as patents and copyrights, do not pertain to services, due to the intangibility of the offering, which makes it difficult to protect (Song, Di Benedetto & Zhao, 1999).

While the decrease of transaction costs through Internet technology, and the resultant difficulty associated with protecting innovation investment, make some service innovation less appealing for many service firms seeking to maximize their performance, imitators are able to enter the market and compete against first-movers, by avoiding many of the R&D expenses incurred by first movers, as they benefit by learning from first-mover mistakes and thus, improving on services offered by innovators (Shankar et al., 1998). They also benefit from cost savings as they piggy-back off innovation expenses first movers incur (Song et. al., 1999; Huffman & Skaggs, 2010.) With customers better able to search out information when considering later entrants into the market, later entrants can usurp market share from first-movers as customers switch to new alternatives.

We have argued that the role of the Internet as a disruptive technology has fundamentally changed the way service customers seek out information. The nominal cost of information, via the Internet, has transformed many service industries by now giving service customers the ability to conduct an information search at a nominal cost, destroying barriers that protected service innovators. Without these barriers, and thus, a means to see a return on their innovation investments, some service firms no longer see opportunities from innovation activities. At the same time, the lack of barriers provides an opportunity for service imitators to enter markets and usurp first-mover customers with services at a lower cost, or a better value.

Not all types of service offerings are threatened by the Internet’s ability to decreased switching costs. The management literature has expanded information asymmetry research and suggested a typology, that classifies product and service elements into three categories, based on the level of information asymmetry that exists within the



product or service offering (Nelson,1970; Darby and Karni,1973). The first category refers to search goods and services, describing those products with low levels of information asymmetry that can be observed and evaluated before purchase. An example of a search good would be a piece of furniture. A potential buyer could most likely evaluate a dining room table through observation on the showroom floor. Experience goods and services cannot be evaluated until after purchase, such as a meal at a restaurant, while credence services and services are difficult to assess even immediately after it is purchased, due to the highest level of information asymmetry. An example of a credence service is the services provided by a physician.

The literature includes several studies that have addressed the impact of these different categories, within an online format. Wan et. al. conducted a study exploring consumer on-line shopping behavior across search, experience, and credence goods. They concluded that there were significant differences in shopping behavior depending on which category of service they were evaluating (Wan et. al.,2012). Also, a study by Micu & Pentina (2015), of search and experience categories, and their impact on online brand advertising and news synergies, found that consumer perceptions are different, depending on the level of information asymmetry (search vs. experience).

In the past, the services literature has identified service offerings as having largely experience or credence elements, due to the higher levels of information asymmetry that intangible services exhibit (Stigler, 1961; Darby and Karni,1973). We contend that the advent of the Internet, however, has created a shift in this categorization of services. While traditional experience services have previously been protected from easy imitation, that is no longer the case. Information on experience services is often readily available on the Internet. Unlike credence goods, customers can evaluate experience services after purchasing, and consuming, them. For example, a customer no longer has to wait until after he, or she, purchase a stay, and spends the night in a hotel before they can assess their experience. Previous customers can evaluate experience elements of a hotel and share their evaluation on-line. Potential customers can read those evaluations and make an informed decision, in advance of a purchase, based on the information from the Internet. In this way, experience goods become search goods that can be evaluated before purchase, without a costly information search.

The above discussion highlights the shift of information asymmetry levels in experience services as they now operate as a search service. This has practical implications for a service firm. Firms that once offered experience services, and utilized the first-mover strategy, are no longer protected from imitators. Those experience services have morphed into search services that do not create barriers for the service firm. Customers are free from switching costs and are now able to switch to imitators when they enter the market. Without the protection of transaction costs, firms that offer search services should consider imitation as a strategy to maximize performance. An imitation strategy allows firms to profit by piggybacking on the innovations of competitors. The above discussion supports P1a and P1b as stated below:

P1a: Lower levels of information asymmetry, shifts experience services to search services, decreasing switching costs for those service customers.

P1b: Lower levels of information asymmetry, for search services, will result in higher levels of imitation than innovation, by those firms providing search services.

Credence Services

If a service firm possesses many credence elements within their service offerings, they are protected from rapid imitation and the loss of customers, and the Internet has not changed this. It is more difficult to assess information on credence services, even if gathering information on the Internet. This is because knowledge of credence services requires expertise that is often limited to providers, and opportunistic behavior may prevent the provider from sharing negative, or accurate information. (Darby & Kami,1973; Williamson,1979) Customers of credence services are not, by definition, able to evaluate a credence service immediately after consumption. Any information retrieved on the Internet may not be provided by someone qualified to evaluate the service, and a costly



information search will be required to find out. Therefore, services with credence elements are likely to continue to benefit from investments in innovation, as the high cost of an information search will continue to result in high switching costs and the loyalty of their customers, even when imitators enter the marketplace.

P2: Providers of credence services will continue to engage in higher levels of innovation than imitation.

Contingency theory and “fit”

Contingency theory has been used extensively throughout the management and strategy literature (Meilich, 2006). In fact, “it is the most widely utilized contemporary theoretical approach to the study of organizations” (Scott, 1998, p.97). A contingency approach suggests that two, or more, independent variables interact to affect the dependent variable (Miller, 1991; Aiken and West, 1991). Put another way, “contingency theories, by definition, hypothesize that the relationship between two variables is “contingent” upon some third variable”, the moderator variable (Arnold, 1982:143). Much of contingency theory’s assumptions are based on the concept of congruence or “fit”. The contingency argument asserts that the appropriate “fit” between two or more independent variables will result in the expected outcome for the dependent variable, or superior performance. Likewise, a lack of fit will result in inferior performance.

This paper utilizes contingency theory to suggest that when service firms are pondering innovation/imitation strategies, they must consider the correct “fit” between the level of information asymmetry, search or credence, and strategy (innovation vs. imitation), as the correct “fit” will result in the best firm performance.

When firms innovate service elements of their service, TCE predicts that as switching costs decline barriers will erode and consumers will be more likely to switch to alternative providers, when they enter the market. As customers defect, innovative firms will find it difficult to recoup their investments and achieve a competitive advantage. TCE suggests that when a service firm offers search services a more appropriate strategy would be an imitation. Previous studies suggest that imitators can save on R&D expenses and capitalize on the mistakes of first-movers, ultimately leading to a competitive advantage (Semadeni & Anderson, 2010).

However, service firms that offer credence services, will experience higher levels of profitability through service innovation. Research has supported the contention that information searches, related to credence services, are more difficult to undertake and, therefore, more time consuming for the consumer (Mortimer&Pressey, 2013). Customers of credence services will continue to be burdened with the cost of an information search and, thus, high transaction costs. Therefore, it is more likely that a customer of innovative credence services will remain with the first mover, rather than incur the cost of an extensive information search, needed before switching. The above discussion supports the following propositions:

P3a: In firms that offer search services, higher levels of imitation will result in higher levels of profitability.

P3b: In-service firms that offer credence services, higher levels of innovation will result in higher levels of profitability.

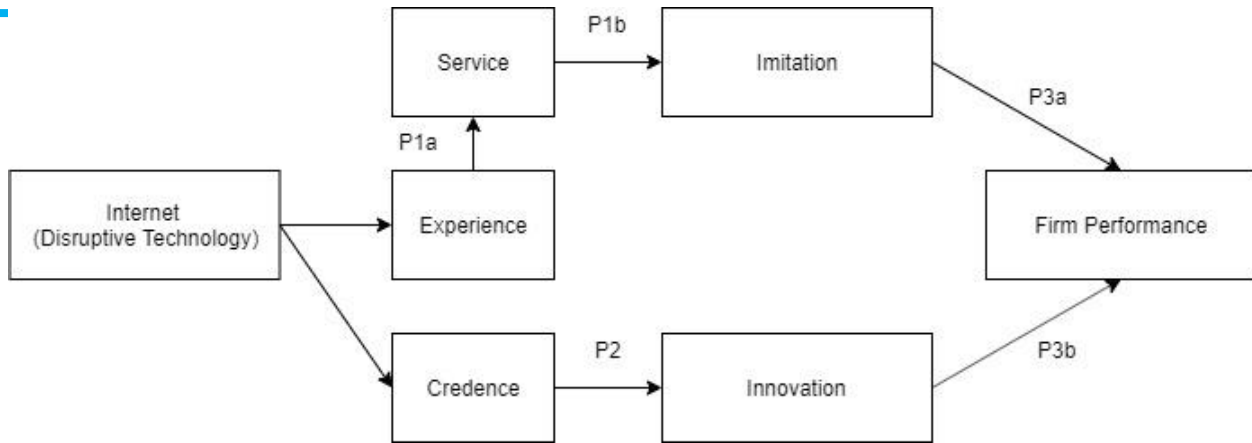


Figure 1. An Updated Model of Service Innovation and Imitation Strategies in Services

DISCUSSION

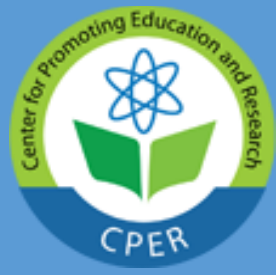
This paper proposes that the Internet is a disruptive technology that has fundamentally changed the way consumers access information when evaluating services. This requires services to rethink their innovation/imitation strategies. Earlier research supported the claim that due to the intangibility of services, and the associated information asymmetry that exists between buyers and sellers, customers are more likely to remain with their current service provider, even if they are dissatisfied with them, in order to avoid the transaction costs, associated with the effort and difficulty of an information search of an alternate provider (White & Yanamandram 2007). These switching costs act as a barrier and allowed innovative service firms to recoup their R&D investments and maximize profitability as they held their customers hostage.

The Internet, however, has created an upheaval in this process. In some instances, Consumers now have access to on-line information at a nominal cost, regarding a service offering, decreasing information asymmetry between buyer and seller. Without the existence of information asymmetry to create a barrier, service customers can switch to an imitator's service, without incurring large transaction costs in the process.

Implications

The theoretical implications from our research shine a light on transaction costs in the face changes to information asymmetry. One contribution to the services literature is our assertion that the advent of the Internet has resulted in a quandary for service firms that rely on switching barriers, erected by high levels of information asymmetry between sellers and buyers, to sustain advantage and recoup innovation investments. While once switching barriers, in the form of transaction costs, protected firms from rapid customer defection, that is no longer, necessarily, the case. One implication here is that service firms that innovate may need to reassess their innovation strategies to evaluate whether or not their service offerings still require an information search that will create switching costs for their customers. If they were offering experience services that now exhibit the characteristics of a search service, namely, low information asymmetry, their performance may be at risk. Without these barriers in place, innovation may be a losing proposition, and imitation may be a more profitable strategy, as imitators learn from first movers and improve service offerings, and avoid the R&D costs associated with innovation (Shankar et. el., 1999)

Our assertion that the Internet has created a shift in the search, experience, credence typology for services also has implications for service firms' R&D strategies. We contend that the Internet has created an environment where consumers can more readily access information about a service from the experiences of previous customers. They can now easily locate and use that information to evaluate a search service before its use. In this way, experience services become search services in that they can be evaluated before purchase. The earlier example of a hotel



evaluation is a good example of this phenomenon. The restaurant industry is another example of an industry whose experience elements shifted to largely search elements, with lower levels of information asymmetry. Before the Internet was widely available, customers generally had to wait to evaluate an eating experience until after they had purchased and consumed the service. However, now customers can use Internet technology to gather information and read reviews regarding a restaurant experience, before dining. Because previous customers have already experienced the restaurant, they are qualified and able to evaluate the service. The Internet then becomes the vehicle to share their insights with others. Service firms that can now be evaluated before purchasing and consuming the service, must now cope with easily evaluated search elements and are at the most risk of rapid imitation. These service firms should resist the temptation to jump on the innovation bandwagon, as they may want to consider an imitation strategy where they may, more easily, be able to create a competitive advantage.

While we caution firms with experience elements, now search elements, not to innovate services with low information asymmetry from innovating new services, we assert that firms with credence elements will continue to profit from innovation. Credence elements are difficult to assess even after the service is complete, due to higher levels of information asymmetry. Therefore, previous customers do not possess the knowledge to be able to accurately evaluate a service with credence elements. Information regarding the credence elements of a service are generally held by providers or sellers in the industry, and Oliver Williamson's TCE theory contends that sellers are likely to act in their own best interest, thereby not sharing negative or accurate information (Williamson,1979). Customers of credence services, therefore, still facing significant switching costs, due to the continued difficulty and cost of an information search, are more likely to remain with their current provider when a new imitator enters the market. An example can be found in healthcare. A physician may innovate a new long-term treatment for cancer and patients flock to him in hopes of a cure. Later, a physician follower enters the market by imitating the first mover and offering the same treatment. Patients of the innovator are unlikely to switch to the imitator because it is difficult, if not impossible, to assess whether the follower's treatment is as good, or better than their current provider, the first mover.

Ultimately contingency theory suggests that the R&D strategy a firm follows (imitation vs. innovation) should "fit" with the category of information asymmetry that exists in their offering. Managers should assess the existence of customer switching costs when choosing an appropriate strategy. We suggest that if the Internet has significantly lowered the cost of an information search for customers, firms will see increased performance from imitation. On the other hand, when a service firm is offering credence services, an innovation strategy is likely to improve performance.

LIMITATIONS AND FUTURE RESEARCH

This manuscript is just an initial step in the discussion of the impact of disruptive technologies on information asymmetry in service firms. We utilized a TCE framework to develop a conceptual model regarding the impact of the Internet on the relationship between the cost of an information search, innovation and imitation strategies, and firm performance. Another limitation is that we only addressed one independent variable that affects innovation, imitation, and firm performance. We recognize that while we argue that a firm's innovation strategy is a significant variable affecting service firm performance, the literature has identified many other important variables such as customer loyalty (Caemmerer, &Cattan-Jallet,2013), and customer-firm interface (Huffman & Skaggs,2010). A more robust study, addressing multiple independent variables is called for. We believe, however, that this paper opens the door for future fruitful research.

One interesting avenue would be the examination of online information regarding credence services, provided by former customers. Although customers can often find reviews on credence services, what happens when the former customers may not be qualified to evaluate the service? They likely are assessing elements of the service that have lower information asymmetry, such as wait time to see a doctor, or cleanliness of the waiting room. Are these search elements good proxies for the credence elements of the service? Future research addressing good vs. bad



information might flesh out the relationship between our variables of interest. While beyond the scope of this paper, we suspect that the quality of information on the Internet may play an important role in this research.

One limitation of this paper is the lack of empirical evidence to support our conceptual argument and model. Therefore, the logical next step should be an empirical investigation to confirm our propositions. It would also be of great interest to examine how the Internet has affected other aspects of service firms. While we focus on innovation/imitation R&D strategies, mere observation informs us that the Internet has infiltrated every aspect of firm processes and organization. Surprisingly, there is a paucity of research to examine the role of the Internet on business strategies and firm performance. For example, one might explore how service firms utilize the Internet to disseminate information to their customers, and how this information from providers is viewed by customers. This question might create another opportunity to address the shift of experience services by suggesting the information from experience service providers may be viewed as more, or less, reputable than credence service firms.

CONCLUSION

Our model is predicated on the belief that the Internet has fundamentally changed the way service customers search for information. We examine the information asymmetry typography, categorizing goods and services as having search, experience, or credence elements, put forth by (Nelson, 1970). One contribution of this paper is the suggestion that service offerings, categorized as an experience will shift to become search services, when consumers can gather information more efficiently, reducing transaction costs and toppling switching barriers. This phenomenon brings into question the judiciousness of service innovation when customers can easily switch providers without high transaction costs. We suggest that in this scenario, when experience services become search services with low levels of information asymmetry, imitation is a more profitable strategy as they learn from the mistakes of first-movers, avoid the R&D outlays invested by innovators, ultimately usurping the first-movers' customers to gain market share (Makadok, 1998).

We continue by suggesting that credence services continue to have high levels of information asymmetry, as most accurate information is held by providers or experts in the industry. Therefore, transaction costs associated with a costly information search continue to act as a barrier to switching. Therefore, when credence services innovate, they can hold customers hostage and recoup investment outlays while building brand loyalty and grabbing market share.

Finally, using a contingency theory argument, we propose that service firms, with largely search elements, are no longer able to depend on transaction costs to prevent defections by their customers when alternative providers enter the market. Therefore, for the reasons outlined above, when a firm is largely offering search components, an imitation strategy will lead to higher firm performance. However, firms that provide credence services are still protected from new entrants as customer switching costs remain high due to the continued high levels of information asymmetry and switching costs. Therefore, firms offering credence services can utilize an innovation strategy to maximize firm performance.

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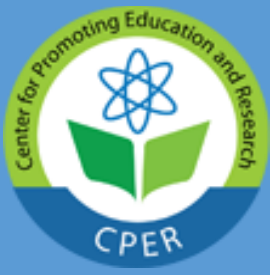
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